

# A Multiple Linear Regression Approach to Understanding the Role of Financial Institutions in Economic Development

Ezekiel K. Duramany-Lakkoh\*, Richard Ngebeh, Albert Beah

Faculty of Accounting and Finance, Institute of Public Administration and Management (IPAM), University of Sierra Leone, Sierra Leone

Email: \*ezeziel.duramany-lakkoh@fulbrightmail.org

**How to cite this paper:** Duramany-Lakkoh, E. K., Ngebeh, R., & Beah, A. (2026). A Multiple Linear Regression Approach to Understanding the Role of Financial Institutions in Economic Development. *Theoretical Economics Letters*, 16, 592-613. <https://doi.org/10.4236/tel.2026.163034>

**Received:** February 13, 2026

**Accepted:** June 26, 2026

**Published:** June 29, 2026

Copyright © 2026 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

The main purpose of this paper is to understand the role of financial institutions in economic development. Both the primary and secondary sources of data were used in the course of this study. The study also makes use of the qualitative data in the form of literature and for data analysis in various stages in the study. The secondary data collected were analysed using EViews version 8. The findings from the study revealed that Domestic Credit to Private Sector (DCPS) has a negative relationship on the Gross Domestic Product (GDP) with a coefficient value of  $(-0.364423)$ . The data further revealed that this relationship is highly insignificant (p-value of 0.4454 and t-stats of  $-0.766265$ ). The study also shows that there is also a non-significant relationship between DCPS and GDP ( $r = -0.032771$  and p-value = 0.9006). The findings from the study revealed that Deposit Interest Rates (DIR) have a positive coefficient value of  $(1.771626)$ , which is also highly significant (p-value of 0.0040 and t-stats of  $2.951361$ ) on the Gross Domestic Product (GDP). The study also revealed that there is a significant relationship between DIR and GDP ( $r = 0.368847$  and p-value = 0.1451).

## Keywords

Financial Institutions, Economic Development, Financial System, Sierra Leone

## 1. Introduction

Financial institutions are the backbones of every developing economy around the world as firms and governments make great use of financial institutions to finance either current or investment expenditures. Scholars have argued that financial in-

stitutions are of utmost concern because the smooth operation of these institutions is essential for the running of all other institutions in the economy (Yosha, 1992). Financial institutions serve as a vital part of the financial system of every given country and when they cease to function properly, resources are no longer channelled to their best possible use and in the long run, the economy suffers financial crisis (Mensah, 2012). These have clearly established that financial institutions are of utmost importance to economic growth. However, there are conflicting views and an overall lack of adequate literature regarding the financial contributions that financial institutions make towards economic growth in Sierra Leone. This paper will provide more insight on the role and impacts of financial institutions in Sierra Leone and examines major issues and policy problems faced within financial sector and its institutions.

### 1.1. Background of the Study

Financial institutions are set up entities that deals with financial activities. They help the government to stabilize the economy of every nation through fiscal and monetary policies; they help businesses and people to finance their monetary obligations, they act as securities for safe keeping through depositing of money, investing and managing it, and they also act as advisers to manage and mitigate risks by investigating the nature characteristics of certain business ventures.

Financial institutions are one of the most important components of any country's financial system.

The importance of financial institutions in promoting growth within the economy has been widely discussed in the literature (Sunday & David, 2011). They play a vital role in determining the effectiveness and efficiency of the financial system, and represent the system through which money flows from savings to investors in various economic fields (Ghazi, 2019). The financial system plays a key role in the mobilization and allocation of savings, provision of structures for monetary management, and serves as the basis for managing liquidity in the system." (Sunday & David, 2011).

There are basically nine major types of Financial Institutions in Sierra Leone, these are the Central Bank, Retail and Commercial Banks, Internet Banks, Credit Unions, Savings and Loan (S&L) Associations, Investment Banks, Brokerage Firms, Insurance Companies, and Mortgage Companies. In the history of financial institutions in Sierra Leone, banks comprise of the most contributing factors to economic development (Duramany-Lakkoh, 2021a).

Financial Institutions help enhance growth by allocating resources from areas ready to invest in short and long-term projects, they facilitate the pooling and hedging of risk inherent in individual projects and industries, and also reduce securities holders' liquidity risk by allowing them to sell their securities without affecting firms' access to the funds initially invested (David, 2006). Thus, well-developed Financial Institutions can generate growth by increasing the pool of funds and by reducing the risk and enhancing the productivity of fund transfers

from savers to investment projects (Khan, 2015). Some economists have focused on events that have led to large changes in the size and development of the financial sector in a short period of time to isolate the impact of financial development on growth within a country over time. These studies are usually called event studies (Kemal et al., 2007).

According to Duramany-Lakkoh et al. (2022), the growth of the banking industry is seen as a key factor in a nation's economic expansion. Despite having abundant natural resources including diamonds, bauxite, and gold, Sierra Leone's real GDP has been steadily declining from the beginning of the 1980s to the beginning of the 2000s, which has caused the country's economy to be depressed. The guerrilla conflict severely harmed the financial system of the country, particularly the urban-based industries, and the financial industry in Sierra Leone was no exception. The primary function of the financial system was intermediation, which was primarily limited to urban elites. Investment and trade received only a limited amount of support from the financial system in the form of essential services like foreign currency and letters of credit. On the other hand, following the end of the war in Sierra Leone, the amount of formal savings has dramatically expanded as a result of competitions in the banking sector to mobilize savings, establish bank branches, and strengthen financial literacy programs in the country's sector.

The Ebola virus in Sierra Leone in 2014 and 2015 caused shock to the economy, which slowed down key economic activity and led to a sharp decline in the prices of international goods, especially agricultural items (Duramany-Lakkoh, 2021b).

## 1.2. Problem Statement

The long-term sustainability of a nation's economic development and growth is strongly influenced by how its productive resources are being used in the most efficient way possible (Sunday & David, 2011).

Financial institutions act as a crucial conduit through which these productive resources are transferred from those with surplus finances to those in need of capital to launch investment projects. The value of financial institutions in fostering growth and development has been recognized in Sierra Leone. This has been demonstrated by the central bank of Sierra Leone's efforts to support the financial industry and the creation of additional channels for the transfer of financial resources, such as mobile banking, the inclusion of agents in the financial sectors, and the financial inclusion initiative.

In the literature on development and growth, there has been much discussion about the connection between financial institutions and economic growth (Amis-sah, 2018). It has also been widely discussed that commercial banks play a crucial role in a nation's economic growth and development, particularly for emerging nations, by acting as an intermediary and directing a nation's financial resources from its surplus units to its deficit units. However, these same commercial banks are typically exposed to substantial credit risk as they carry out their intermediation activities with the goal of aiding in a nation's economic progress. Because the

resources given are typically used for investment purposes by both the government and the private sector, credit creation by banks serves as one of the important factors in increasing growth and development in a certain country. The size of fixed costs decreases as the economy grows and more individuals get involved. As a result, economic expansion allows for the promotion of financial intermediaries, and these intermediaries themselves promote economic expansion by increasing capital allocation.

As there have been diverse challenges with the economic stability of Sierra Leone from the 1980s to the present day, the economy has been stagnating with an “average inflation rate of 31.2% per year from 1980 to 2021 and with an overall price increase of 2,027,085.00% - an item that cost SSL. 100 in 1980 is now cost SSL. 2,027,185.00 leones at the beginning of 2022.” (Worddata, 2022).

In the past twelve years 2010 to 2022, there has been emerging financial institutions in the economic sector of Sierra Leone than any other era, and not neglecting the fact that many non-financial institutions in the economy have failed in economic development with a current average GDP of 2.492291 billion dollars per capita from 1980 to 2021 which GDP value represents less than 0.01 percent of the world economy making it less significant. Therefore, all the above situations have necessitated this study to investigate a comparative financial performance analysis study on financial institutions from 2016 to 2021 for measuring the contributions financial institutions have made and also to ascertain reason for their low or high contributions.

### 1.3. Objective of the Study

The overall objective of this study is to examine the effect of financial institutions on economic growth of Sierra Leone from 2001 to 2017.

The study also examines the following specific objectives;

- i. To evaluate the effects of domestic credit to private sector by banks on the economic development of the Sierra Leone economy.
- ii. To assess the impact of deposit interest rates on the economic development of the Sierra Leone economy.
- iii. To determine the impact of bank liquid reserves to bank assets ratio on the economic development of the Sierra Leone economy.
- iv. To ascertain the importance of interest rates spread by banks on the economic development of the Sierra Leone economy.

### 1.4. Research Questions

- i. What effects does domestic credit to private sector by banks have on the economic development of the Sierra Leone economy?
- ii. Do deposit interest rates have any impact on the economic development of the Sierra Leone economy?
- iii. What impact do bank liquid reserves to bank assets ratio have on the economic development of the Sierra Leone economy?

iv. Is there any importance of interest rates spread by banks on the economic development of the Sierra Leone economy?

## **2. Literature Review**

### **2.1. Theoretical Literature Review**

These sections review various theories on the subject of financial institutions and economic growth, as well as help in giving an extensive knowledge on the role of banks in the economic development of a nation. The study reviews theories such as; Financial Intermediation Theory, Modern Economic Theory, Measure of Financial Deepening, Measure of Economic Growth, and the Imperfect Information Hypothesis Theory.

#### **2.1.1. Financial Intermediation Theory**

Financial intermediation is the process through which banks bridges the gap between the surplus units and that of the deficit units through; pooling of assets, risk transformation and maturity transformation. The financial system consists of sub set of financial institutions, financial markets, financial instruments and financial services. The financial institutions involve those institutions whose major function is to perform the intermediation process, that is, to channeling of resources from units (surplus) to another unit (deficit) in the economy for investment purposes. Financial markets on the other refers to the market where investors and buy and sell securities and as well as get access to finance for investment purposes.

The financial system consists of those people who are in need of funds for investment purpose commonly referred to as the deficit units and people who are having excess funds also known as the surplus units. [Bondie et al. \(2009\)](#) and [Caporale et al. \(2009\)](#) in their studies classified the activities of financial intermediaries into four broad categories; the first classes are those financial institutions whose liabilities are fixed in nature and does not related to the portfolio performance, secondly, those institutions which liabilities are short term in nature than their assets, thirdly, those institutions whose proportion of their liabilities are in the form of cheque and be withdrawn on demand, and finally, those financial institutions whose assets and liabilities cannot be transferable. Financial intermediaries play significant roles in the intermediation process.

The financial intermediation theories seek to addresses the issues with transaction cost and asymmetric information in the market which intermediaries intends to resolve through the transformation mechanism. An increase in technological development, financial market deepening and deregulations of financial institutions will help to reduce transaction costs, while symmetric information in the financial market on the other hand will make the demand for intermediation mere useless and unusual, as borrowers and lender can easily locate themselves to transact business dealings. Evidence from this statement shows that the financial intermediation theory cannot fully explain the existence of financial institutions in the intermediation process.

Greenwood and Jovanovich (1990) posts that the services provided by financial intermediaries are classified as specialist products and services. Financial intermediaries exist as a result of market imperfections. Thus, the role of financial intermediaries will be needless or of no use due to a perfect market or adequate information in the market. Perfect market is the process through which both the surplus units and the deficits have adequate information's in the market. With perfect market savers and borrowers can easily access themselves without incurring more cost, than in the imperfect market. In order to better understand the modern finance theory three pillars were formulated such as; Optimality which refers to the ability of investors of getting optimal returns on an investment venture, secondly, arbitrage which refers to the ability of commodity and asset prices to be the same in every aspect without price restrictions in the market, and finally, equilibrium which basically refers to the adjustment of prices in the market due to the forces in demand and supply. According to the neo-classical theory of market perfection the prices of the commodity can be determined by an individual party, lending condition in the market are all equal to all parties involved and finally there exists no barriers in the entering of the market.

During the late 1950s Robinson (1952) conducted study on the structure of the financial system and the economic development of a nation. Result from his study revealed that an increase in the economic growth and development of a nation would makes the financial system to be more liquid and richer in wealth and resources to help perform the intermediation role more effectively and efficiently. The size and nature of the financial system in a particular country greatly depends on the forces of its surplus units and that of the deficit units. Financial intermediaries have a significant impact on the economic development of a country especially developing nation's through the channeling of funds from the surplus units to deficit units for investment purpose. Levine (1997) asserted that a well-structured and developed financial system can help enhance growth and development in the economy through the efficient allocation of financial resources and the optimal utilization of resources as well. Financial intermediation on the other hand can affect economic development and growth in a country through an increase in the saving rate by the surplus units, and as well as the fraction of funds channeled to the deficits units for investment and other lucrative purposes (Levine et al., 2000).

### 2.1.2. Modern Economic Theory

The modern economic theory was first propounded by Solow (1956) and later on by Swan (1956). The modern economic theory can also be traced back to Adam Smith in his work an Inquiry into the nature and causes of Wealth of Nation. Economic theory can be defined as tools and models used by economists in order to conduct research and study the economy to gain more insight about the phenomena that normally occur frequently in the country and globally. Modern economic theory has helped in discovering the phenomena surrounding the communities and the societies at large such as unemployment, inflation, national income,

balance of payment, social and cultural norms and values etc. According to [Ke-nourgios and Samitas \(2007\)](#), he noted economic theory is being affected by two key factors. Firstly, the individual behavior and decision like habit formation, practice and learning can influence emergent economic issues and as well past and future demand and expectations. Secondly, another factors that affect economic theory is the slow emergent variables such as one's attitude, culture and institutions that are poorly recognized and incorporated. [Patrick \(1996\)](#) posts that most economists believed that and increase in financial returns in the financial system can easily foster growth and development and as well as develop an efficient structure in the system can absorb financial shock during crisis. However, it is believed that most economists are finding it extremely difficult to comprehend the effect between an increase in emergent economic activities and that of a decrease in emergent economic activities.

According to [Pradesh \(2006\)](#), he noted that economic theories help economists with various set of tools/model which they normally used to help solved rising phenomena that occur on our daily course of living and as well as proffer solution. He further argued that economists globally do not have any enmity amongst themselves on the purpose and nature of modern economic theories. This therefore raises the question whether economic theory should predict the future outcome of nature or should it lay assumption on it? There has been an increase in the volume of economic theories with each period addressing different emerging economics issues and problems. However, economic theory does not belong to any specific race, age, period, individual or country. Thus, the ultimate goal of modern economic theories is to predict present and future economic outcome, and it prevailing effects on the economic performance of the nation at large. For instance, a perfect theory invented must be able to predict the occurrence of a specific event and to solve a specific economic issues and problems. For example, if the objective of the producer is to maximize profit, during given a specific demand and supply functions and its prices, this objective of the producers can be easily change from profit maximization to lower profit, through the implementation of the ad valorem tax, thus an increase in ad valorem tax will increase production cost and the result will be a severe reduction in the production of a particular commodity, this in turn can lower the profit maximization objectives of the producers through the intervention of the government in the economy. It is obviously that economic theories cannot always be accurate and realistic in nature. Therefore, it the goal of economic theory to formulate hypothesis which will serves as an essential element in addressing major economic issues that may arise. It is also argued that modern economic theory should formulate and ask questions in order to solve economic phenomena.

### **2.1.3. Measure of Economic Growth**

Economic growth is defined as an increase in the production level and as well as corresponding increase in the gross domestic product of a particular country. The performance of a particular country is normally being determined through the

national income accounting calculation. The economic performance of a country is of a great concern to economist globally, because economic policy is dependent on the performance of the country in terms of growth and development. Assessing the economic growth of a country involved quantifying the average welfare of the economy and that of the social economic changes. Economic growth further refers to an increase in the economic welfare of the nation and that of the corresponding changes in the structure of the economy in terms of; average income per head, consumption, the level of financial and non-financial literacy, demography and as well as the health structure of the nation. Thus, in the long run, with the transformation of the aforementioned sectors, so also the cultural, social and political norms change. An increase in the level of economic performance will lead to an increase in multidimensional activities within the economy.

There are various methods used in the calculation and measuring of economic growth by economist globally including; level and size of national income, gross domestic products of the nations and as well as the physical allocation of capital etc. Gross domestic product is used to measures the production of all goods and service that fall within the geographical boundaries. The gross domestic product estimates are difficult and as well as subject to uncertainties, and thus, it is difficult in measuring it especially government economists (Aghion et al., 2005). From the highlighted problems, there arises the question as of all the economic data collected from the national accounts systems, the gross domestic product is the most suitable one used in measuring the overall economic wellbeing of the nation. This type of measurement method takes accounts of the household consumption and that of the level of national income, and as well assesses if there are any discrepancies with other countries, when conducting the cross-country comparison on based on gross domestic product. The gross added value per head as being highlighted as another method of measuring economic growth and sound economic performance of a particular countries. Even though this method has some amount of criticism, it gives a broader view of the overall performance of the country in terms of employment and production capacity.

#### **2.1.4. Measure of Financial Deepening**

Financial deepening refers to an aggregate increase in the supply of assets in the economy, specifically financial assets. Rise in the supply of financial assets in the economy will help to enhance growth and development, therefore, it is of a great importance to measures the financial assets in the economy in a wider range and scope including the volume of money, which can be determine by the quantity of supplied by the regulatory authority to ensure stability, maintaining inflation rates, and as well as ensuring stability in prices and output. In measuring the financial assets including supply of money in the economy, it first involved the process of identifying, assessing and evaluating the available financial assets and as well as calculating them altogether for better understanding of how the various financial assets has help in deepening the economy. Greenwood and Jovanovich (1990) posits that the adding up of all the financial assets including money falls

under one category commonly referred to as financial deepening and this thus include the growth of the per capita income in the country. The various classes of financial assets that are included in this study includes; the liabilities of non-banking financial assets, government securities which include treasury bills and bond, broad money supply, the values of share in the market and as well as the money market and the capital market funds. [Schumpeter \(1911\)](#) in his study of growth, treated the growth output rates as a dependent monetary variable which includes the growth rate of money and the level of financial intermediation in the system. Thus, summing up these financial assets serves as a wider range in measuring financial deepening in the entire economy.

#### **2.1.5. The Imperfect Information Hypothesis Theory**

According to the study conducted by [Wood \(1993\)](#), they build up a hypothesis in order to test the existence of the informal financial markets and the type of financial services and assets that operate in that environment where the contract of imperfection exists in the imperfect market. They further argued that an imperfection in the market, would lead to different types of prices and cost of commodity in the market, thus, this would lead to specialization of the various type of financial transactions in the system, which will allow one sector to be specialist in a specific type of financial assets. This will lead to the existence of the formal and informal sector operating together in the financial system. The hypothesis established by [Wood \(1993\)](#) further explained that enforcement of contracts and information of the imperfect market would lead the economy to face severe challenges in the area of adverse selection, moral hazard, asymmetric information and that of adverse incentives in the economy.

The informal financial market theory laid more emphasis on the role of imperfect information on the promotion of financial services outside the perfect formal financial market and the whole financial system. The study further revealed that the problem of moral hazard and adverse selection is in the presence of both the formal financial sector and as well as the informal financial sector. According to the study conducted by [Waqabaca \(2004\)](#), he gives an in-depth overview of the growth literature and the financial deepening theory. Thus, a theory to establish the fact that financial organizations as a result of the existence of asymmetric information in the market. Thus, both the formal and informal sectors in the market due to the different challenges faced in the market as a result of asymmetric information problems that exist in the whole financial system. [Wood \(1993\)](#) Posits that both the formal and informal sectors deal with asymmetric information challenges faced through the relationship that exists between the clients and that of the agents.

The hypothesis postulated by [Wood \(1993\)](#) is of great use to the modern financial system that exists in most Africa countries. The formal financial sectors face various challenges in regards to imperfect information and that of the enforcement of contract which includes asymmetric information and moral hazard because they are still undergoing the developing stages. For example, the absence of

adequate credit reference bureaus to help check the creditworthiness of clients also serves as a serious challenge for the formal financial institutions. In order to hedge the against such, formal financial institutions normally charge higher rate of interest on clients in which they lack adequate information of and as well as those that lack collateral securities in order to get access to credit facilities for investment purpose. This has also caused both the small and medium business to shy away of the formal financial markets, because they lack the required collateral needed and also the low-income household solely depend on the informal financial sectors to get access to financial services and other credit facilities, even with the increasing rate of interest.

## **2.2. Determinants of Financial Development**

Financial development and economic growth are interchangeable used. Financial development refers to as a sustained increased in the allocation of capital and other investment ventures, the management of financial risk and as well the implementation of sound corporate governance principles in order to enhance growth and stability in the economy. At the same time, economic growth on the other hand, refers to the monetary value of all goods and services produced in a country. Economic growth serves as a key indicator of the economic development of a particular country or nation. Financial development of a nation can be affected by various set of factors and some of these factors are explained below;

### **2.2.1. Gross Domestic Product**

The gross domestic product can be easily defined as the monetary value of all goods and services produce within the geographical boundaries of a country. It is also referred as to as the market value of all the production of relative goods and services are made within the country. GDP serves as one of the key measures used by economists in assessing the level of economic development in the country and as well as the contribution of GDP to the financial sector development. Gross Domestic Product is used to measure the standard of living of the people of a particular country, thus, an increase in the per capita of income per head denote that the country is experiencing an increase in the gross domestic product which also leads to an increase in economic growth and vice versa. The use of GDP to determine the economic growth of a country has been widely criticized by many scholars and high professional economists and this has given rise to the implementation of an alternative method to measures the economic growth of a country due to high number of criticisms on the GDP as a measure to determine the standard of living of the people in the economy. The gross domestic product of a country can be measured using three key approaches, namely; the output method, the income method and that of the expenditure method *Demetriades and Hussein (1996)*. The results from the aforementioned approaches must be all the same. The production or output approach is one of the most commonly direct method that is used to measures the total values of all goods and services produced within the geographical boundary of the country. The income approach denotes that the to-

tal production of goods of a country must be equal to the total average income that is received by the citizens or household incomes (Demetriades & Hussein, 1996). Finally, the expenditure approach establish that the productive factors must be bought by the citizens, therefore, the value of the total production output must be of an equal amount to the total expenditures incurred by household or the citizens in a particular country.

### **2.2.2. Money Supply (M2)**

Money supply refers to the total volume of money that is in circulation with the public at a point in time. M2 serves as a vital force in increasing financial development in a country. The term “money” has been defined in various ways, this study defined money as anything that is generally acceptable as a medium of exchange, which includes cash, securities, convertible instruments and cheques deposits. The central bank is the only supreme institution that has the power and mandate to print issues and keep data of the total volume of money that has been supplied in the economy or currency in circulation. Due to the effect that the supply of money has in the economy, various economists, researchers and scholars have studied the behavior of the supply of money in influencing other variables such as inflation, exchange rates, balance of payment and the cyclical business fluctuation. M2 is a broader aspect of money than M1 and also represent close substitutes of money. Money supply (M2) has been used most researchers, economist and scholars when calculating the total volume of money in circulation and its resultant effect on the economy at large. It is also a key indicator variable that monetary authority used to explain the economic condition of the nations and as well as for the purpose of predicting future economic outcomes of the country in terms of inflation (King & Levin, 1993).

The level of economic activities and the volume of savings is greatly depending on the volume of money supply in the economy. For instance, if the central bank realizes that there is high rate of inflation in the economy which is due to the increase in the volume of money in the economy, will increase the interest rate which in turn will reduce the supply of money in the economy, by so doing, the level of economic activities will fall as a result of an increment in the interest rates and the reduction in the supply of money. Thus, the problem of inflation can be easily control. However, the level of saving greatly dependent on the money supply, an increase in the supply of M2 it will encourages more savings as there is idler cash lying down. There are various forms of undertaken in the financial system which include depositing idle cash with commercial banks and other depositary institutions for the purpose of safe keeping and also savings might also be in the form of pension and provident funds. It is obviously that savings involves reduction of potential expenditures and the reduction of risk; as a result, money is deposited in the bank and also invested in other forms of securities for the purpose of safe keeping and the generation of additional income. Lucas (1988) noted that savings serves as an important force that drive growth and enhance financial stability in the economy. With savings, it will allow the intermediation role/functions

to be more effective and efficient. Financial intermediaries greatly dependent on the saving made by the surplus unit in the economy for them to undertake their intermediation roles.

### 2.2.3. Advances to Deposit Ratio

Advances refer to the amount of money given by financial institutions or banks for investment purposes or to meet day to day activities. These advances are normally granted to individual household, corporate, private and public sector for investment purpose or to meet day to day affairs. Deposits on the other hand refers to the amount of money or idle received from the various surplus units in the economy by banks and other financial institutions either for safe keeping or for investment purpose. The main role of financial intermediaries is to bridge the gap between the surplus units and that of the deficit units, through the process of collecting excess cash from the savers and giving out as loans to those who are in need of money for investment purpose. An increase in the level of economic activities in the country will increase the volume of savings due to change in the level of the size of income in terms of increment. Thus, this increment will also enable the banks receive an increase in the number of deposits. Sutton and Jenkins (2007) posit that an increase in the level of savings from the public, will enable the bank to give more loans and advances and thus adding to the volume of money in circulation. This in turn will have positive impacts towards the economic development of a particular country.

### 2.3. Empirical Literature Review

King and Levin (1993) conducted study of eight countries on the relationship between economic growth and financial development of both under developed and developed countries. The result from their study revealed that, finance does not only enhance growth and development, but also serves as an important element in achieving economic growth and development in both developed and developing countries.

Aghion et al. (2005) conducted a study on financial development and growth. The result from their study revealed that financial engagement helps to hedge against liquidity risk and also helps management in maintaining highly liquid assets with them in order to meet the demand for the savers and the borrowers. Bencivenga and Smith (1991) in their study also indicate that banks as financial intermediaries, bridge the gap between the surplus units and the deficit units through the maturity transformation. The result from their study shows that this can be effective with a highly liquid asset.

Lucas (1988) analyzed the influence of the stock market dimension on economic development by regression tree techniques: he found that the positive influence of stock market development on economic growth held only for developed stock markets in terms of turnover, in the case of the underdeveloped stock markets the influence is in terms of turnover, in the case of underdeveloped stock markets the influence is negative.

Levine et al. (2000) studying the influence of stock markets and bank system development on economic growth on a sample of 11 Arab countries concluded that financial development could negatively influence the economic growth in countries with undeveloped financial systems; they stressed the role of building a sound financial system.

### **3. Methodology**

#### **3.1. Introduction**

This chapter indicates the research design, sources of data, population of the study, sampling and sample techniques of the study, the data collection instruments, data analysis and method of data presentation.

#### **3.2. Sources of Data**

Both the primary and secondary sources of data were used in this study. The study also makes use of the qualitative data in the form of literature in the study. For the purpose of this study the secondary data were collected through articles, journal, legal reports, newspapers, the internet, magazines, published books and as well as the Central Bank of Sierra Leone in order to help solved the raised research problem in the study, while primary data was obtained through personal interviews and focal group discussions with academics and financial intermediation practitioners.

#### **3.3. Population and Sampling**

According to Easton and McColl (1997), population is a combination of people, animals, plants or things from which data can be collected. It indicates the analysis of entire units or total elements collection on which the study was conducted (Cooper & Schindler, 2003).

The target population for this study was the 14 Commercial Banks licensed and supervised by the Central Bank of Sierra Leone as at 31<sup>st</sup> December, 2018. Attention is paid to Bank of Sierra Leone particularly for the purpose of accessing all quantitative data the ultimate goal of achieving the research aim. The following are the 14 Commercial Banks as at 31<sup>st</sup> December, 2018; Sierra Leone Commercial Bank Limited, Rokel Commercial Bank (SL) Limited, Standard Chartered Bank (SL) Limited, Union Trust Bank (SL) Limited, Guarantee Trust Bank (SL) Limited, First International Bank (SL) Limited, FBN Bank (SL) Limited, Ecobank (SL) Limited, Access Bank (SL) Limited, United Bank For Africa (SL) Limited, Skye Bank (SL) Limited, Zenith Bank (SL) Limited, Keystone Bank (SL) Limited, Commerce And Mortgage Bank (SL) Limited.

#### **3.4. Interviews**

Interview involves one on one discussion held with respondents. The study conducted personal interview with the various respondents in addition to the ques-

tionnaire that were administered to the various respondents. Personal interviews strengthen the reliability and understandability results from the data set. The structure interview is the formal interview conducted and they have pre-determined questions asked to the respondents, while the structure interview was held with the Risk Manager, Credit Manager, Treasury Manager, the Operation Manager, the Marketing Manager and as well as the Forex Analyst in order for them to give their view and understanding in relation to the subject matter.

### Questionnaire

Both the open-ended and close-ended questionnaire were structured, tested and administrated to the various respondents in order for them to give their own view and understanding to the subject matter. The closed ended questionnaire administered has pre-determined questions to help the respondents to choose freely without waste of time. The open-ended questions in the questionnaire allow the respondents to insert their own view and knowledge to the questions raised.

### 3.5. Data Analysis

The secondary Data collected from the bank of Sierra Leone were coded and entered into the EViews version 8 for the purpose of policy formulation. Descriptive statistics was followed in coding, editing and processing numeric data. Techniques of descriptive statistics (percentage and frequency) were used in analyzing data.

However, qualitative data analysis approach was also followed in analysing qualitative data. It has been mentioned earlier that the concurrent triangulation strategy has been used in this study from data collection to interpretation phase. Therefore, data transformation process was followed to analyse the data. At first, data were organised into categories on the basis of themes, concepts or similar features and codes were created to quantify qualitative data in order to count their frequency. In addition, other approaches to qualitative data analysis such as narrative description and explanation have been presented. Some long extracts of data as well as verbatim quotations from the respondents' oral statements have also been presented.

The secondary data were further presented in the form of multiple regression model, correlation and as well as normality test was conducted.

Thus, the simple linear regression model for the study is as follows;

$$Y_i = \beta_0 + \beta_1 DCPS_{1i} + \beta_2 BLRBS_{2i} + \beta_3 DIR_{3i} + \beta_4 IRS_{4it} + \epsilon_i$$

where,

$Y_i$  = the dependent variable (Gross Domestic Product)

$\beta_0$  = is the constant

$DCPS$  = Domestic Credit to the Private Sector

$BLRBS$  = Bank Liquid Reserves to Bank Asset

$DIR$  = Domestic Interest Rates

$IRS$  = Interest Rates Spread

$\epsilon$  = Error Terms

## 4. Data Analysis, Presentation and Interpretation

### 4.1. Introduction

The findings of the study are guided by the objectives of the study. From the methodology discussed in the previous section, the secondary data for all the variables included in the study were collected for the period 2001 to 2017 for the 14 Commercial Banks in Sierra Leone, inclusive of data from World Development Bank Indicators. The Pooled OLS Regression Model, Correlation Matrix and Descriptive Statistics were used by the researcher in the study. Results of the various tests will be discussed in the conclusion part of the paper.

### 4.2. Descriptive Statistics

In order to check for normality of the data and to exhibit the basic features of the variables that were used in the study in terms of the mean scores, the standard deviation, the minimum, the maximum and as well as the number of observations the descriptive statistics was run using evIEWS 8 and the output is shown in **Table 1** below.

**Table 1.** Descriptive statistics.

|              | GDP       | DCPS     | BLRBS    | DIR       | IRS       |
|--------------|-----------|----------|----------|-----------|-----------|
| mean         | 3.031765  | 4.782353 | 14.40765 | 8.852353  | 12.71824  |
| median       | 2.920000  | 4.840000 | 13.38000 | 9.670000  | 12.79000  |
| maximum      | 21.03000  | 8.160000 | 22.95000 | 11.80000  | 16.50000  |
| minimum      | -22.31000 | 1.520000 | 9.070000 | 4.070000  | 10.330000 |
| Std. Dev     | 9.586877  | 1.959357 | 4.644637 | 2.531066  | 1.628954  |
| Skewness     | -0.603399 | 0.144399 | 0.501953 | -0.935268 | 0.392119  |
| Kurtosis     | 4.739640  | 2.202871 | 1.891921 | 2.509126  | 2.847355  |
| Jarque-Bera  | 3.175253  | 0.509163 | 1.583597 | 2.649067  | 0.452150  |
| Probability  | 0.204410  | 0.775241 | 0.453029 | 0.265927  | 216.2100  |
| Sum          | 51.54000  | 81.30000 | 244.93   | 150.4900  | 42.45585  |
| Sum Sq. Dev  | 1470.531  | 61.42531 | 345.1625 | 102.5007  | 216.21    |
| Observations | 17        | 17       | 17       | 17        | 17        |

Source: Researcher data (2022) using evIEWS.

From the table above, the Jarque-Bera statistics tests the null hypothesis of normality against the alternate of non-normality. The P-values for GDP, BLRBS, DCPS, DIR, and IRS are all greater than 5% indicating that the Jarque-Bera values are significant at all levels of significance and therefore accept the null hypothesis and conclude that all the variables are normally distributed. The skewness values for GDP and DIR indicates that the variables are having a negative skewness, while the skewness variables for BLRBS, DCPS, and IRS are having a positive skewness.

From the Domestic Credit to the Private Sector (DCPS) chart above, the banking sector has experienced an increase in the domestic credit to the private sector on a yearly basis showing the soundness of the banking sector until in 2010 when it started falling. The highest increase in domestic credit to the private sector was recorded in 2009 with 8.16% and then it fell to 7.77% and 7.62% from 2010 to 2011 respectively. An increase in domestic credit by banks will increase their profitability base if effective measures are used in combating non-performing loans which will in turn create positive impacts on the growth of the economy.

It could be seen that the Bank Liquid Reserves to Bank Assets (BLRBS) has been fluctuating in an increasing rate with it recording the highest figures in 2016 and 2017 with 22.95% and 22.44% respectively. An increased in the bank liquid reserves ratio by the regulatory body will reduces the ability of the banking sector to perform its intermediation roles effectively and hence reduces its profitability base. However, from the chart above the bank liquid reserves to bank assets has also been significantly decreases during the period 2006, 2007 and 2011 to 9.66% and 9.41% and 9.07%.

### Stylized Description of the Banking Sector Indicators

The Interest Rate Spread (IRS) charged by the banks has been fluctuating at an increasing rate, with it recording the highest figures in 2001, 2007 and 2015 with 16.5%, 14.21% and 14.24% respectively. Indicating that banks are able to generate more revenue and hence ensure their sustainability in the market (Figure 1).

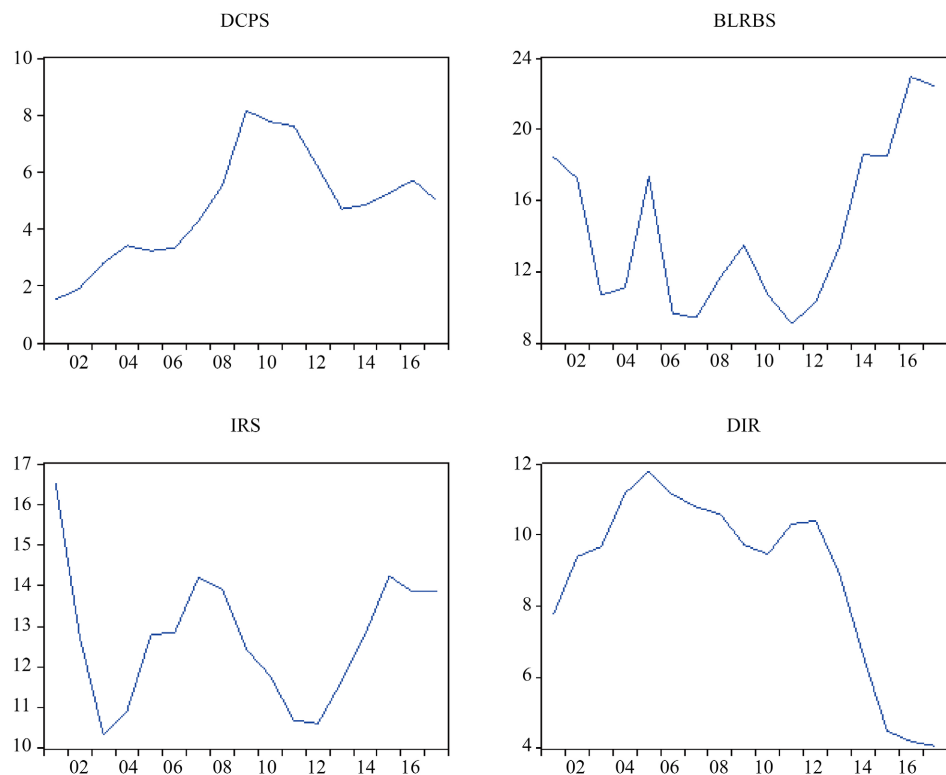


Figure 1. Banking indicators. Source: Researcher data (2022) using review.

### 4.3. Multiple Linear Regression Method

The Pooled Ordinary Least Square Regression model is used to demonstrate the functional relationship that exists between two or more independent variables and a dependent variable. It helps to compute the values of the coefficient of correlation interpreted as the fraction of the sample. As in the case of this study the Pooled OLS Regression Model will help to determine which one of the variables are important in explaining the impacts of Banks on the economic growth of the Sierra Leone economy. However, the Pooled OLS Model does not differentiate between banks. In other words, it is that type of model that assumes homogeneity of all the sections of data in a panel data study that is; it does not treat each section separately, but rather, treats all section as just a single section data. **Table 2** bellows the regression output.

**Table 2.** Regression output.

Dependnt Variabl: GDP

Method: Pooled Least Squares

Date: 11/23/22 Time 23:45

Sampl: 2001 2017

Include obesrvations: 17

Cross-sections included: 6

Total pool (balanced) observations: 102

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |
|--------------------|-------------|-----------------------|-------------|----------|
| C                  | 17.43246    | 13.24572              | 1.316082    | 0.1912   |
| DCPS               | -0.364423   | 0.475584              | -0.766265   | 0.4454   |
| BLRBS              | 0.887922    | 0.343846              | 2.582328    | 0.0114   |
| DIR                | 1.771626    | 0.600274              | 2.951361    | 0.0040   |
| IRS                | -3.234239   | 0.610730              | -5.295690   | 0.0000   |
| R-squared          | 0.337919    | Mean dependant var    |             | 3.031765 |
| Adjusted R-squared | 0.310617    | S.D dependant var     |             | 9.346566 |
| S.E of regression  | 7.760372    | Akaike info criterion |             | 6.983715 |
| Sum squared resid  | 5841.667    | Schwarz criterion     |             | 7.112390 |
| Log likelihood     | -351.1695   | Hannan-Quinn criter   |             | 7.035820 |
| F-stastic          | 12.37693    | Durbin-Wats on stat   |             | 2.039271 |
| Prob(F-statistic)  | 0.000000    |                       |             |          |

Source: Researcher data (2022) using Eview.

The econometric result using Pooled OLS shows that Bank Liquid Reserves to Assets (BLRBA) has a positive relationship on Gross Domestic Product (GDP) with a coefficient value of 0.887922. It was further revealed that the relationship is highly significant (p-value of 0.0113 and at t-stat of 2.582328). Domestic Credit to

Private Sector (DCPS) has a negative relationship on the Gross Domestic Product (GDP) with a coefficient value of  $(-0.364423)$ . It was further revealed that this relationship is highly insignificant (p-value of 0.4454 and t-stats of  $-0.766265$ ). The result also shows that Deposit Interest Rates (DIR) has a positive coefficient value of  $(1.771626)$ , which is also highly significant (p-value of 0.0040 and t-stats of 2.951361) on the Gross Domestic Product (GDP). On the other hand; Interest rate spread (IRS) has a negative relationship on the Gross Domestic Product (GDP) with a coefficient value of  $(-3.234239)$ . It was further revealed that relationship is highly significant (p-value of 0.0000 and t-stats of  $-5.295690$ ). With an R-squared of 0.337919, which means that about 34% of the predictive power in the dependent variable was jointly explained by the independent variables. This implies that dependent variable in Sierra Leone cannot be 100 percent explained by the variables used in this study. The unexplained part of the dependent variable can be attributed to exclusion of very important independent variables that can explain the dependent variable but are outside the scope of this study.

#### 4.4. Correlation Matrix

Correlation is used to test how strongly two or more variables are correlated. The test was carried out in order to test the relationship between the variables and the results of the test are presented in a table. The correlation matrix helps the researcher to determine which one of the variables is positive and as well as significant in explaining the impacts of banks on the economic growth of the Sierra Leone economy. The result from the correlation matrix is presented in **Table 3** below.

**Table 3.** Correlation output.

| Covariance Analysis: Ordinary |           |            |           |          |          |
|-------------------------------|-----------|------------|-----------|----------|----------|
| Date: 11/23/22 Time: 23:51    |           |            |           |          |          |
| Sample: 2001 to 2017          |           |            |           |          |          |
| Included observations: 17     |           |            |           |          |          |
| Correlation Probability       | GDP       | DCPS       | BLRBS     | DIR      | IRS      |
| GDP                           | 1.000000  |            |           |          |          |
|                               | -----     |            |           |          |          |
| DCPS                          | -0.032771 | 1.000000   |           |          |          |
|                               | 0.9006    | -----      |           |          |          |
| BLRBS                         | -0.246873 | -0.204202  | 1.000000  |          |          |
|                               | 0.3395    | 0.4318     | -----     |          |          |
| DIR                           | 0.368847  | -0.0866739 | -0.812331 | 1.000000 |          |
|                               | 0.1451    | 0.7406     | 0.0001    | -----    |          |
| IRS                           | 0.489779  | -0.309571  | 0.568302  | 0.444188 | 1.000000 |
|                               | 0.0460    | 0.2266     | 0.0173    | 0.0741   | -----    |

Source: Researcher data (2022) using eview.

The result in the table above shows that there is a non-significant relationship between BLRBA and GDP ( $r = -0.246873$  and  $p\text{-value} = 0.3395$ ), there is also a non-significant relationship between DCPS and GDP ( $r = -0.032771$  and  $p\text{-value} = 0.9006$ ). There is a significant relationship between DIR and GDP ( $r = 0.368847$  and  $p\text{-value} = 0.1451$ ), and finally, there is a non-significant relationship that exists between IRS and GDP ( $r = -0.489779$  and  $p\text{-value} = 0.0460$ ).

## 4.5. Findings of the Study

### 4.5.1. To Evaluate the Effects of Domestic Credit to Private Sector by Banks on the Economic Development of the Sierra Leone Economy

The first specific objective of the study was to evaluate the effects of domestic credit to private sector by banks on the economic development of the Sierra Leone economy. The findings from the study revealed that Domestic Credit to Private Sector (DCPS) has a negative relationship on the Gross Domestic Product (GDP) with a coefficient value of  $(-0.364423)$ . It was further revealed that this relationship is highly insignificant ( $p\text{-value}$  of  $0.4454$  and  $t\text{-stats}$  of  $-0.766265$ ). The study also revealed that there is also a non-significant relationship between DCPS and GDP ( $r = -0.032771$  and  $p\text{-value} = 0.9006$ ).

### 4.5.2. To Assess the Impact of Deposit Interest Rates on the Economic Development of the Sierra Leone Economy

The second specific objective of the study was to assess the impact of deposit interest rates on the economic development of the Sierra Leone economy. The findings from the study revealed that Deposit Interest Rates (DIR) has a positive coefficient value of  $(1.771626)$ , which is also highly significant ( $p\text{-value}$  of  $0.0040$  and  $t\text{-stats}$  of  $2.951361$ ) on the Gross Domestic Product (GDP). The study also revealed that there is a significant relationship between DIR and GDP ( $r = 0.368847$  and  $p\text{-value} = 0.1451$ ).

### 4.5.3. To Determine the Impact of Bank Liquid Reserves to Bank Assets Ratio on the Economic Development of the Sierra Leone Economy

The third specific objective of the study was to determine the impact of bank liquid reserves to bank assets ratio on the economic development of the Sierra Leone economy. The findings from the study revealed that Bank Liquid Reserves to Assets (BLRBA) has a positive relationship on Gross Domestic Product (GDP) with a coefficient value of  $0.887922$ . It was further revealed that the relationship is highly significant ( $p\text{-value}$  of  $0.0113$  and at  $t\text{-stat}$  of  $2.582328$ ). The findings from the study also revealed that there is a non-significant relationship between BLRBA and GDP ( $r = -0.246873$  and  $p\text{-value} = 0.3395$ ).

### 4.5.4. To Ascertain the Importance of Interest Rates Spread by Banks on the Economic Development of the Sierra Leone Economy

The third and final specific objective of the study was to ascertain the importance of interest rates spread by banks on the economic development of the Sierra Leone economy. The findings from the study revealed that the interest rate spread (IRS) has a negative relationship on the Gross Domestic Product (GDP) with a coeffi-

cient value of  $(-3.234239)$ . It was further revealed that relationship is highly significant (p-value of 0.0000 and t-stats of  $-5.295690$ ). The study findings finally revealed that there is a non-significant relationship that exists between IRS and GDP ( $r = -0.489779$  and p-value = 0.0460).

## 5. Conclusion and Recommendation of the Study

### 5.1. Summary of the Study

The findings from the study revealed that Domestic Credit to Private Sector (DCPS) has a negative relationship on the Gross Domestic Product (GDP) with a coefficient value of  $(-0.364423)$ . It was further revealed that this relationship is highly insignificant (p-value of 0.4454 and t-stats of  $-0.766265$ ). The study also revealed that there is also a non-significant relationship between DCPS and GDP ( $r = -0.032771$  and p-value = 0.9006).

The findings from the study revealed that Deposit Interest Rates (DIR) has a positive coefficient value of  $(1.771626)$ , which is also highly significant (p-value of 0.0040 and t-stats of 2.951361) on the Gross Domestic Product (GDP). The study also revealed that there is a significant relationship between DIR and GDP ( $r = 0.368847$  and p-value = 0.1451).

The findings from the study revealed that Bank Liquid Reserves to Assets (BLRBA) has a positive relationship on Gross Domestic Product (GDP) with a coefficient value of 0.887922. It was further revealed that the relationship is highly significant (p-value of 0.0113 and at t-stat of 2.582328). The findings from the study also revealed that there is a non-significant relationship between BLRBA and GDP ( $r = -0.246873$  and p-value = 0.3395).

The findings from the study revealed that Interest rate spread (IRS) has a negative relationship on the Gross Domestic Product (GDP) with a coefficient value of  $(-3.234239)$ . It was further revealed that relationship is highly significant (p-value of 0.0000 and t-stats of  $-5.295690$ ). The study findings finally revealed that there is a non-significant relationship that exists between IRS and GDP ( $r = -0.489779$  and p-value = 0.0460).

### 5.2. Conclusions of the Study

The study concluded that financial institutions have been successful in mobilizing domestic financial resources in order to enhance growth. Mobilization of financial resources help financial institutions to perform their role in the most cost-effective manner, as it helps to channel funds from the surplus unit to the deficit unit within the domestic economy.

The study also concluded that the financial resources mobilized by the various financial institutions within the domestic economy has been used for productive investment. The financial institutions have specific policy of lending credits to Small and Medium Enterprises to all kinds of sectors such as venting, food, service, agriculture, manufacturing, production, factories etc.

The study finally concluded that there is a long-lasting tradition in economics

with the issue of financial development and economic growth. The connection between the financial superstructure and its real infrastructure accelerates economic growth and improves economic performance to the extent that it facilitates the migration of funds to the best user. These events have fostered a fresh research interest in the role of financial Intermediation in economic development and a re-examination of the policy options for ensuring that the financial sector's contribution to economic growth and development is fully realized.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

## References

- Aghion, P., Howitt, P., & Mayer-Foulkes, D. (2005). The Effect of Financial Development on Convergence: Theory and Evidence. *Quarterly Journal of Economics*, 120, 173-222. <https://doi.org/10.1162/qjec.2005.120.1.173>
- Amissah, E. (2018). Capital Flows, Trade and the Role of the Financial System. *Modern Economy*, 9, 1592-1617. <https://doi.org/10.4236/me.2018.99099>
- Bencivenga, V. R., & Smith, B. D. (1991). Financial Intermediation and Endogenous Growth. *The Review of Economic Studies*, 58, 195-209. <https://doi.org/10.2307/2297964>
- Bondie, Z., Kane, A., & Marcus, J. A. (2009). *Investments* (8 ed.). McGraw Hill.
- Caporale, G. M., Rault, C., Sova, R., & Sova, A. (2009). Financial Development and Economic Growth: Evidence from Ten New EU Members. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1499786>
- Cooper, D. R., & Schindler, P. S. (2003). *Business Research Methods* (8th ed.). McGraw Hill.
- David (2006). *Fiscal Policy and Financial Development*. IMF Working Paper. <https://www.elibrary.imf.org/view/journals/001/2006/026/article-A000-en.pdf>
- Demetriades, P. O., & Hussein, K. A. (1996). Does Financial Development Cause Economic Growth? Time-Series Evidence from 16 Countries. *Journal of Development Economics*, 51, 387-411. [https://doi.org/10.1016/s0304-3878\(96\)00421-x](https://doi.org/10.1016/s0304-3878(96)00421-x)
- Duramany-Lakkoh, E. K. (2021a). Foreign Aid and Economics Development Nexus: The Case of Sierra Leone. *Archives of Business Research*, 9, 219-233.
- Duramany-Lakkoh, E. K. (2021b). Surveying the Socioeconomic and Business Dimensions of Microfinance Institutions in Rural Sierra Leone before the Ebola Outbreak: A Descriptive Statistical Approach. *Journal of Financial Risk Management*, 10, 172-186.
- 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, 258-276. <https://doi.org/10.4236/jfrm.2022.112013>
- Easton, V. J., & McColl, J. H. (1997). Confidence Intervals' in Statistics Glossary. <https://eprints.gla.ac.uk/120164/>
- Ghazi, R. (2019). Financial Institutions and Their Role in the Development and Financing of Small Individual Projects. *NeuroQuantology*, 20, 2333-2340.
- Greenwood, J., & Jovanovich, B. (1990). Financial Development, Growth, and the Distribution of Income. *Journal of Political Economy*, 98, 1076-1107. <https://doi.org/10.1086/261720>
- Kemal, A., Qayyum, A., & Hanif, M. N. (2007). Financial Development and Economic

- Growth: Evidence from a Heterogeneous Panel of High Income Countries. *The Lahore Journal of Economics*, 12, 1-34.
- Kenourgios, D., & Samitas, A. (2007). Financial Development and Economic Growth in a Transition Economy: Evidence for Poland. *Journal of Financial Decision Making*, 3, 35-48.
- Khan, E. A. (2015). The Role of Financial Institutions and the Economic Growth. *European Journal of Business and Management*, 7, 95-98.
- King, R. G., & Levin, R. (1993). Finance and Growth: Schumpeter Might Be Right. *The Quarterly Journal of Economics*, 108, 717-737. <https://doi.org/10.2307/2118406>
- Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, 35, 688-726.
- Levine, R., Loayza, N., & Beck, T. (2000). Financial Intermediation and Growth: Causality and Causes. *Journal of Monetary Economics*, 46, 31-77. [https://doi.org/10.1016/s0304-3932\(00\)00017-9](https://doi.org/10.1016/s0304-3932(00)00017-9)
- Lucas, R. E. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics*, 22, 3-42. [https://doi.org/10.1016/0304-3932\(88\)90168-7](https://doi.org/10.1016/0304-3932(88)90168-7)
- Mensah, D. D. (2012). *Describing the Current Situation of the Financial Markets*. <https://scispace.com/papers/describing-the-current-situation-of-the-financial-market-in-octtg1fjby>
- Patrick, H. T. (1996). Financial Development and Economic Growth in Underdeveloped Countries. *Economic Development and Cultural Change*, 14, 174-189. <https://doi.org/10.1086/450153>
- Pradesh, A. (2006). *Economic Theory*. Publishing House PVT Ltd.
- Robinson, J. (1952). The Generalization of the General Theory. In *The Rate of Interest and Other Essays* (67-142). MacMillan.
- Schumpeter, J. A. (1911). *The Theory of Economic Development*. Harvard University Press.
- Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, 70, 65-94. <https://doi.org/10.2307/1884513>
- Sunday, K. J., & David, A. K. (2011). Financial Institutions as Catalyst to Economic Development: The Nigerian. *European Journal of Humanities and Social Sciences*, 8, 1-12.
- Sutton, C. N., & Jenkins, B. (2007). *The Role of Financial Services in Expanding Economic Opportunity*. <https://dash.harvard.edu/server/api/core/bitstreams/c87a87f1-ffa4-43f3-a609-a5e2702a622b/content>
- Swan, T. W. (1956). Economic Growth and Capital Accumulation. *Economic Record*, 32, 334-361. <https://doi.org/10.1111/j.1475-4932.1956.tb00434.x>
- Waqabaca, C. (2004). *Financial Development and Economic Growth in Fiji*. Working Paper 2004/03 Reserve Bank of Fiji, Economics Department.
- Wood, A. (1993). Financial Development and Economic Growth in Barbados: Causal Evidence. *Savings and Development*, 17, 379-390.
- Worddata (2022). Inflation-Rates. *Worlddata*. <http://worlddata.info/inflation.php>
- Yosha, O. (1992). *Essays on the Structure of Financial Markets*. [https://en-econ.tau.ac.il/sites/economy\\_en.tau.ac.il/files/media\\_server/Economics/PDF/Yosha-PhD.pdf](https://en-econ.tau.ac.il/sites/economy_en.tau.ac.il/files/media_server/Economics/PDF/Yosha-PhD.pdf)