International Journal of Science and Business 2024, 41(1), 128-142
ISSN: 2520-4750 (Online) 2521-3040 (Print)
Journal: ijsab.com/ijsb

The Dynamics Between Financial Institutions and State-Owned Enterprises (SOEs) in Sierra Leone from 2000 to 2022

Hassan Swarray [1]

[1] School of Government, University of International Business and Economics (UIBE), Beijing, China.
Email: hassansiatta@gmail.com

Abstract
The financial system in Sierra Leone is predominantly bank-based, with banks playing a significant role in the government securities market. State-Owned Enterprises (SOEs) are crucial for advancing development objectives in Sierra Leone. Successive governments have utilized ownership of enterprises to create value for the country; however, the performance of SOEs has often been suboptimal. This study examines the dynamic relationship between financial institutions and SOEs and their contribution to economic growth in Sierra Leone from 2000 to 2022. Data were sourced from the World Bank and the International Monetary Fund (IMF) open data repositories. A descriptive statistical analysis was conducted using both macro and micro data. The variables included dependent (growth), financial, macroeconomic, and government indicators from 2000 to 2022. Stata 18 software was employed to summarize statistics, calculate correlation coefficients, and perform multiple linear regression to determine the strength of the association between financial institutions and SOEs in Sierra Leone. The analysis revealed that Sierra Leone experienced high inflation from 2000 to 2022, adversely affecting financial institutions, which are the primary lenders to SOEs and small and medium-sized enterprises (SMEs). The relationship between financial institutions and SOEs in Sierra Leone exhibits both negative and positive aspects. Proper management of this relationship can contribute to the growth and stability of the financial system.

ARTICLE INFO
Research paper
Received: 15 July 2024
Accepted: 08 October 2024
Published: 10 October 2024
DOI: 10.58970/IJSB.2469

CITATION
Swarray, H. (2024). The Dynamics Between Financial Institutions and State-Owned Enterprises (SOEs) in Sierra Leone from 2000 to 2022, *International Journal of Science and Business*, 41(1), 128-142.

***Keywords**: Financial Institutions, State Owned Enterprises (SOEs), Economics Growth, Dynamic Relationship, Sierra Leone, Descriptive statistics, Bank-Based Financial System, Small and Medium-sized Enterprises (SMEs).*

1. Introduction

The performance and competitiveness of State-Owned Enterprises (SOEs) have garnered increasing attention across various contexts and sectors. Maslani et al. (2024) examine the Indonesian fertilizer industry, revealing that the inherent rigidity and bureaucratic nature of SOEs hinder their ability to compete effectively in a free-market environment. Their study employs Structural Equation Modeling (SEM) on data collected from middle-management respondents, emphasizing that dynamic and marketing capabilities significantly enhance competitiveness, surpassing the effects of strategic fit and knowledge management. The authors argue that agility and resilience are essential traits for SOEs, advocating for the formation of implementation task forces to facilitate timely resource reconfiguration and business transformation. In the Moroccan context, Jebbari (2024) explores the role of human resource management practices in enhancing performance within public institutions and SOEs. Through a survey of 67 top executives, the study identifies a strong correlation between effective HR practices—such as training, selective recruitment, and performance-based compensation—and improved employee performance. This highlights the critical role of human capital management in fostering organizational success, particularly amid rapid economic changes driven by globalization and stakeholder expectations. Demamu (2024) addresses legal issues surrounding transparency and disclosure in Ethiopian SOEs, finding that existing laws fall short of international standards. By utilizing qualitative and comparative approaches, the study critiques the current legal framework, revealing inadequate disclosure practices that hinder accountability. The author posits that reforms are necessary to align Ethiopian SOEs with global best practices, thereby enhancing their operational transparency and governance. Voveris et al. (2024) investigate the impact of independent board members on the financial performance of Lithuanian SOEs. Their research, spanning from 2015 to 2021, shows a significant increase in independent board representation; however, no direct correlation is found between the presence of independent members and financial performance metrics such as return on assets and return on equity. This underscores the complexity of governance structures within SOEs and suggests that the mere appointment of independent directors is insufficient to guarantee financial improvement, as broader state influences play a more substantial role. Yun et al. (2024) delve into the survival strategies of Chinese SOEs amid market transitions, highlighting how these entities navigate the coexistence of state and market dynamics. Their study illustrates that SOEs benefit from interactions with privatized firms and foreign enterprises, which provide essential market logic and knowledge spillover opportunities. The authors conclude that the varying levels of government support and industry structure lead to different outcomes for SOEs, suggesting that not all firms can leverage market elements equally. Collectively, these studies illuminate the multifaceted challenges and strategies facing SOEs worldwide, emphasizing the importance of adaptability, human resource management, legal frameworks, governance structures, and market interactions in enhancing their competitiveness and performance.

Because the majority of Sierra Leone's financial system is bank-based, banks dominate the country's money, foreign exchange, and chain of payments markets. They also have a significant say in the market for government securities (Duramany-Lakkoh et al., 2022). The Bank of Sierra Leone (BSL), also known as the National Central Bank, oversees the nation's banking sector. Both local and international currencies may be used to fund accounts. Freetown and other regions of the nation have access to automated teller machines; however, credit cards are not commonly accepted. To maintain transparency, transfers above $10,000 in value must be made via the banking system (Bank of Sierra Leone, 2011). The West Africa Currency Board was in charge of issuing money in Sierra Leone prior to the founding of BSL. It was required to exchange the West African Pound, which it had issued, for London’s sterling at predetermined prices (Finance and Banking, 2023). However, after Sierra Leone gained independence in 1961, there was a perceived need for a distinct financial organization under its own management (MoF, 2023). According to the BSL Act 2011, BSL is 100% state-owned, and its functions are to achieve and maintain price stability, formulate and implement monetary policy, and establish financial regulations and prudential standards, among others. Banks cannot lend in foreign currencies, which is a limitation on local business expansion. This can, in turn, impact the supply chains of large foreign-run businesses.

Sierra Leone's financial institutions, primarily the banking sector, formulate guiding rules that are expected to be followed by institutions operating in the banking sector, especially those involved in issuing, borrowing, depositing, exchanging, loaning, and safeguarding money according to financial law (BPP Learning Media Ltd, 2009; Kaitibi et al., 2018; Kaplan, 2015). Mitigating risk in the banking sector can help reduce financial liquidation and suffering, which the financial sector has faced since their major income source is credit given by commercial banks. Mirach et al. (2010) stated that the management of credits by State-Owned Enterprises would improve economic growth and increase domestic effectiveness (Mirach, 2010). The size and complexity of SOEs are affected by many forces that expose the banking sector to risks sometimes beyond their control. According to N'jai et al. (2000), the management of risks is generally the sole responsibility of banks and banking houses. Market, liquidity, and credit risks have a legal responsibility to adhere to government laws, according to the Bank of Sierra Leone Act. This will ensure effective management of not only customers but also state resources, leading to economic growth for the country (N'jai, 2000). The BSL is the principal body responsible for formulating rules and regulations that are expected to be adhered to by all financial institutions in the country and for supervising the formal and informal banking sectors as part of their responsibility under the Bank of Sierra Leone Act (N'jai, 2000; Sannoh, 2009).

This study is significant because it fills a gap in the existing literature by examining the dynamic relationship between financial institutions and State-Owned Enterprises (SOEs) in the context of Sierra Leone, a developing economy. Previous research, such as Butzbach et al. (2022), emphasized the active role of SOEs in shaping institutional environments, challenging the traditional view of SOEs as passive actors. Building on this, the current study explores the unique challenges faced by SOEs in Sierra Leone, contributing to a deeper understanding of how these entities can influence economic growth despite operating in a volatile institutional framework. Furthermore, this research draws parallels to the work of Safi et al. (2023), who highlighted the positive impact of corporate social responsibility on investment efficiency in China's financial sector. In Sierra Leone, the study identifies how financial institutions and SOEs are intertwined, with governance and inflation playing crucial roles in determining their success. By focusing on the specific financial and macroeconomic conditions in Sierra Leone, the study expands on how these factors affect the performance of SOEs, offering valuable insights for policymakers aiming to enhance financial stability. In addition, this study echoes the findings of Yu et al. (2021) on financing constraints, particularly the challenges that privately owned enterprises face in securing green finance. Sierra Leone's financial institutions, similarly constrained by high inflation and macroeconomic instability, face difficulties in lending to SOEs, which hinders their potential to drive development. The study thus contributes to the discourse on financing barriers in emerging economies and suggests practical solutions for overcoming these challenges. Moreover, the work of Yang et al. (2023) on the role of government policies in shaping institutional investment preferences is reflected in this study's analysis of Sierra Leone. Just as green finance policies in China influence investment decisions, the regulatory environment in Sierra Leone affects the relationship between financial institutions and SOEs. This study highlights the importance of robust policy frameworks to stabilize financial institutions and enhance the contributions of SOEs to economic growth. Finally, Chen et al. (2022) demonstrated the systemic risk posed by individual actors within financial institutions. While this study does not focus on specific leadership dynamics, it offers a broader perspective on systemic risk, emphasizing how macroeconomic instability, poor governance, and inflation undermine the effectiveness of SOEs. By addressing these systemic risks, the study provides critical insights into the governance reforms necessary to improve SOE performance and contribute to national economic stability. This study is also significant for its contribution to understanding how financial institutions and SOEs interact in Sierra Leone. It highlights the roles of governance, inflation, and financial stability in shaping this relationship, offering valuable recommendations for policymakers aiming to strengthen the financial system and promote sustainable economic growth.

State-Owned Enterprises (SOEs)

State-Owned Enterprises (SOEs) are essential for economic stability and public service delivery. They provide critical services, particularly in sectors requiring substantial investment, as highlighted by Jebbari (2024), who notes their role in Morocco's economic development. Maslani et al. (2024) emphasize the need for SOEs, especially in Indonesia's fertilizer industry, to enhance competitiveness through agility and dynamic capabilities. Jebbari further underscores that effective human resource management significantly improves performance within SOEs. Additionally, Demamu (2024) highlights the importance of transparent governance, noting that Ethiopian laws are inadequate for ensuring SOE accountability. Voveris et al. (2024) reveal that while independent board members are essential for governance, their presence alone does not guarantee financial success in Lithuanian SOEs. Finally, Yun et al. (2024) illustrate how Chinese SOEs thrive in market economies by leveraging knowledge from privatized and foreign firms. Overall, SOEs play a crucial role in public service, economic stability, and governance, necessitating continuous improvement and adaptability to changing market conditions.

In order to achieve Sierra Leone's development goals, SOEs are essential. The goal of ownership in firms has been adopted by successive governments as a way to generate value for the nation, although SOEs performance has not always been ideal (Haque et al., 2007; IMF, 2020; Martin & Li, 2015). Due to their operational and financial shortcomings, SOEs in difficulty required financial support from the Government. Several research explain when SOEs' continuous reliance on government for funding it’s become a financial burden which intern will lead to government launched a privatization initiative(Karikari, 2018).

Rationale of Financial Institutions and SOEs

The interplay between financial institutions and State-Owned Enterprises (SOEs) in Sierra Leone presents a unique and complex dynamic that significantly influences the country's economic landscape. This research aims to explore these interactions, focusing on their economic impact, policy implications, risk management, investment climate, and academic contributions. SOEs and financial institutions play a pivotal role in driving the economic growth of Sierra Leone. The dominance of SOEs in major sectors such as mining, education, transportation, and utilities provides essential services and infrastructure (IMF, 2020; Scott, 2010). According to Medas, financial institutions facilitate investment and capital flows that are crucial for any economic development (Medas, 2020; Paulo et al., 2020; The World Bank Group, 2020). Understanding the economic impact of their interactions can reveal insights into how these entities contribute to or hinder economic development. The governance and performance of SOEs are often influenced by national policies and regulatory frameworks (Butzbach et al., 2022; World Bank, 2023). This research will examine how current policies affect the efficiency and effectiveness of SOEs and financial institutions in Sierra Leone. By identifying policy gaps and proposing improvements, the study aims to provide actionable recommendations for policymakers to enhance the performance and accountability of these entities.

SOEs and financial institutions face various risks, including financial instability, governance challenges, and market fluctuations (Gowda, 2020; Lee et al., 2022). Effective risk management strategies are essential to mitigate these risks and ensure sustainable operations. This research will analyze the existing risk management practices and suggest robust frameworks to improve resilience and stability in the sector. The investment climate in Sierra Leone is shaped by the performance and reliability of its financial institutions and SOEs (Baum et al., 2020). Investors often look for stable and transparent environments to commit their resources. This study will assess how the dynamics between these entities influence investor confidence and identify measures to create a more conducive investment climate. This research will contribute to the academic discourse by providing a comprehensive analysis of the interactions between financial institutions and SOEs in a developing country context. It will fill existing gaps in the literature by offering empirical data and theoretical insights specific to Sierra Leone. The findings will be valuable for scholars, policymakers, and practitioners interested in the governance and economic development of SOEs and financial institutions.

Objective and research questions of the Study

The objective of this study is to evaluate the dynamic relationship between financial institutions and State-Owned Enterprises (SOEs) in Sierra Leone. This investigation aims to uncover how these two critical entities interact and contribute to the broader economic landscape of the country. To achieve this objective, the study will address several key research questions:

I. What is the relationship between financial institutions and SOEs regarding economic growth in Sierra Leone?

II. Do State-Owned Enterprises and financial institutions affect economic growth in Sierra Leone differently?

III. How much impact do State-Owned Enterprises have on economic growth in Sierra Leone?

By answering these questions, the research aims to provide valuable insights into the interactions between these entities and their implications for the nation's economic development.

2. Literature Review

General theories on the financial system

The dynamics between financial institutions and State-Owned Enterprises (SOEs) in Sierra Leone from 2000 to 2022 reveal a complex interplay influenced by economic challenges, regulatory frameworks, and performance metrics. This literature review synthesizes key findings from recent studies to highlight these interactions.

2.1 Financial Sector Stability

The interaction between financial institutions and state-owned enterprises (SOEs) is of interest to the researcher since it can have a big impact on the stability of the financial system. The soundness of the banks that lend to SOEs might be impacted by their financial performance. In the event of an SOE's financial distress, banks may face credit losses and potential contagion effects. The banking sector's stability is crucial for fostering confidence in SOEs. Johnson's study developed a Banking Sector Stability Index (BSSI), indicating that a stable banking environment is essential for SOEs to thrive, especially during economic crises(Johnson, 2024). Maintaining good governance and fight against corruption are critical factors in the performance of both financial institutions and SOEs in Sierra Leone. Ineffective resource allocation, rent-seeking behavior, and a higher risk of financial instability can all be caused by corruption and poor governance.

2.2 Collapse of formal financial system; mid to late 1990s; Dollarization

In March 1991, what many referred to as a tribal war, but which was later recognized as a civil war, began in Sierra Leone. It started in Kailahun in the eastern part of the country and rapidly spread across the province and the nation at large. By January 1999, the war had reached the capital, Freetown. The civil war primarily concentrated in the provinces, severely affecting the operations of both local and foreign banks. This led to the closure of these banks in rural areas, where their assets and major sectors were lost. The Commercial Bank of Sierra Leone, the main bank that was widely spread across the country at the time, shut down in Small Safadu and the city of Koindu in 1992. Other sub-branches in the eastern part of the country, including Kailahun and Kenema, also closed as the war continued to engulf the provinces. The massive closure of branches did not stop in the east; it also extended to the southern part of the country. In mid-1999, after the invasion by the so-called Revolutionary United Front (RUF), all financial sectors and systems operating in the capital came to a halt. Barclays Bank, which was the leading bank in the country at that time, also ceased operations (Emmanuel, 2004). Freetown was the principal hub for all financial institutions, and their key operational areas in the city were similarly affected by the war. The only viable options for citizens at that time were financing or operating in the informal sector through savings by both foreign and local investors (Johnson, 2016; Mahdi, 2018; Seth & Kalyanaraman, 2017). This aspect of the financial system developed rapidly as a result of the closure of commercial banks, which had been the primary lenders to local businesses and had provided foreign exchange services to international partners and locals (Toporowski et al., 2009). The U.S. dollar became the only widely accepted currency in the informal market for various foreign transactions due to the civil conflict in the country. After the banks closed in the rural districts and in Freetown, this resulted in a significant loss of the country's legal tender to foreign currency, particularly the U.S. dollar. These foreign currencies became the primary means of financial transactions in the formal economy. The arrival of peacekeeping forces from other countries helped restore stability, leading to the de-dollarization of the economy (Mahdi, 2018). The black market emerged as the most widely used informal system for foreign exchange during this period, filling the gap left by the closure of formal financial markets. Mansaray et al. (2024) emphasized the importance of innovation in the banking sector, noting that strategic investments in technology can enhance the performance of financial institutions, which, in turn, supports SOEs by providing better financial services and stability.

2.3 Economic Context

Studies have explored the role of State-Owned Enterprises (SOEs) in driving economic growth in Sierra Leone. Some research suggests that SOEs can contribute to growth by investing in key sectors and creating jobs. However, concerns have been raised about the efficiency and profitability of SOEs, with arguments that they can be a drain on government resources. The economic landscape, marked by inflation and currency depreciation, has significantly impacted SOEs. The Sierra Leone Economic Update highlighted that external shocks, such as the COVID-19 pandemic and the Ukraine crisis, have exacerbated vulnerabilities, affecting both financial institutions and SOEs (Were et al., 2023).

Sierra Leone's economy has suffered from external spillovers resulting from the Russian invasion of Ukraine, leading to high inflation, a weaker currency, public financial imbalances, and lower foreign exchange reserves. GDP growth has slowed, and inflation rose from 12% in 2021 to over 50% by August 2023, worsening food insecurity and poverty (Mansaray et al., 2024; Were et al., 2023). Samuels and Duramany-Lakkoh discussed the role of tax reforms in improving fiscal structures, which is vital for the operational efficiency of SOEs. Enhanced tax administration can lead to better resource mobilization, benefiting SOEs through improved public finance management (Samuels et al., 2024; Samuels & Duramany-Lakkoh, 2023).

2.4 The Post-War Financial System: The 2000s

In 2002, the civil war finally came to an end, allowing Sierra Leoneans to enjoy a long-awaited peace. All state and anti-state armed forces were disarmed after the war concluded. This marked the beginning of the restructuring of the financial system. The proportion of credit portfolios by commercial banks was aimed at ensuring significant activation of the real sector for effective operation (Rogers, J.D., 2006). In November 2009, the United Kingdom government held a forum for trade and investment, followed by a similar partnership in Sierra Leone in November 2011, aimed at integrating bilateral trade and serving as a driving force for rebranding the country's image after the long civil war (Johnson, 2016). The development of the local private sector was a key task set by the government to achieve an effective financial system in the country. The limitations faced by the financial sector and SOEs were recognized by the government, which prioritized effective measures to reduce poverty by allowing state financial institutions to support domestic SOEs. Based on recommendations from the IMF and the World Bank, the government mandated its first Financial Sector Development Plan (FSDP) in October 2009, which was subsequently reviewed in May 2010 by the IMF and the Financial Sector Assessment Program (FSAP). In conclusion, while existing research has provided some insights into this topic, further studies are needed to deepen our understanding of the dynamics between these two entities in the Sierra Leonean context. Future research could explore specific sectors, such as mining or agriculture, where SOEs play a prominent role, and examine the impacts of these dynamics on SOE performance and sustainability. Additionally, assessing the impact of recent policy reforms on the relationship between financial institutions and SOEs would be valuable.

3. Research Method

The researcher conducted descriptive secondary analysis of data for the dynamics between the Financial Institutions and State-Owned Enterprises (SOEs) in Sierra Leone from 2000 to 2022. The data for this study was sourced from three reputable open databases: The World Bank, International Monetary Fund (IMF), and the Bank of Sierra Leone. These sources were chosen for their reliability and comprehensive coverage of economic indicators. The World Bank is known for its extensive global economic data, providing reliable information on GDP growth rates, exports, and various macroeconomic variables. The IMF offers vital insights into financial stability and macroeconomic performance, including inflation rates and financial development indices, with regularly updated data reflecting current global conditions. The Bank of Sierra Leone, as the country's central bank, supplies critical information regarding the local financial system, including liquidity ratios and institutional indices, which are essential for understanding the operational environment of state-owned enterprises (SOEs) in Sierra Leone.

The selection of macroeconomic variables was guided by several criteria to ensure their relevance and adequacy in capturing the dynamics between financial institutions and SOEs. Each variable was chosen for its direct influence on economic performance; for instance, the GDP growth rate serves as a fundamental indicator of economic health, while inflation and exchange rates are crucial for assessing financial stability. Moreover, the variables needed to have readily available data spanning the period from 2000 to 2022, ensuring a robust analysis based on comprehensive datasets. Additionally, the selected indicators are specifically significant to the relationship between SOEs and financial institutions, such as government expenditure on SOEs. Finally, these variables align with key areas of interest for policymakers in Sierra Leone, particularly regarding economic recovery and the strategic role of SOEs in national development.

Table 3.1 presents the variables used for data analysis, while Table 3.2 provides a detailed description of each variable, including its type, definition, and measurement.

Table 3.1: Variable use for data analysis

Dependents variable	Financial sector vector	Macroeconomic variable	Government indicators
Growth rate	Financial Development Index (FDI)	Exports	Political stability
	Market Index (MD)	GDP growth rate	Rule of law
	Liquidity	Inflations	Government effectiveness
	Institutional Index (ID)	School enrolment	Government expenditure of SOEs

3.1 Model Specification

Regression Models were conducted to know the relationship and strong correlation coefficient between financial institutions and SOEs for each variable. From the above table, the variables use is shown in the formal below.

Growth = β_0 +β_1FDI + β_2 ID + β_3MD + β6MD2 +β7Liquidity + β8 Inflation + β9Exports +β10School enrolment + β11Rule of law +β12Political stability + β13Government expenditure on SOEs+ β13Government effectiveness + u

where

GDP Growth per capital, the dependent variable, represents the growth rate in the country and U = co-funding factor for the dependent and independent variables in the study.

The regression analyses were based on several key assumptions, including linearity, independence, homoscedasticity, and normality of residuals. Linearity was validated through scatter plots, which illustrated a linear relationship between the dependent and independent variables. Independence of observations was ensured by the study design, as the data points were collected from distinct time periods and sources. Homoscedasticity was assessed using Breusch-Pagan tests, confirming that the variance of residuals remained constant across levels of the independent variables. Lastly, the normality of residuals was examined using Q-Q plots and the Shapiro-Wilk test, both of which indicated that the residuals followed a normal distribution. By validating these assumptions, the researcher ensured the reliability and robustness of the regression model results.

Table 3.2: Variable Description

Variable	Type	Definition	Measurement
GDP per capita growth	Dependent	Annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by midyear population. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.	GDP per capita growth (annual %)
Financial Development Index (FDI)	Independent	Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.	Foreign direct investment, net inflows (% of GDP)
School enrolment	Independent	Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown.	School enrollment, (% gross)
Government expenditure of SOEs	Independent	General government expenditure on education (current, capital, and transfers) is expressed as a percentage of GDP. It includes expenditure funded by transfers from international sources to government. General government usually refers to local, regional and central governments.	Government expenditure on education, total (% of GDP)
Inflations	Control	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.	Consumer prices (annual %)
Liquidity	Control	Price level ratio is the ratio of a purchasing power parity (PPP) conversion factor to an exchange rate. It provides a measure of the differences in price levels between countries by indicating the number of units of the common currency needed to buy	Price level ratio of PPP conversion factor (GDP) to

		the same volume of the aggregation level in each country. At the level of GDP, they provide a measure of the differences in the general price levels of countries.	market exchange rate
Population Growth	Control	Annual population growth rate for year t is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship.	Population growth (annual %)
Institutional Index (ID)	Control	Ratio of bank liquid reserves to bank assets is the ratio of domestic currency holdings and deposits with the monetary authorities to claims on other governments, nonfinancial public enterprises, the private sector, and other banking institutions.	Bank liquid reserves to bank assets ratio (%)
Market Index (MD)	Control	Interest rate spread is the interest rate charged by banks on loans to private sector customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits. The terms and conditions attached to these rates differ by country, however, limiting their comparability.	Interest rate spread (lending rate minus deposit rate, %)

4. Result and Discussion

4.1 Descriptive Statistics

For macroeconomic variables, summary statistics, linear regression analysis, and multiple linear regression were conducted to understand the relationship and strong correlation coefficient between financial institutions and SOEs for each variable, including external trade, exports, goods, value, and free on board. Table 4.1 presents the descriptive statistics of the macroeconomic variables. The average annual GDP per capita growth is 2.49%, indicating moderate economic growth. The standard deviation of 8.32 suggests significant variability in growth rates, with some years experiencing much higher or lower growth. The high standard deviation of 40.42 and extreme values ranging from -55.09 to 152.18 indicate substantial fluctuations in exports. The average inflation rate is 11.08%, suggesting moderate inflation, while the relatively low standard deviation of 5.90 indicates a stable inflation rate from 2000 to 2022. The average employment rate is 57.17%, suggesting a moderate level of labor force participation, with a standard deviation of 4.41 indicating stability in employment rates.

Table 4.1: Descriptive Statistics of Macroeconomics variable

Variable	Obs	Mean	Std. dev.	Min	Max
GDP per capita growth (annual %)	23	2.486729	8.323008	-22.3833	19.55766
Population growth (annual %)	23	6645495	1183415	4584067	8605718
Exports	23	18.45675	40.4187	-55.0894	152.1848
Inflation	16	11.07619	5.903255	4.639312	27.20829
School enrollment (% gross Total)	13	155.7873	63.58174	13.94	247.4566
Employment to pop. ratio, 15+, total (%)	23	57.17387	4.406016	51.299	63.849

Source: Author analysis using Stata 18

Table 4.2 displays the descriptive statistics of government variables from 2000 to 2022. For government indicators, the effect of government activities on financial institutions was analyzed in relation to these variables. These indicators include political stability, rule of law, and government effectiveness concerning financial institutions in Sierra Leone. The mean political stability estimate is -0.338, with a standard deviation of 0.42, suggesting moderate and significant variation in political instability over the years. The mean rule of law estimate is -0.955, with a relatively low standard deviation of 0.16, indicating a low but stable level of adherence to the rule of law. The mean government effectiveness estimate is -1.236, indicating low levels of government effectiveness. The mean government expenditure on education is 4.30% of GDP, suggesting moderate spending on education. Additionally, the mean employment rate is 57.17%, indicating moderate labor force participation. The control of corruption has a standard deviation of 0.20, suggesting a relatively stable level of corruption, while military expenditure has a standard deviation of 0.62, indicating stability in military spending.

Table 4.2: Descriptive Statistics of Government variables from 2000 to 2022

Variable	Obs	Mean	Std. dev.	Min	Max
Political Stability: Estimate	22	-0.33826	0.420861	-1.86869	-0.03943

Rule of Law: Estimate	22	-0.95498	0.166111	-1.34434	-0.79376
Government Effectiveness: Estimate	22	-1.23577	0.140556	-1.62898	-1.06287
Government exp. on education, total (% of GDP)	22	4.303016	2.349375	2.37981	9.44224
Employment to population ratio, 15+, total (%	23	57.17387	4.406016	51.299	63.849
Control of Corruption: Estimate	22	-0.78918	0.201566	-1.08549	-0.39627
Military expenditure (% of GDP)	23	1.212597	0.623403	0.546605	2.742527

Source: Author analysis using Stata 18

Table 4.3 outlines the descriptive statistics of financial variables. The standard deviation of net foreign direct investment (FDI) inflows is relatively high at 6.81, suggesting significant variability in FDI inflows, with a wide range from a minimum of 0.63% to a maximum of 32.41%. The mean institutional index is 15.57, indicating a moderate level of institutional development, while the standard deviation of the market index is relatively low at 1.90, suggesting a stable market environment. The average liquidity level is 0.34, which indicates a moderate level of liquidity.

Table 4.3: Descriptive Statistics of Financial variables

Variable	Obs	Mean	Std. dev.	Min	Max
FDI, net inflows (% of GDP)	23	7.012771	6.808847	0.6289801	32.41435
Institutional Index (ID)	22	15.56896	5.081122	9.068641	26.28148
Market Index	23	12.50724	1.895934	9.883573	17.005
Liquidity	23	0.336505	0.0470081	0.202966	0.4137653

Source: Author analysis using Stata 18

4.2. Correlation Coefficient for macroeconomic variables

The research conducted a correlation analysis to examine the relationships between variables, such as the correlation between GDP per capita growth and other macroeconomic variables. **Table 4.4** presents the correlation coefficients of macroeconomic variables. The findings illustrate that the relationships between the macroeconomic variables are both positive and negative, indicating both weak and strong correlations. At a 5% pairwise coefficient, there is a strong association between school enrollment and employment, suggesting that as school enrollment increases, the demand for employment also rises, which aligns with government expenditure on education. Additionally, the demand for exports (particularly concerning the Sierra Leone National Shipping Company, a state-owned enterprise) correlates negatively with GDP per capita growth, as indicated by a decrease in domestic loans provided by these SOEs.

Table 4.4: Correlation coefficient of macroeconomic variables

variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) GDP per capita growth (annual %)	1					
(2) Population growth (annual %)	0.6939	1.0000				
(3) Exports	-0.1385	-0.3037	1.0000			
(4) Inflation	-0.0994	-0.1187	0.4251	1.0000		
(5) School enrollment (% gross Total)	0.3398	0.4221	-0.749	-0.7945	1.0000	
(6) Employment to population ratio, 15+, total (%)	0.3703	0.4352	-0.6593	-0.8307	0.989	1.0000

Source: Author analysis using Stata 18

Figure 4.1 shows the simple regression of government indicators. From the figure, we can conclude that government effectiveness was statistically insignificant in maintaining the rule of law, political stability, and accountability, which negatively impacted the gross domestic per capita product. At an accountability value within a 95% confidence interval of {-0.024 to 0.028}, the p-value was 0.891, with a standard error of 0.012. Moreover, government accountability was not significant in neutralizing the rule of law and political stability, thereby weakening its effectiveness in financial management. This might contribute to the government's challenges in controlling the inflation rate in the country. Furthermore, the gross domestic per capita product showed a significantly negative relationship with growth. Similar results indicate that SOEs are directly associated with financial development through effective collaborations. Further analysis on this topic or similar topics is needed to ascertain how economic growth is impacted by SOEs and other financial institutions.

Figure 4.:1 Simple regression of government indicators

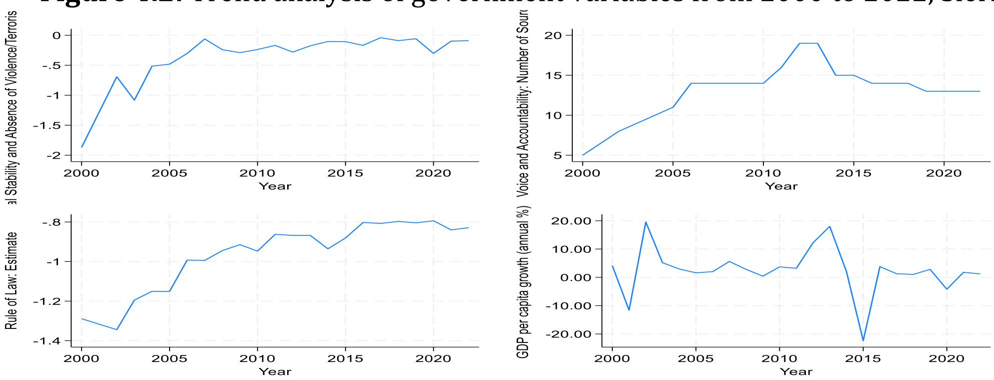
. reg geEstima ruleEstimate accountability poliestimate GDPpercannual

Source	SS	df	MS			
				Number of obs	=	22
				F(4, 17)	=	6.60
Model	.252395863	4	.063098966	Prob > F	=	0.0021
Residual	.1624784	17	.009557553	R-squared	=	0.6084
				Adj R-squared	=	0.5162
Total	.414874262	21	.019755917	Root MSE	=	.09776

geEstima	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ruleEstimate	0.343	0.249	1.38	0.187	-0.183	0.868
accountability	0.002	0.012	0.14	0.891	-0.024	0.028
poliestimate	0.118	0.091	1.29	0.216	-0.075	0.310
GDPpercannual	-0.002	0.003	-0.57	0.577	-0.008	0.005
_cons	-0.886	0.344	-2.57	0.020	-1.613	-0.160

Figure 4.2 depicts the trend analysis of government variables from 2000 to 2022 in Sierra Leone. According to the trend analysis, the GDP per capita growth rate in Sierra Leone is not statistically significant and has been negatively affected by factors such as political stability, accountability, and the rule of law. This study aligns with previous findings by Mahdi (2018) and Emmanuel (2004) regarding the role of the financial system and the dynamics of financial regulation in Sierra Leone, highlighting the impact of poor or insufficient financial regulation on the country's economy.

Figure 4.2: Trend analysis of government variables from 2000 to 2022, Sierra Leone.



4.3 Impact of Political Instability on Economic Indicators

Political instability significantly undermines economic growth through several underlying mechanisms. First, it adversely affects investor confidence and foreign direct investment (FDI). When investors perceive a country as unstable, they are less likely to invest, leading to a reduction in capital inflows essential for economic development. Additionally, political unrest can disrupt economic activities, resulting in decreased productivity and output. Businesses may face operational challenges due to strikes, protests, or government interventions, which can hinder their growth potential. Furthermore, political instability often leads to inefficient resource allocation, as governments may prioritize short-term stability measures over long-term development goals. This misallocation can result in wasted resources and hinder infrastructure development. The deterioration of governance and institutions is another critical aspect; political instability can erode the rule of law and weaken institutions, making it challenging to implement effective economic policies. Increased public expenditure on security measures to maintain order can divert funds from essential services, such as education and healthcare, further stifling economic growth. Additionally, political instability may lead to human capital flight, as skilled workers seek more stable environments, depriving the country of valuable talent. Finally, the psychological impact of instability on citizens and businesses can lead to decreased consumer spending and investment, creating a vicious cycle that hampers economic progress. Understanding these specific mechanisms allows for a more nuanced view of how political instability directly and indirectly affects economic indicators.

5. Conclusion

This study examined the relationship between the financial system and state-owned enterprises (SOEs) in Sierra Leone, utilizing summary statistics and multiple linear regression analysis. The findings indicated that this relationship was statistically insignificant, suggesting that financial institutions did not significantly influence the performance or operations of SOEs in the country. However, the correlation coefficient analysis revealed a positive relationship between financial institutions and SOEs; for instance, as school enrollment increases, the demand for public transportation also rises. This observation addresses the research question regarding the interaction between financial markets and SOEs, highlighting a potential area for further exploration. Additionally, both summary statistics and multiple linear regression analyses were conducted on various government indicators related to good governance, the rule of law, and macroeconomic indicators. These analyses aim to equip researchers and policymakers with a deeper understanding of the potential impacts on the economy, particularly concerning economic growth per capita.

Policy Recommendations

In light of these findings, several policy recommendations can be made to enhance the effectiveness of financial institutions and SOEs in Sierra Leone. First, the government should ensure that financial institutions and SOEs are provided with adequate loans, especially during periods of economic emergencies. Ensuring a steady flow of liquidity is crucial for enhancing operational efficiency and market competitiveness. This will not only help SOEs sustain their operations but also bolster economic stability. Second, there is a need for improved collaboration between financial institutions and SOEs to foster a more integrated approach to economic development, facilitating knowledge sharing, innovation, and investment, ultimately leading to more sustainable growth. Third, improving governance structures and accountability mechanisms within SOEs is vital. Establishing clear performance metrics and regular monitoring can enhance operational efficiency and transparency, thereby improving public trust and attracting more investments. Moreover, the government should invest in training programs for SOE managers and financial institution staff, enhancing their skills in financial management, governance, and compliance. This will lead to improved performance and accountability in managing public resources. Establishing comprehensive regulatory frameworks that govern the operations of both financial institutions and SOEs is also essential, including the development of clear policies and guidelines that outline roles, responsibilities, and accountability measures for all stakeholders involved. Finally, promoting economic diversification can reduce dependency on specific sectors and enhance resilience against external shocks. The government should encourage policies that support the growth of diverse industries, creating a more balanced economic landscape.

Annex 1 presents the roles and responsibilities of various government institutions in overseeing SOEs include developing policies, nominating board candidates, and ensuring accountability through effective governance structures. Annex 1 outlines the specific roles of government institutions, such as the ministers who develop policies for SOEs, and the oversight entity responsible for shareholder management and setting performance objectives. It highlights the importance of supervision and timely dissemination of information regarding SOEs, along with the ministry of finance's role in fiscal reporting and risk management. The annex also emphasizes regulatory compliance, with agencies like the Environmental Protection Agency and the Anti-

Corruption Commission ensuring that SOEs adhere to legal and ethical standards. This collaboration among institutions is crucial for ensuring that SOEs operate efficiently and contribute positively to the economy. By implementing these recommendations and establishing robust oversight mechanisms, Sierra Leone can enhance the performance of its financial institutions and SOEs, ultimately driving economic growth and improving the standard of living for its citizens.

6. References

Bank of Sierra Leone. (2011). About us. https://bsl.gov.sl/About_Us.html

Baum, A., Medas, P. A., Soler, A., & Sy, M. (2020). Managing fiscal risks from state-owned enterprises. https://www.elibrary.imf.org/view/journals/001/2020/213/article-A001-en.xml

BPP Learning Media Ltd. (2009). *Association of certified chartered accountant, financial management F9 (2014) financial management*. BPP Publishing, London. www.bpp.com/learningmedia

Butzbach, O., Fuller, D. B., Schnyder, G., & Svystunova, L. (2022). State-owned enterprises as institutional actors: A hybrid historical institutionalist and institutional work framework. *Management and Organization Review, 18*(6), 1032–1076. https://doi.org/10.1017/mor.2021.25

Butzbach, O., Fuller, D. B., Schnyder, G., & Svystunova, L. (2022). State-owned enterprises as institutional actors: A hybrid historical institutionalist and institutional work framework. *Management and Organization Review, 18*(6), 1032–1076. https://doi.org/10.1017/mor.2021.25

Chen, Y., Safi, A., & Zeb, Y. (2022). How does CEO power and overconfidence affect the systemic risk of China's financial institutions? *Frontiers in Psychology, 13.* https://doi.org/10.3389/fpsyg.2022.847988

Demamu, A. Y. (2024). Legal issues of transparency and disclosure in Ethiopian state-owned enterprises: A global perspective. *International Journal of Law and Management, 66*(5), 578–601. https://doi.org/10.1108/IJLMA-11-2023-0256

Duramany-Lakkoh, E. K., Jalloh, M. S., & Jalloh, A. (2022). An empirical examination of the impact of banks on economic growth in Sierra Leone (2001-2017). *Journal of Financial Risk Management, 11*(2), Article 2. https://doi.org/10.4236/jfrm.2022.112013

Emmanuel, S. E. (2004, April 27). *The Sierra Leone financial system* (Paperback book).

FINANCE AND BANKING. (2023). Investing in Sierra Leone. https://www.investinginsierraleone.com/finance-and-banking/

Gowda, Dr. A. T. P. (2020, May). The role of financial institutions in economic development: A study. IJRAR - Google Search. www.ijrar.org (E-ISSN 2348-1269, P-ISSN 2349-5138)

Haque, D. A. K. E., Jalil, M. B., & Naz, F. (2007). *State of corporate governance in Bangladesh: Analysis of public limited companies—Financial, non-financial institutions and state-owned enterprises* [Working paper]. East West University. http://dspace.ewubd.edu:8080/handle/123456789/410

IMF. (2020, May 7). State-owned enterprises: The other government | Fiscal Monitor Chapter 3. https://www.imf.org/en/Videos/view?vid=6154957511001

Jebbari, A. (2024). Human resources practices as a mechanism for improving performance within public institutions and state-owned enterprises in Morocco. *Problems and Perspectives in Management, 22*(1), 40–56. https://doi.org/10.21511/ppm.22(1).2024.05

Johnson, L. N. (2024, June 30). Leroy N. Johnson: Crafting banking sector stability index for Sierra Leone. SciSpace - Paper. https://doi.org/10.61440/jbes.2024.v1.22

Johnson, O. E. G. (2016). *Economic diversification and growth in Africa: Critical policy making issues*. Springer.

Kaitibi et al. (2018). Impact of efficient credit management on profitability of commercial banks in Sierra Leone. https://doi.org/10.4236/ojbm.2018.61009

Kaplan. (2015). *ACCA paper F5 performance management—Kaplan Publishing UK*. www.bpp.com/learningmedia

Karikari, O. (2018). *State ownership and governance policy for state-owned enterprises*.

Lee, C. L., Ahmad, R., Lee, W. S., Khalid, N., & Karim, Z. A. (2022). The financial sustainability of state-owned enterprises in an emerging economy. *Economies, 10*(10), Article 10. https://doi.org/10.3390/economies10100233

Mahdi, I. (2018, May). *Informal finance in Sierra Leone: Working paper*.

Mansaray, S. S., Hongyi, X., & Sawaneh, I. A. (2024). Service innovation performance in Sierra Leone's banking sector: An empirical analysis. *Asian Journal of Education and Social Studies, 50*(5), 522–530. https://doi.org/10.9734/ajess/2024/v50i51382

Martin, X., & Li, C. (2015). What do we know about state-owned emerging-economy firms, and how? Evaluating literature about inward and outward multinational activities. In L. Tihanyi, E. R. Banalieva, T. M. Devinney, & T. Pedersen (Eds.), *Advances in international management* (Vol. 28, pp. 403–439). Emerald Group Publishing Limited. https://doi.org/10.1108/S1571-502720150000028018

Maslani, Hartoyo, Syarief, R., & Harianto. (2024). Strengthening the competitiveness of state-owned enterprises. *Journal of Open Innovation: Technology, Market, and Complexity, 10*(1). https://doi.org/10.1016/j.joitmc.2023.100199

Medas, P. A. (2020). State-owned enterprises: The other government—Presentation at the Peterson Institute for International Economics | State-owned enterprises (SOE). https://state-owned-enterprises.worldbank.org/report/state-owned-enterprises-other-government-presentation-peterson-institute-international

Ministry of Finance Sierra Leone. (2023, May 4). Home. https://mof.gov.sl/

Mirach, H. (2010). *Credit management: A case study of Wegagen Bank Share Company in Tigray Region*. College of Business & Economics, Mekelle University, Mekelle. - Google Search.

N'jai, L. (2000). *An assessment of the impact of credit management on the commercial viability of the telecommunications industry* [Unpublished dissertation, IPAM-USL, Sierra Leone]. - Google Search.

Paulo et al. (2020, May 12). State-owned enterprises: The other government—Presentation at the Peterson Institute for International Economics | State-owned enterprises (SOE). https://state-owned-enterprises.worldbank.org/report/state-owned-enterprises-other-government-presentation-peterson-institute-international

Rogers, J. D. (2006). Financial services and business lending: Products and services currently available to business. - Google Search. https://www.financialservicesandbusinesslending.com/

Safi, A., Chen, Y., Qayyum, A., Wahab, S., & Amin, M. (2023). How does corporate social and environmental responsibility contribute to investment efficiency and performance? Evidence from the financial sector of China. *Economic Research-Ekonomska Istrazivanja, 36*(2). https://doi.org/10.1080/1331677X.2022.2142816

Samuel et al. (2024). Service innovation performance in Sierra Leone's banking sector: An empirical analysis. *Asian Journal of Education and Social Studies*. https://doi.org/10.9734/ajess/2024/v50i51382

Samuels, H., & Duramany-Lakkoh, E. K. (2023). A scholarly consideration on the theories and literature of tax reforms in Sierra Leone. *European Journal of Economic and Financial Research, 7*(3). https://doi.org/10.46827/ejefr.v7i3.1531

Sannoh, A. (2009). *The effectiveness and efficiency of credit creation adopted by commercial banks in Sierra Leone* [Unpublished dissertation, IPAM-USL, Sierra Leone]. - Google Search.

Scott, D. H. (2010, July 1). Strengthening the governance and performance of state-owned financial institutions. World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/345691468165898545/strengthening-the-governance-and-performance-of-state-owned-financial-institutions

Seth, R., & Kalyanaraman, V. (2017). Effect of financial development on the transmission of monetary policy. *Theoretical Economics Letters, 7*(4), 795–813. https://doi.org/10.4236/tel.2017.74058

The World Bank Group. (2020). Chapter 1 | State-owned enterprise challenges and World Bank Group reforms. https://ieg.worldbankgroup.org/evaluations/state-your-business/chapter-1-state-owned-enterprise-challenges-and-world-bank-group

Toporowski, J., Krishnan, S., Paschoa, J. P., & Weeks, J. (2009). *Remittances strategy framework for sustainable development in Sierra Leone*. - Google Search.

Voveris, D., Jaržemskis, A., & Girdvainienė, I. (2024). The paradox of independent board members and financial return of state-owned enterprises: Case of Lithuania. *Problems and Perspectives in Management, 22*(1), 205–217. https://doi.org/10.21511/ppm.22(1).2024.18

Were et al. (2023). Sierra Leone economic update 2023: Enhancing value chains to boost food security. World Bank. https://openknowledge.worldbank.org/handle/10986/40586

World Bank. (2023). New report reveals large presence of state-owned businesses in competitive sectors in developing countries. https://www.worldbank.org/en/news/press-release/2023/11/28/new-report-reveals-large-presence-of-state-owned-businesses-in-competitive-sectors-in-developing-countries

Yang, W. E., Lai, P. W., Han, Z. Q., & Tang, Z. P. (2023). Do government policies drive institutional preferences on green investment? Evidence from China. *Environmental Science and Pollution Research, 30*(3), 8297–8316. https://doi.org/10.1007/s11356-022-22688-4

Yu, C. H., Wu, X., Zhang, D., Chen, S., & Zhao, J. (2021). Demand for green finance: Resolving financing constraints on green innovation in China. *Energy Policy, 153.* https://doi.org/10.1016/j.enpol.2021.112255

Yun, K. H., Li, J., & Hu, C. (2024). State dominance over the market: Reexamining the survival of China's state-owned enterprises. *Asia Pacific Journal of Management, 41*(1), 437–474. https://doi.org/10.1007/s10490-022-09858-1

ANNEXES

Annexe 1: Roles and responsibilities of Government institutions in the oversight of SOEs

Roles and responsibilities	Institution
POLICY	
▪ Policy for SOEs developed by national ▪ Nominate candidates for Board appointments by the President ▪ Presentation of Policies to Cabinet ▪ Liaise with the oversight entity on policy implementation ▪ Presentation of contracts to Parliament for ratification	Ministers MoF/Corporate Affairs Commission
OVERSIGHT, GOVERNANCE AND DIVESTITURE	
▪ Shareholders for SOEs ▪ Nomination of potential candidates for appointment by the Board ▪ Set and monitor SOE objectives ▪ Develop key performance indicators	Oversight entity MoF/Corporate Affairs Commission
▪ Supervision of Non-financial, SOE's and financial sector ▪ Timely dissemination of information to SOEs ▪ Annual SOEs reports are publish timely ▪ Regulation and legislation are supervised regularly to ensure policy compliance. ▪ Corporate governance code of conduct is also supervised to ensure compliance ▪ Implementation and contract evaluation	MoF/Corporate Affairs Commission
▪ Risk management of Fiduciary for oversight ▪ Rationalization of budget for State Owned Enterprises ▪ Debt for State Owned Enterprises are approved ▪ SOEs are given direct oversight right ▪ Provide feedback to State Owned Enterprises as and when needed ▪ Fiscal report on risk are prepared annual	Ministry of Finance
REGULATION	
▪ Environmental policies and regulation are enforcement ▪ License on environmental protection agency	Environmental Protection Agency
▪ ACC ensure that they maintain accountability and transparency thereby protecting the integrity of State-Owned Enterprises	Anti-Corruption Commission
▪ Ministry of Finance reports on all financial related activities for corporate compliance	MoF/Corporate Affairs Commission
▪ The office of Ombudsman is responsible for all maladministration and other regulation biding SOEs	OMBUDSMAN
▪ Corporate affairs restarted State Owned Enterprises and other related companies	MoF/Corporate Affairs Commission
▪ The AG agreed on legal matter and has the final vetting power ▪ The Minister of Justice and AG are constitutionally the legal advisory body on all state-owned matters.	Office of The Attorney General and Minister of Justice
▪ Formulation and enactment of SOEs laws ▪ The replead and replaced laws of State-Owned Enterprises	Parliament of Sierra Leone
▪ NPPA provided regulation for all public procurement for SOEs in the country	National Public Procurement Authority (NPPA)

Published by

IJSAB International