THE RELATIONSHIP AMONG INTERNATIONAL TRADE, FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH

BY

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DECLARATION

I, SIBIDOW SULEMAN WUMPINI, declare that this dissertation, in whole or in part, has not been previously submitted either by me or by anyone else to this University or elsewhere for another degree that it is my original work and all material therein has been duly acknowledged.

SIGNATURE ....................................................... 

DATE .......................................................... 

SIBIDOW SULEMANA WUMPINI
SUPERVISOR’S CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University.

Signature

Date

DR. SAINT KUTTU
ABSTRACT

In this study, the relationship among economic growth, international trade and financial development in Ghana is explored. The study uses annual time series data extracted from the World Development Indicators from 1997 to 2017. Findings from Ordinary Least Squares estimations show the net imports have a statistically significant negative relationship with economic growth while broad money has a positive but insignificant relationship with economic growth. Additionally, broad money is positively correlated to net imports. The study recommends that import substitution policies to reduce imports as well as a development of the Ghanaian financial market.
DEDICATION

This work is dedicated to my parents, Sibidow Sulemana and Safura Saeed as well as my sister, Hajara Sibidow for their incessant encouragement and support and also to Miss Ancordi Zakia Ashley for your patience and support.
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>OLS</td>
<td>Ordinary least square</td>
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<td>WDI</td>
<td>World Development Indicators</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>HS</td>
<td>Harmonized System</td>
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<td>GITC</td>
<td>Ghana International Trade Commission</td>
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<td>PNDC</td>
<td>Provisional National Defence Council</td>
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<td>GCB</td>
<td>Ghana Commercial Bank</td>
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<tr>
<td>TTB</td>
<td>The Trust Bank</td>
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<tr>
<td>SME</td>
<td>Small and medium scale enterprises</td>
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<tr>
<td>ASML</td>
<td>Accra Stock Market Limited</td>
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<td>NTHC</td>
<td>National Trust Holding Company</td>
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<td>OTC</td>
<td>Over the Counter</td>
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<td>GSE</td>
<td>Ghana Stock Exchange</td>
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<tr>
<td>DSI</td>
<td>Databank Stoc Index</td>
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<tr>
<td>SASI</td>
<td>Strategic African Securities Index</td>
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<td>SAS-FI</td>
<td>Strategic African Securities- Financial index</td>
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<td>SAS-MI</td>
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<td>ARDL</td>
<td>Auto-regressive distributed lag</td>
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CHAPTER ONE

INTRODUCTION

Chapter 1 introduces the study. It starts by providing a background to the study followed by a statement of the problem. The objectives of the study and its associated research questions follow the problem statement, after which the study is justified. The chapter ends with the organization of the study.

1.1 Background of the Study

The relationship among international trade, financial development and economic growth have been a debated topic that has dominated most economic related issues. Postulations have been broadly examined by financial academics in the region of open account, microeconomics and public financial matters. In general, it is been realized that most countries which are actively engaged in trade are considered to have a high growth path and vice versa. Such high growth path has been accredited to trade (Dhoro, Gwaindepi and Musara, 2014). Nevertheless, it is not very easy to point or associate most of countries financial development and economic growth to the activities of international trade (Dhoro, Gwaindepi and Musara, 2014).

Most performance of advanced as well as developing countries are evaluated based on their GDP growth rate. GDP growth an important is one of the most important standards that countries mostly apply in assessing their performance. Many studies and researches that has been conducted has classified some key drivers of economic growth and other possible or likely sources of growth. The outcome from most examinations and investigations on the related topics have demonstrated many diverse drivers of growth in the region of local investment, investment from foreigners, development of the financial system and export. Using time series data on Ghana, the main goal of this study is to examine the level of financial development
association, trade with other nations, financial development and economic growth. In addition, most scholars in the area of economic growth and export have placed more emphasis by looking at the relationship that exist between them. Economic growth and export are both considered as a relevant element in international trade. Ullah et al. (2009) posited that from his analysis that export has a positive significant effect on economic growth. Despite the fact that, more work on growth led by exports has been empirically and thoroughly tested, there still exists strong debate and discussions on the direction of causality and how it has affected these variables. A lot of business transformations and globalizations that has taken place in most developing countries has brought about some amount of allocations in foreign direct investments. Production and manufacturing companies in such countries may possibly go through extensive modifications as a result of education and training, technological advancement, innovations and reconstruction, proficiencies and abilities are all apportioned via foreign direct investment (FDI). More importantly, if domestic demand fails to rise as much as there is a rise in output growth can create many problems in business organizations that thrives well in an economy. When this situation happens producers and manufacturers can export the surplus. Therefore, most countries have used this opportunity to promote export growth. On the other side, national demand growth sometimes exceeds industrial manufacturing development in some nations, when this happens it creates problems in exportation, this eventually brings about a fall in export growth. As a result, the domestic demand encourages and brings about a rise in domestic output, which goes together with a decrease in export, and when this happens the countries productivity in terms of growth begins to worsen the export performance (Lee and Huang, 2002). There is abundance of literature on how an economy's growth is affected by the state of financial development. There have been a lot of consent and agreement on the subject matter in the area of these topics in relation to financial development, which assisted economic growth through various channels, comprising the enlargement, and
development of export (Shahbaz and Rahman, 2014). Another interesting fact is that, a country that is thriving well financially can sometimes also have a positive impact on export as well as a major effect on the development of an output growth of a country (Hur 2006; Shahbaz, 2009). This affirms that countries that have high export shares in terms of trade can be attributed to a disciplined, well-organized, structured and sound financial structure.

Yuan et al. (2014) also suggested that the analysis of international trade and financial development on growth has become an important research subject by most countries. Most research investigations covers the areas of import and export, financial development variables and GDP growth variables like consumer price index or GDP growth. In their analysis, “their study on the traditional theoretical framework of the factor endowment, expounds that business organizations can improve their financial ability to overcome liquidity shortages. This can happen with the support of financial development by reassuring of exports and other export related products that has high ratio dependence on external financing and advancing the economies of scale of trade production and progressing on the structure of import and export” Yuan et al. (2014).

Rajan and Zingales (1998) discovered a comparative more beneficiary concept of financial development in his study on this subject matter. According to them, a country can be financially sound when it looks at how best its financial development programmes aids business organizations and companies to avoid moral hazard and adverse selection problems and thereby ensuring the advancement of external financing by promoting export growth. Per this model, financial development can be characterized by the amount of comparative advantage that most manufacturing and production businesses enjoy which tends them to have high ratio reliance on funding from external sources. These businesses and companies have higher likelihood of benefiting from increased rated of growth and larger export shares. They eventually benefit
from such trading activities and gain extra trade assistances from other economies that have sophisticated and well developed financial systems.

Even though, there has been enormous investigations and discussions on topics focusing on how growth of an economy, net exports and the financial development are related in developed countries and other Sub- Saharan African countries; literature works on this topic in Ghana is limited. This research therefore seeks to bridge this gap and contribute to literature by exploring this data to see the level of association among these variables in Ghana. The study also explores the direction in which these economic indicators move.

Ghana has been considered as “one of the low middle-income country that is situated in West Africa, sharing borders with Burkina Faso to the North, Gulf of Guinea in the South, Cote d’Ivoire on the West and Togo to the East. Ghana is carefully noted and commended as a country with no war records and for its years of political stability. Ghana is mostly recognized by foreign countries and a respected beneficiary for foreign direct investment in the region. The country is ranked 67 on the ease of engaging in business activities and also ranked as an economy that is significantly positioned on services”(INTRACEN, 2016).

Recent findings shows that Ghana is the 71st largest export economy in the world. In 2016, results confirmed that Ghana exported $16.5B and imported $12.5B. This figure proved a positive trade balance of trade amounting to $3.97B in 2016. In the same year, Ghana’s gross domestic product was $42.7B whilst the gross domestic product per capita amounted to $4.29k.

In classifying both import destinations and export destinations, Ghana considers these countries as their major importers and exporters. The following top export destinations of goods and services ranges from Switzerland which is $4.26B, followed by the United Arab Emirates of $3.4B, then India amounting to $1.48B, China valued $1.22B and finally Netherlands amounting to $852M. Again, the top import origins of countries that provides goods and
services for Ghana are China with its worth amounting to $2.71B, the United Kingdom valuing $1.05B, the United States is composed of an amount worth $904M, India’s imports worth $595M and finally Belgium-Luxembourg figure is rated at $505M. To tackle these problems, the study would examine an extensive connection between economic growth, export and financial sector development in Ghana, as well as the causal relationships between the variables.

1.2 Problem Statement

In modern times, there has been a rising recognition of the effects of multi-lateral trade on Ghana’s economic growth and financial development. The two key considerations of a country's economic system is how evolved its financial system is and how the country trades with other nations. This economic system has a comprehensive scope comprising of the services rendered to the government, firms and households. The financial sector is required to ensure that all these economic systems are provided for which provides a wide range of services to these economic system which have influential role to play on economic growth. Every nation, including Ghana, is interested in having a financial sector that is open, effective, well controlled and competitive. Chen (2009) stated that “with the issues of trade and economic growth has been studied by countries for so long in order to come out with a better outcome. There has been developmental debate for prolonged period between the relationship of trade and economic growth. However, regardless of the strenuous research on this topic, there has been little evidence to determine the relationship of trade on income growth”.

There has been a lot of importance and imprecision from the empirical point of view and theoretical point of view on settling the debatable problems.
The purpose for the debate is the emergent and growing interest that relates to the links between trade and growth. “All these controversies that surrounds these discussions relates to whether trade and trade policies play a contributing role or they serve as an enabler of other underlying factors affecting economic growth” (Chen, 2009). “These controversies have resulted due to the outcomes derived from these works and all other things being equal the impact of trade on economic growth is hard to compute since scrutinizing the correlation between the two cannot pinpoint the concrete direction of causality” (Ghartey, 1993; Shan and Sun, 1998).

A stated by Shahbaz and Rahman (2010), “International trade, both exports and imports has a major role that it plays towards economic growth of every country. A country is always required to import raw materials, intermediate and capital goods to enlarge its production base as well as fostering the growth of export if there is a shortage of these goods domestically”. The main requirement is to ensure that all consumer goods that are imported meets the excess domestic demand. In addition, the Export trade is critical because it meets the required foreign exchange gap and also increases the volume of import. An increase in the volume of import enhances industrialization and the totality of all economic activities, which, eventually sometimes brings about positive economic growth (Shahbaz and Rahman, 2010).

The plethora of research that has been undertaken on the subject matter have usually been focused on targeted nations or country groups. Actually, in the past few years, most literature focus on either the growth-trade nexus or the growth-financial development nexus. Studies that explore the relationship among these three indicators together are few and scanty. This topic is particularly rare as in the case of Ghana. In addition, there is an unclear literature works and vague results achieved from probes on how economic growth is influenced by how developed a country’s financial system is and the country’s trade with other nations (Katircioglu, et al. 2007). From this essay, the author seeks to bridge this gap and contribute to literature by
exploring this data to see the level of association among these variables in Ghana. The study also explores the direction in which these economic indicators move.

1.3 Objectives of the Study

This research examines the economic growth, international trade and financial development relationships. The study has the following specific objectives.

i. Evaluate the relationship between net exports and Gross Domestic Product (GDP) of Ghana.

ii Determine the impact of financial development on Ghana's GDP

iii Determine the correlation among net export, GDP and financial development.

1.4 Research Questions

Centered on the objectives of the study, the following research questions are posed.

i. What is the relationship between net imports and Gross Domestic Product (GDP) in Ghana?

ii. What are the impacts of financial development on economic growth in Ghana?

iii. Is there a correlation among net export, GDP and financial development?

1.5 Significance of the Study

Due to liberalization and globalization, a country's economy has become much more closely associated with external factors such as trade openness. Thus, investigating a study on the effects of international trade on economic growth is of great importance in this globalized and information technology era. The research will also help policymakers and government find
appropriate and formulate proper policies and programmes by evaluating how Ghana’s economy can grow with respect to its trade patterns.

Therefore, this study will point out how international trade contributes to the growth of Ghana’s economy and as well explore how the development of Ghana’s financial system fosters growth. As a differentiating case study, the research work can help to demonstrate how a developing country is catching up with some advanced (precursors) by enhancing its international involvement.

Finally, the survey is anticipated to serve as a reference and guide for academics and scholars interested in carrying out subsequent research job.

1.6 Organization of the study

The framework of the research is as follows: chapter 2 discusses the theoretical and empirical literature on the role of financial development and international trade on the growth of an economy, chapter 3 explains the methodology and data used while the chapter 4 discusses and shows the outcomes. Finally, chapter 5. Provides findings and suggestions for policy formulation.

1.7 Summary

This chapter has given an insight into the basic underpinnings of financial development, growth of an economy and international trade in Ghana. The background of the study, statement of the problem, research questions and objectives as well as the justification for the study were addressed.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter 2 provides a discussion on the literature review of the subject matter under study. The chapter is grouped into two main parts, namely theoretical literature review and empirical literature review. The theoretical review of literature probed theories, propositions, and concepts that others have given concerning the level of association existing between trade, financial development and growth of an economy. The empirical review of literature on the other hand also delved into related research work that has been implemented by other authors and how its results relate to the implementation of the study.

2.2 Theoretical Review

The various theoretical discussions on international trade, financial development and economic growth show relevant different opinions on varying studies on the subject matter being researched. The argument from the economic growth led by international trade and financial development is still complex as the study was carried out with the realization that there were inadequate related local studies concerning the topic chosen. The existence of such gaps give credence to the need for further research on Ghana and as a result motivates the author to focus on this subject are to add more voices to the debate.

2.2.1 International Trade in Ghana

According to Simpson (2013), International trade is the give-and-take of goods, services and capital across national borders. Ghana’s varying economic growth coupled with her average
extension made the country open to foreign trade and targeting the world market (Simpson, 2013). “The peaceful political environment, huge natural resources and the countless trained and capable labor have made Ghana investment destination and a modern universal factory. The discourse about the role foreign trade plays in increasing economic growth and especially output, have been continuing since many years ago” (Simpson, 2013).

The major results from studies of comprehensive literature showed that internationally active countries tend to be more productive than countries which only produce for the domestic market. Liberalization and globalization has made some countries' economy to become closely associated with external factors such as openness (Simpson, 2013).

Simpson (2013) stat that, “a country’s openness assists policymakers map out suitable strategies by determining the cause of growth in production with regard to international trade. Since the instigation of economic reorganizations and the assumption of the open door policy, international trade and Ghana’s economy have had steady growth”. “Addition of Ghana into the international economy has contributed immensely to its sustained economic growth. Most industries with comparative advantages have begun acquiring high level of specialty enabling the inflow of foreign currency and employment thereby increasing Ghana's gross domestic products” (Simpson, 2013).

2.2.2 Historical Background of International Trade in Ghana
In the thirteenth century, contemporary Ghana was engaged in long-distance business with many nations largely due to its mineral deposits. In the words of the US Library of congress, (2018),
The trans-Saharan trade, one of the most widespread business linkages of pre-modern era, include exchange of European, North African, and Saharan commodities southward in exchange for African savanna and forest goods like gold, kola nuts, and.

More so, Ghana is endowed with mineral deposits like gold, diamond, bauxite, among others as well as agricultural products like oil palms which were situated between the trans-Saharan trade routes and the African coastline. Contemporary Ghana, named the Gold Coast by European traders, was a vital cradle of gold and other treasurable minerals traded across the Sahara. Organized and unified states such as Asante regulated the prices by controlling production and marketing of these valuable commodities in the Gold. Besides, as European navigational systems enhanced in the fifteenth century, Portuguese and later Dutch and English traders tried to outwit the Saharan trade by cruising directly to its southernmost source on the West African coast. In 1482, the Portuguese built a strong trading post at Elmina and started buying gold, ivory, and pepper from African coastal merchants. Even though Africans for many years have exported their raw resources such as ivory, gold, kola nuts in exchange for imports ranging from salt to foreign metals. The commencement of the Atlantic slave trade in the early sixteenth century altered the nature of African export produce in several ways. A good number of Africans wanted to enrich themselves by apprehending their own people in war, defeat and sell them to traders from America. These slaves were used as barter trade. Thus they were taken to the coast often in exchange for guns as payment, which could help them protect themselves against political insurgency.

Furthermore, when Gold Coast attained independence from Britain in 1957, the economy was put in proper shape and started seeing stability and prosperity. “Ghana being the world's leading producer of cocoa, improved a well-built infrastructure to service trade, and enjoyed
comparatively radical educational system. The then President, Kwame Nkrumah, at independent sought to use the apparent stability of the Ghanaian economy as a catalyst for economic modification and extension. He started the process of moving Ghana from a predominantly agricultural economy to a mixed agricultural-industrial one. Using cocoa revenues as security, Nkrumah has gone out for loans to put up industries that would produce import substitutes as well as process many of Ghana's exports”. The President's plans were ambitious and grounded in the aspiration to lessen Ghana's exposure to world trade (US Library of Congress, 2018). “Unfortunately, the price of cocoa has fallen in the mid-1960s. This destroyed the backbone and stability of the economy and making it practically difficult for Nkrumah to execute his plans. Widespread corruption by people in politics and public service aggravated these problems. Not long, a group of military officers ousted Nkrumah and inherited a nearly broke economy” (US Library of Congress, 2018). The fall of cocoa prices in the mid-1960s, led to inconsistent flow of foreign currency necessary to repay loans, which value jumped almost ten times between 1960 and 1966. “Some economists recommended that Ghana devalue its currency in order to command good cocoa price on the global market. The problem of the devaluation of the cedi was that it rendered loan repayment in United States dollars much more difficult. Moreover, such devaluation would have shot up the costs of imports, both for consumers and indigenous industries. When production and exportation of goods came to a standstill, further loans were procured and this increase indebtedness and susceptible to global commodity markets” (US Library of Congress, 2018).

In many countries including Ghana, companies have been put up with the aim of “providing impartial investigations, adjudication and imposition of measures to protect domestic industries from the negative effects of international trade as well as promote the development of international trade”. One of such organizations is Ghana International Trade Commission (GITC).
2.2.3 Ghana’s Industrial Sector
Ghana’s industrial sector is made up of the mining and quarrying, construction, manufacturing, water and sewerage and the electricity sub-sectors. The construction sub-sector involves in repair, construction and demolition of highways, buildings, sewage, streets, bridges, roads, railways and communications systems. The manufacturing sector encompasses firms are engaged in beverages, food processing, textiles, tobacco, petroleum refinery, and cement production. Further, "activities such as extraction of gold, diamond, bauxite, salt, stones and sand are found in the mining and quarrying sub-sector while electricity, water and sewage sub-sector engages in the production and distribution of electricity and water” (Seidu and Madjie, 2017).

In the words of Seidu and Madjie, (2017), “unfair trade practices do not only refer to imports, it also includes unfair competition on the domestic market, where businesses collude, connive and engage themselves in anti-competitive practices giving them undue advantages like gaining market share and dominance. Complaints such as these were there but the biggest challenge has been inadequate legal and regulatory regime” (Seidu and Madjie, 2017).

2.2.4 Financial Development
“Financial Development is the outlays of obtaining information, carrying out contracts, and doing businesses that create inducements for the improvement of particular types of financial contracts, markets and intermediaries” (Yeboah and Opong, 2017).

The financial services industry include companies that deal with the management of money. “In Ghana, the financial services industry is classified into three major sectors: Banking and Finance (including Non-Bank Financial Services and Forex Bureaus),
Insurance and Financial markets/capital markets. There are both local and foreign banks, microfinance, savings and loans, and leasing companies in the industry” (Agyei, 2015, p.9).

2.2.4.1 The Financial Sector of Ghana
This section of the study attempts to review the state of Ghana's financial sectors during pre-1985 and post 1985 eras; including the history of Ghana's financial sector and the financial sector reforms in Ghana.

2.2.4.2 Historical Background of Ghana’s Financial Sector
Ghana’s financial sector is made up of financial institutions (banks and non-banking institutions), insurance, and stock market and fund management institutions. This notwithstanding, the thesis focuses on banks specifically Ecobank. Besides, Baah-Boateng (1999) explained “Banks as financial intermediaries that accept deposits from surplus spending units and channel these in the form of loan products to deficit spending units in the economy. Banking began in the then Gold Coast during the colonial era with the aim of providing financial services to the British businesses and the colonial administration. Bank of British West Africa was established in 1896 in Accra”. The bank later changed its name to Standard Chartered Bank in 1985. The lucrativeness of the banking business has attracted other foreign banks like the Colonial Bank (1918) which later merged with Anglo-Egyptian Bank, the National Bank of South Africa and Barclays Bank to become known as Barclays Bank.

The incorporation of local banks like Meridian, The Trust Bank, CAL Merchant Bank, Allied and Metropolitan Bank and Ecobank was a result of the financial reforms and the enactment of the banking law in 1989 (PNDC Law 225). “Between 1960s and 1970s most of the banks were owned by the public sector. This strengthens government control in the financial sector after independence but the state privatized some of them in 1992. The openness of the financial sector has brought about improved savings, deposit mobilization, financial
deepening, and competition in the banking industry leading to the entry of some indigenous and foreign banks. Nevertheless, lending rates were high with wider spread between deposit and lending rates” (PWC, 2014).

In 2004, new Banking Act was introduced. “This has led to elimination of secondary reserves and adjustments in the minimum capital as well as introduction of universal banking license which allows various forms of banking services. The minimum capital was initially raised to GHS 60 million in 2007 and then to GHS 100 million in 2013” (Mensah and Abor, 2014). With the continuous increase in the minimum capital requirement some banks merged and others were also acquired. “For instance, Access Bank and Intercontinental Bank, Ecobank and TTB Bank, and HFC Bank and Republic Bank of Trinidad and Tobago” (PWC, 2018). “Besides, the Central Bank has given GCB Bank the green light in July 2017 to acquire UT Bank and Capital Bank; and in August, 2018, Bank of Ghana again declared the formation of Consolidated Bank Ghana to take over five other struggling local banks. These included Beige, Sovereign, Construction, Royal and Uni bank. This has reduced the number of licensed banks to 24” (PWC, 2018).

The quantum of funds from overseas has risen as a result of the rise in the amount of new banks into the Ghanaian banking sector. These funds have come in to augment and facilitate creation of credit in the sector. “One key task of international banks is the injection of foreign capital into the economy, thus countenancing for the generation of more investment funds to spur production and growth. In principle, foreign loans help slacken the constraints on domestic savings and investments” (PWC, 2018).

Inferring from Aryeetey et al (2002), financial sector development should imply efficient and effective financial resource mobilization and allocation to prioritized real sector development. However, before the industry-wide reorganizations of the financial system,
the sector had been characterized by financial shallowing and/or repression and therefore failed in effectively intermediating funds to growth improving real sectors of the economy such as agriculture and manufacturing.

2.2.5 Current Ghanaian Financial sector Development

The Bank of Ghana instructed all commercial banks operating in the country to increase the minimum stated capital from 120 million Ghana cedis to GHS400 million Ghana cedis in September 2017 and demanded that banks comply by the end of December 2018 (PWC, 2018). “This will further advance, deepen and modernize the financial sector to support the Ghana’s economic growth and transformational agenda” (Bank of Ghana, 2018).

In the same vain, within one year, the number of universal banks has decreased ahead of the deadline due to some measures taken by the regulator. “The fact is that this is not the first time the banking industry is undergoing this rise in compulsory minimum capital. Banks usually have three major choices for meeting the new minimum capital demand: Injection of fresh capital; Capitalization of reserves; and Business consolidations” (PWC, 2018). “Nevertheless, international banks in the industry may rely on additional capital injection from their mother banks. Though this option might serve as complementary source, they can also count on distributable reserves. Some banks have also announced plans or efforts to raise capital locally” (PWC, 2018).

Obviously, there are substantial consequences about the modifications in the Ghanaian banking sector for the economy over the years. “First of all, the arrival of international banks, particularly from Nigeria and South Africa, has led to intense competition in Ghana’s banking industry, with regard to volume of deposits mobilization and the amount of market share of the various banks. For instance, there are presently seven Nigerian banks operating in Ghana, representing about 25.5% of the entire number of banks in the country. It is however
significant to put on record that the rate of rivalry in the Ghanaian banking sector is a contributory factor to the level of effectiveness and productivity we have seen some substantial level of enhancement in service delivery and efficiency across the various banks in the country” (Bank of Ghana, 2018).

The present rivalry has also reformed banks’ approaches and strategies to dealing with Small and Medium Enterprises (SMEs). “Many banks have now established SME desks with the motive of focusing and providing specific banking services to SMEs. Nevertheless, these businesses are not really doing anything different from what pertains in corporate banking. Moreover, terms and conditions of loan acquisition applicable to large corporates still apply. Hence, much need to be done on enlightening banks’ on peculiar financing problems confronting SMEs and how to develop specialized products to address those needs” (Bank of Ghana, 2018).

The shortcoming of the modifications that have happened in the banking sector over the years, especially from early 1990s is the high interest rate. This leads to high cost of capital and low rate of saving. The low deposit mobilizations by the banks tend to dampen savings by the public. “With the existence of low deposit rates of banks relative to the rates of other instruments, investible funds are likely to find their way to other investment options such as government treasury bills and thereby worsening the savings mobilization” (Bank of Ghana, 2018). Conversely, not only does increased lending rates truncate credit access but it also increases the number of people who are likely to default at those increased rates. “Thus, regardless of the numerous transformations and strategies initiated by the industry players, aimed at improving efficiency in the industry to curtail interest rates, banks continue to exhibit high interest rate. The high inflation rates also tend to aggravate the situation” (Bank of Ghana, 2018).
In addition, it is imperative for the supervisory body to make sure that there is competition in the banking industry. With a competitive industry, rates are also competitive and hence rates are not increased indiscriminately. Banks are profit-oriented entities and as a result are more interested in their profit margins. The supervisory body needs to ensure that set standards for reserves and capital adequacy are adhered to in a bid to encourage safe finance practices. “The need to keep inflation within reasonable levels is supreme since the level of inflation tends to feed into bank interest spreads. In this respect, the constant effort to decrease the current high levels of government budget financing will go a long way to reduce inflation and ultimately bank interest rates” (BoG, 2018).

Finally, the number of licensed banking institutions has fallen to thirty-four (34), after the licenses of two bankrupt banks, namely, UT and Capital banks were withdrawn in July 2017 due to their severe capital impairment. “Of the thirty-four (34) licensed banks, seventeen (17) were classified as locally-owned, while the remaining seventeen (17) were foreign-controlled. By end-December 2017, the branch network of the banks stood at 1,483 distributed across the ten (10) regions of the country. The banking industry remained liquid, sound and profitable in 2017 as reflected by the performance of major Financial Soundness Indicators (FSIs)”. All these programs will go a long way to strengthen banking institutions, improve credibility and complement the sector’s contribution to the economy going forward (Bank of Ghana, 2018).

2.2.6 Impacts of Financial Development on Economic Growth

Financial development plays a major role and impacts positively on economic growth (Schumpeter, 1911). “Many studies have supported this theory by various research findings. The data used supports earlier argument that financial services stirred up productivity and economic growth where the capital accumulation rate improved. This according to the studies could be attained by improving the efficiency at which economies used the capital” (King and Levine, 1993). Further study by Rachdi and Mbarek (2011), using
the error correction model approach showed that financial development led to economic growth.

“Financial development includes enhancements in the (i) production of ex-ante information about possible investments, (ii) monitoring of investments and implementation of corporate governance, (iii) trading, diversification, and management of risk, (iv) mobilization and pooling of savings, and (v) exchange of goods and services. Each of these financial functions may influence savings and investment decisions and hence economic growth “(Agyei, 2015).

Single key argument in the growth theory is the degree to which financial development enhances economic growth. It is not far-fetched to suggest a positive correlation between economic growth in the financial and real sectors (Agyei, 2015). “Financial markets and organizations play vital roles in the economic development process, particularly through their role in assigning finance to commercial activities” (Takyi and Obeng, 2013). This function has been well investigated and recognized in the empirical literature, using a diversity of econometric techniques.

2.2.7 Effects of International Trade on Economic Growth

“There has been increasing theoretical evidence of positive relationships between international trade and economic growth in many developed nations but such relationship has not been proven empirically in developing nations, specifically among African countries” (Takyi and Obeng, 2013). In his attempt to establish such relationships, Edwards (1993) provides a comprehensive review of the key issues linking international trade and economic growth in developing countries. Salvatore and Hatcher (1991) and Ghartey (1993) explained that “productivity may cause exports in a country where the degree of openness is low and with relatively abundant resources”.
“Furthermore, the African Development Report (2012) identified international trade as a powerful tool through which gains from globalization are distributed among nations. However, the relationship between trade and growth does not establish a cause and effect, because as economies grow, they trade more and become more open” (Chatterji, Mohan & Dastidar, 2013, p.9). More so, studies showed that international trade could promote economic growth through technology spill over and external stimulation (Romer, Lucas and Svensson; cited in Musara et al., 2013).
2.3 Empirical Review

Different economists using different econometric techniques as well as different research works by different authors have tested the contribution of international trade, financial development and economic growth.

A research conducted by Bilas, Bosnjak and Novak (2017) examined the relationship between financial development and international trade in Croatia. The study conducted the search considering the first quarter of 1997 to the last quarter of 2015. The research assessed the short run and long run relationship between financial development and international trade using the autoregressive distributed lag (ARDL) bounds testing approach. The study used this approached to examine the long run and short run relationship among the series. The empirical results proved that there was unidirectional Granger causality from financial development to international trade. The study found out that there was a strong co-integration between financial development and international trade in the country. “The results showed a 10% level of significance with a negative long run and a positive short run relationship that exist between financial developments and international trade. The study proved that the relationship between financial developments and international trade is negative and this arose as a result of so much loans to the private sector on credit by financial institutions as a percentage of gross domestic product was correlated with lower trade openness in the long run” Bilas, Bosnjak and Novak (2017). Per the outcome, it was proven that the relationship might be as a result of import-dominant due to the major dependence and consumption of largely imported goods. Their study revealed that “exchange rate was not a significant variable during its estimation in the long run and about 88.35% of the variation in Croatian international trade can be explained by variations in loans to the private sector by credit institutions as percentage of GDP. The results from international trade, real GDP growth and loans to the private sector by credit institutions as a percentage of GDP were closely related in the long run” Bilas, Bosnjak and Novak (2017).
Sajo and Li (2017) examined the relationship among Financial Development, Export and Economic Growth in Nigeria using the ADF and the PPF test model. The study looked at the co-integration of variables as well as employing the Johansen co-integration methodology approach to explore the long run relationship among the variables. A time series data was used to conduct this research from 1994 to 2013. Granger causality test and Ordinary least square (OLS) was used to test the direction of causality between the variables. The study confirmed that Nigeria cannot grow economically without export development as well as transportation. The study came out with its findings that exports and transportation development in Nigeria has a positive significant effect and impact on economic growth. “Nevertheless, there was an interesting results among these variables, which is financial development, international trade structure and energy sector has a negative effect on economic growth. Hence, it can be concluded that there is a positive relationship between export and transportation which in turn has a significant impact on GDP effect which influences the economic growth and negative effect on financial development” Sajo and Li (2017). Moreover, their results showed that there was also negative relationship that exist between international trade and GDP growth. According to the study, the activities of the informal sector deals in trade which the government of Nigeria has no knowledge about and also no official records that are kept by the state. Even though the transactional records in other countries can be traced but that of the Nigerian state has no records of it.

Yucel (2009) studied on causal relationships between Financial Development, Trade Openness and Economic Growth using Turkey as a case of study. The study used the Johansen and Juselius method for co-integration and applied the Granger causality approach in testing its variables. A time series data was employed for this research from the period of 1987 to 2007. The findings revealed that “a combination of financial development and trade openness has a statistically significant effect on economic growth in Turkey. Also, it was observed that from
the findings that, while financial development has a negative impact on growth while trade openness has a positive impact on growth” Yucel (2009). The findings of Yucel (2009) confirmed some other related results from other authors such as Saaed et al (2015).

A review by Asghar and Hussain (2014) on the trade-financial development-growth nexus in developing countries came out with some revelations. A time frame from between the period of 1978 and 2012 of some developing countries were looked at. The study of Asghar and Hussain, revealed that in developing countries, “there exists a strong indications of the long run relationship between financial development and economic growth. Furthermore, there exists a bi-directional causation between foreign direct investment and financial development of most developing countries. It was found out that no country can grow without trade openness. Additionally, that trade openness has a strong impact on financial development in all the countries that were tested” Asghar and Hussain (2014). This attested that there was a need for the introduction and implementation of effective policy measures that will help promote bilateral trade between countries.

According to Wang, Li, Abdou and Ntim (2015) reviewed a study on the topic “financial development and economic growth in China. The study looked at the primary sectors, secondary and tertiary sectors of the economy. The study was examined by using a time period from 1978 to 2013 and applying the Ordinary Least Square (OLS) multiple regressions to analyze data from its secondary source using annual data from the National Bureau of Statistics of China (NBSC) and the World Bank. The research came out with some conclusions that more attention will be needful on developing capital markets in the country and also the provisions of more investment and business prospects should be made available for Chinese households. The study find out that china was affected by some economic reforms and suffers under development in the Chinese Capital market.
The results from their findings were in consistent with other outcomes from studies conducted by Hasan et al. (2009) and Adusei (2013). Their findings also attested to the assertion that there was a negative relationship between financial development and economic growth in China and Ghana respectively. According to Adusei (2013), there is a negative finance growth relationship in Ghana. His study showed that the negligence of the supervision of government and his administration has resulted into over lending and careless lending in the various banking sectors. “The negative finance growth in china is as a result of high non-performing loans in the state owned banks. According to them, the dominance of the state owned banks in China has led to this since most of these banks provide loans to state owned enterprises without considering their ability to pay” (Hasan et al. 2009).

Tsaurai (2017) evaluated the association among trade, financial development and growth in Argentina. The work explored the interrelationship that exist among these three variables. The study employed yearly time series data 1994 to 2014 and estimated using the Vector Error Correction Model (VECM). “There is a positive and significant uni-directional causality that runs among the three variables. In their findings, there is a positive causal relationship that runs from financial development to economic growth in the long run as well as a positive one that runs from trade openness to financial development in the long run. Even though their analysis came out with the existence of a positive result but with a weak uni-directional causality that runs from financial development to trade openness and trade openness to economic growth and from economic growth to trade openness” Tsaurai (2017).

Another empirical study by Gries et al (2009) on the relationship of financial development, economic growth and trade openness among countries in Sub Saharan Africa. The authors sought to find the interrelationships that exists among the three variables using Hsiao Granger approach. “There is no or negligible impact of financial development and trade openness towards economic growth, that is to say that the combination of financial development and
trade openness negligibly influenced economic growth in SSA countries. On the other hand, Gries et al (20011) studied the interrelationship between financial development, economic growth and trade openness in the Caribbean and Latin American countries using vector error correction model (VECM)” Gries et al (2009). In Latin American and Caribbean countries, the authors found no association-whether direct or indirect among the three indicators. Other empirical works by Alajekwu et al (2013)and Menyah et al (2014) supported the findings by Gries et al (20011). The study also supported for co-integration between the variables. “The findings established that there exists a bidirectional causal relationship between financial development and economic growth in long run whiles trade openness does not seem to Granger cause financial development and trade openness. One important point was that all the research work was done in the African countries” Menyah et al (2014).

Using the Multivariate Framework Analysis test to study the relationship between financial development, international trade and economic growth in Australia, Shahbaz, Rahman and Abdul (2012) came out with some findings in their investigations. The study considered the case study of Australia over a forty-five (45) year period from 1965 to 2010. In running the series to test the relationships the ARDL bounds testing approach co-integration was used to explore the long run relationship among the variables. The empirical evidence established that in both the long run and the short run the key drivers of economic growth are capital, financial development and international trade. “The study confirms that feedback effect exists between international trade and economic growth and in the case of Australia, financial development Granger causes economic growth validating supply-side hypothesis” Shahbaz, Rahman and Abdul (2012).

Acaravci, Ozturk and Ali (2009) examined the linkage between financial development and growth in SSA. The paper explored the growth-financial development nexus for the period from 1975 to 2005. In analyzing the data , the study employed the panel GMM and co-
integration tests. “There is no relationship that exists between financial development and economic growth in the long run period. Empirically, the result from the study of the panels of 24 sub-Saharan African countries shows a bi-directional causal relationship between the growth of real GDP per capita and the domestic credit provided by the banking sector” (Acaravci, Ozturk and Ali 2009). According to the results, “there existed a causal relationship on the indicators of both financial development and economic growth. The results also evidenced that the existence of bi-directional causal relationship between the real GDP per capita growth and the domestic credit that is provided by the banking sector in this country whilst the study pinpointed out a one-way causal relationship between domestic credit to the private sector and the real GDP per capita growth”. The study also emphasized that the real GDP per capita growth produces about a higher level of results on financial depth in an economy whereas higher liquid liabilities has bigger chance in bringing about higher future per capita GDPS in sub-Saharan African economies. The examination of the study asserted that the financial sector of the economy affects economic growth mostly by means of an increase in the efficiency of investment.

Gokmenoglu, Amin and Taspinar (2015) explored in their study the relationship among international trade, financial development and economic growth using Pakistan as a Case Study. The study also adopted the ADF and PP tests to check the order of integration of the variables while employing the Johansen co-integration methodology to investigate the long run relationship among these variables. The study further tested the direction of causality using Granger Causality test. The research used annual figures from 1967 to 2013 containing some key variables relevant for the purpose of the study. The variables that was factored in the study comprised of exports, imports, gross domestic product (GDP), and domestic credit to private sector by banks, money and quasi money. “The study revealed in its findings that there is a one way directional relationship between gross domestic product and import, import and export
and quasi money and import but on the other side, there exists a bi-directional relationship between quasi money and gross domestic product” Gokmenoglu, Amin and Taspinar (2015). The Granger causality test proved that in Pakistan financial development is driven by economic growth and economic growth is also driven by financial development. “This means that each variable is dependent on the other variable. It further showed that imports are GDP growth and financial development driven. The paper establishes that in this country any change that occurs in the economic growth would have an impact on import which in turn affects the exports of Pakistan” Gokmenoglu, Amin and Taspinar (2015). Nevertheless, the bi-directional effect between economic growth and quasi money admits that financial development pushes up growth, then economic growth in turn pushes up financial development, which makes it more relevant to maintain a sustainable economic growth. The study concluded that a well functioned financial sector is significant in the promotion of economic growth of every country.

Jalil and Ying (2008) in their study investigated the relationship between financial development and economic growth for two countries, China and Pakistan respectively. The study considered a times series over a period of 45 years from 1965 to 2005. The study tried to look at relationship that exist among the variables using the bound testing ARDL techniques to co-integration to find out the existence of a long run relationship. This confirms that the test hypothesis of their study “financial development leads to growth” still holds in the two countries. From the analysis, it was found out that the attribution of inefficient and unproductive allocation of resources in China was as the result of the insignificant impact of credit expansion on growth. The study also showed that “there are fewer investment opportunities and also riskier investment opportunities and in both countries citizens choose to keep their savings in the deposit other than any form of financial instrument”. The study also came out with findings that there exists a positive results and came out to attest that the relationship between financial development and economic growth yielded a significant
resultant as in Pakistan, the country under study. On the other hand, comparing this case to that of China, the investigations conducted demonstrated a positive and significant relationship for deposit liability ratio, however represented insignificant relationship with credit to private sector. “The study concluded that Pakistan has better maintained a liberal and positive real interest rate to enhance savings and investment. Likewise, to the study, the non-financial factors of growth like capital is relevant in the case of China and Pakistan while trade is relevant in the case of China” Jalil and Ying (2008).

2.4 Summary

This chapter has provided the literature review of the subject under consideration. The first part looked at the theoretical underpinnings of the growth-financial development-trade nexus with the second part focusing on a review of previous empirical literature.
CHAPTER THREE

DATA AND METHODOLOGY

3.1 Introduction

This section covers the techniques used in collecting and analyzing data. The main sections discussed in this chapter include data collection, how the variables will be analyzed, model specification and the econometrics of the study. The methodology is highlighted to answer the research questions and the objectives of the study. The statistical and econometric tools used to analyze data are examined in this chapter.

3.2.1 Study Population

This study used a strongly balanced by a macroeconomic secondary data, which was derived from the World Development Indicators database for 21 years from 1997 to 2017. The study considers only the economy of Ghana as its case study. Ghana was selected for this study because it is considered as part of the developing economies in West Africa.

3.2.2 Data Description

Annual time series data for Ghana covering a total of 21 years (from 1997 to 2007) is used for this study. Proxies for trade openness, financial development and economic growth were used to derive net imports (percentage of GDP), broad money supply (percentage of GDP) and GDP per capita respectively. The secondary data was derived from the Central Bank of Ghana, Central Bank of Ghana Publications, World Bank Indicators (WDI), International Monetary Fund, African Development Bank databases. Other sources of data that will be used will include Economic newsletters, Textbooks, Internet and Published articles in the subject matter.
3.2.3 Data Entry and Data Collection Instruments

Different authors have used varying types of data for their research. Angko (2013) employed the use of annual time sequence data on Ghana from 1970-2006 and an error correction model that takes into consideration each short and long run relationships. Dahlgren and Whitehead (1991) used trend data instead of cross-sectional data in his study, even though trend data is usually difficult to come by. Chidoko et al (2011) used time series data from Zimbabwe for a period of thirty years and employed semi-log regression analysis on the model and later an Error-Correction methodology on the model to prevent spurious regression results. This study will use annual data from 1997 to 2017.

3.3 Econometric analysis

This study using Ghana examines the link among financial growth, international trade and economic development. A log-linear estimation specification will be used in this study. The variables are log-transformed to take growth effects into consideration as well as partial elasticities.

The practical form of the equation is written as follows:

$$LGDP_t = f(LBM_t, LNX_t, LDC_t, LUP_t, LFDI_t)$$.

The log-transformed equation of interest is of the form

$$LGDP_t = \beta_0 + \beta_1 LBM_t + \beta_2 LNX_t + \beta_3 LFDI_t + \beta_4 LDC_t + \beta_5 LUP_t + \epsilon_t \ldots \ldots \ldots \ldots .1$$

Where $\epsilon_t$ represents the error term

LGDP represents the log of real GDP per capita

LBM represents the log of Broad money (% of GDP)

LNX represents the log of net imports

LDC represents the log of domestic credit provided by the financial sector

LUP represents the unemployment rate and

LFDI represents Foreign Direct Investment
3.4 Variable measurements and definition

In plain terms, a variable denotes a property of an event or occurrence associated with a particular object (Ryan et al., 1992). Variables can be dichotomized as dependent and independent (Harris, 1995). The effect of changes in the independent variable upon the dependent variable is measured in data analysis (i.e. a projected change occurs with dependent variable when independent variables change.

Different researchers have used varying proxies as alternatives for measuring growth of an economy or the level of development of a country’s financial sector. Adamopoulos (2010), in his research on the relationship between financial sector development and economic growth in Ireland between 1965 and 2001, used credit market development as proxy for financial sector development.

Siaw & Adam (2010) explored the role played by Ghana’s financial development on the growth of Ghana’s economy covering the period from 1970 and 2007. Just like Adamopoulos (2010) and Yucel (2009), growth in GDP was used as a proxy for economic growth, whereas credit to the private sector as a percent of GDP, liquid liability as a percent of GDP and bank liquid reserve - asset ratio was used as proxies for financial sector development. Adusei (2013) in his investigation into the finance – growth nexus in Ghana also used GDP growth as a proxy for economic growth, whereas he engaged broad money supply as a share of GDP, domestic credit to the private sector as a share to GDP and domestic credit as a share to GDP as proxies for financial sector development. It was settled that financial sector development destabilizes economic growth in Ghana.
3.4.1 Independent Variables -

Financial Sector Development

Financial sector development ensues when financial instruments, markets, and intermediaries collaborate to reduce the costs of information, implementation and transactions. A firm and well-functioning financial sector is a potent drive behind economic growth (World Bank). A good measurement of financial development is essential in assessing the advancement of financial sector development and understanding the conforming impact on economic growth. Measuring financial sector development is challenging as it includes various elements. The most commonly used proxy for financial development in the literature has been the use of different banking and money measures.

“Siaw and Adam (2010) used as a proxy for financial sector development in their study into whether financial sector development cause investment and growth, credit to private sector as a percent of GDP, bank liquid reserve- asset ratio and liquid liability as a percent of GDP”, Kolawole (2012; p.8). While exploring the link between growth of an economy and financial development, Adusei (2013) used domestic credit as a share of GDP, domestic credit to private sector as a share of GDP and broad money supply as a share of GDP as proxies for financial sector development.

This research will employ domestic credit supplied by the financial sector and broad money supply as a proportion of GDP and as the financial sector development proxies. This data will be sourced from the databank of the World Bank’s global database, the world development indicators.

International trade

There is not conclusive evidence to show the direction of the relationship that exists between international trade and growth of an economy (Balaguer and Cantavella-Jorda, 2002). However, studies like Jin (2000) and Bahmani-Oskooee and Alse (1993) show that openness
of trade fosters economic growth. In capturing trade, the most used proxies have been imports and exports (both as a share of GDP). This study follows authors like Uddin & Chakraborty (2009, December) in using exports and imports as the trade proxies. However, the study uses the differences of these two variables and hence use net imports as the proxy for international trade. Data on imports and exports will be acquired from the World Development Indicators (WDI).

**Control Variables**

In addition, the main dependent variables of interest, two other development determinants will be included in the study. Total unemployment rate and foreign direct investment will be included as control variables. Data on these two indicators will be sourced from the data bank of the World Bank, the World Development indicators.

**3.4.2 Dependent Variable - Economic Growth**

Different researchers have used different proxies of GDP to represent economic growth in the study of the relationship between finance and growth. “Take Zhang et al for example who used per capita GDP as a proxy for economic growth in the research into finance growth nexus in China. Alternatively, to measure economic growth, Kolawole (2012) employed real GDP growth as a proxy for economic growth in his study of Nigeria” Adusei (2013).

Most studies have used the per capita value of Gross Domestic Product to stand as the appropriate measure for economic growth (King and Levine, 1993a; Demetriades and Hussein, 1996; Arestis and Demetriades, 1997; Levine, 1997; Levine and Zervos, 1998; Christopoulos and Tsionas, 2004; Odhiambo, 2010; Quartey, 1997, 2005, 2008; Siaw and Frimpong, 2010; Adusei, 2012). In line with these studies, the researcher use Per capita GDP as proxy for economic growth. “GDP is the addition 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” (World Bank Indicators). GDP per capita is gross domestic product divided by population (World Bank Indicators).

3.5 Data Analysis

All statistical estimations and analysis are carried out using EViews 9.0 and STATA 14 econometric packages. Descriptive statistics, correlation matrix and OLS regression will be generated using these software.

3.5.1 Research Design and Approach

The study adopts a quantitative approach. Burns and Grove (1993) define quantitative approach as a “formal, objective, systematic process to describe and test relationships and examine cause and effect interactions among variables”. Quantitative research involves counting, evaluating events and performing the statistical analysis of a body of numerical data (Smith 1988). A descriptive survey was selected as it conveys a precise description of the characteristics. “For example behavior, opinions, abilities, beliefs, and knowledge of a particular individual, situation or group. Descriptive research involves collecting data that defines an event” (Glass and Hopkins 1984).

3.6 Summary

This chapter has conveyed a description of the tools and procedures that the study will be based on. The data type and source has been discussed and well as the method of analysis.
CHAPTER FOUR

DESCRIPTIVE ANALYSIS AND DISCUSSION OF RESULTS

4.1. Introduction

Chapter 4 provides a description of the data as well as results of the estimations. The data and empirical result analysis presented in this chapter are guided by the study objectives. The chapter begins with a brief discussion on the measures of central tendency of the variables under study. Then come the correlation matrix followed by the OLs estimations. Check for robustness ends the chapter.

4.2 Descriptive Statistics

Table 1: Descriptive statistics of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs.</th>
<th>Mean</th>
<th>St. Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPpercap</td>
<td>21</td>
<td>1065.53</td>
<td>704.8041</td>
<td>263.113</td>
<td>2401.75</td>
</tr>
<tr>
<td>Net imports (% of GDP)</td>
<td>21</td>
<td>14.62337</td>
<td>5.406817</td>
<td>3.132197</td>
<td>25.27308</td>
</tr>
<tr>
<td>Broad money</td>
<td>21</td>
<td>27.6615</td>
<td>3.57237</td>
<td>22.0997</td>
<td>34.1082</td>
</tr>
<tr>
<td>Domestic credit</td>
<td>21</td>
<td>28.6276</td>
<td>4.337559</td>
<td>21.104</td>
<td>39.2976</td>
</tr>
<tr>
<td>Unemployment</td>
<td>21</td>
<td>6.81338</td>
<td>1.712216</td>
<td>4.565</td>
<td>10.36</td>
</tr>
<tr>
<td>Foreign direct</td>
<td>21</td>
<td>4.67846</td>
<td>2.853345</td>
<td>0.95567</td>
<td>9.51704</td>
</tr>
</tbody>
</table>

Source: Authors computation with Data from World Development Indicators, 2018

Table 1 shows the descriptive statistics of the variables used for the study. It is shown that, the total number of observations is 21 and this covers the period of 1997 to 2017. The Gross Domestic Product per capita has the highest mean value of $1,065.53 whiles the foreign direct investment has the lowest mean value of 4.67846. The average value of net imports into the
country as a percentage of the Gross Domestic Product from 1997-2017 is 14.62 percent. This means that between the same period, the importation into the country exceeds that of the exportation within the same period by 14.623 percent. The financial sector development represented by Broad money supply and Domestic credit have 27.66 and 28.63 on the average. The unemployment rate in Ghana between the study periods is averaged at 6.81338 percent.

The standard deviation of the variables is displayed in Table 4.1 above. With a value of $704.80, GDP per capita has the highest standard deviation. The standard deviation for net imports is 5.4. Domestic credit and Broad money supply have the standard deviations of 4.337 and 3.57 percent respectively.

While the Gross Domestic Product per capita has the highest maximum value of $2,401.75, the foreign direct investment has the lowest maximum value of 9.51704 as a percentage of Gross Domestic Product. This demonstrates that the greatest value of per capita income varies greatly from that of foreign direct investment. The Gross Domestic Product per capita has a minimum value of $263.113 whiles the Domestic credit to the private sector which is one of the proxies for financial sector development has a minimum value of 21.1 percent whiles its maximum value is 39.29 percent. Whiles the minimum value of net import as a percentage of Gross Domestic Product (GDP) is estimated to be 3.13 percent, the maximum value of importation within the same period of study is estimated to be 25.27 percent.
4.3 Correlation Matrix

Table 2: Correlation between GDP per capita, International trade and financial sector development

<table>
<thead>
<tr>
<th></th>
<th>GDP per capita</th>
<th>net imports</th>
<th>Domestic credit</th>
<th>Broad money</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>net imports</td>
<td>-0.7395</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic credit</td>
<td>-0.4364</td>
<td>0.3394</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Broad money</td>
<td>-0.3654</td>
<td>0.3308</td>
<td>0.5732</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Authors computation with Data from World Development Indicators, 2018.

Table 2 shows the correlation between the variables of study. The variables used the correlation regression analysis are GDP per capita, imports as percentage of the GDP, Exports expressed as a percentage of the GDP (international trade), Broad Money supply and Domestic credit to the private sector which also shows financial sector development.

It can be shown from table 4.2 that there exists an inverse correlation between net importation and the Gross Domestic Product per capita. This implies that an rise in imports into the country will reduce the Gross Domestic Product rate by 73.94%. The correlation co-efficient between the importation and the Gross Domestic Product of the country is (-0.7395). This observation contradicts that of Yucel (2009) Who noted a positive association between international trade and economic growth in Turkey. This observation of the impact of importation on GDP could be through because, most developing countries have weak financial system that tends to the affect the level of importation on the international market. This tends to weaken the level of trade balance, resulting in a negative trade impact on economic growth.
Table two as well, demonstrates the inverse relationship between the level of the supply of Broad Money and the per capita GDP. The correlation co-efficient is shown by (-0.3654). The level of financial development marked as broad money supply has a negative impact on the per capita GDP level. This shows that, a unit increase in the broad money supply leads to a 36.54 percent reduction in the level of GDP per capita. The observations in table 4.2 shows contradicts Asghar and Hussain (2014) on financial development, trade openness and economic growth in developing countries using evidence from Panel data. Whiles their study showed a positive impact of financial development on economic growth, our observations rather showed an inverse relationship between financial sector development and the level of economic growth. This could be due to the low level of financial sector development in the country as compared highly regulated financial markets in the developed countries.

Finally, the level of domestic credit to the private sector within the country also have an inverse relationship with the level of economic growth in the country. This is shown in table 4.2 by the correlation co-efficient of (-0.4364). This implies that a unit rise in the level of domestic credit in relation to the private sector decreases the per capita GDP level by (0.4364). Credit to the domestic sector has not been adequate in Ghana and therefore its contribution to the national income has been insignificant. This is because of the country's high level of non-performing loans (NPLs). This research validates the study by Wang, Li, Abdou and Ntim (2015) who found a negative relationship between financial development and the level of economic growth in China.

The level of financial sector development from table 2 shows a positive relationship between the level financial sector development and that of international trade. Table 4.2 describes how the advancement of the financial sector level has a positive effect on international trade by 0.65. This shows that, The unit level shift in the supply of broad money has a positive effect
on the import rate by 65%. This observation confirmed the study by Sajo and Li (2017) who confirmed a positive relationship between export and financial sector development in Nigeria.

**4.4 Ordinary Least Squared (OLS) estimation results**

Table 3: Ordinary Least Squared (OLS) estimation of variables

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>lgp</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnet imports</td>
<td>-0.741***</td>
</tr>
<tr>
<td></td>
<td>(0.187)</td>
</tr>
<tr>
<td>lbroad_money</td>
<td>-1.027</td>
</tr>
<tr>
<td></td>
<td>(0.857)</td>
</tr>
<tr>
<td>ldom_credit</td>
<td>0.729</td>
</tr>
<tr>
<td></td>
<td>(1.024)</td>
</tr>
<tr>
<td>lunemployment</td>
<td>-1.523**</td>
</tr>
<tr>
<td></td>
<td>(0.587)</td>
</tr>
<tr>
<td>lfdi</td>
<td>0.387**</td>
</tr>
<tr>
<td></td>
<td>(0.146)</td>
</tr>
<tr>
<td>Constant</td>
<td>11.97***</td>
</tr>
<tr>
<td></td>
<td>(1.998)</td>
</tr>
</tbody>
</table>

Observations 21
R-squared 0.888

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Authors computation with Data from World Development Indicators, 2018.
Table 3 shows the Ordinary Least Square estimation of the natural log of the variables for empirical estimation. The empirical estimation of the model demonstrates the association between the interest variables in the research.

An $r^2$-squared of 0.888 means that 88.8 percent of the variation in the log of GDP can be explained by net imports, broad money, domestic credit, unemployment and Foreign direct investment.

**Net Import**

It can be seen from Table 3 that there exists an inverse link between net importation and the country’s level of economic growth. However, it is statistically significant at 1 percent. Importation is always known to have an inverse relationship with the economy’s growth. The research observation confirms the results from other research and it is statistically significant. This means that, importation largely affects the level of economic growth. This empirical observation contradicts that of Lee (1995) who observed a positive relationship between the importation of capital goods and the long run economic growth of goods and services using a cross country evidence.

**Broad Money**

Broad money supplies from the study showed an inverse relationship with economic growth. This is however statistically insignificant. Table 3 showed that broad money supply does not any influence the level of economic growth in the country. This may be due to the fact that broad money supply (financial sector development) in Ghana have been faced with many
challenges that reduces its potential to influence economic growth in the country. Wang, Li, Abdou and Ntim (2015) in their study confirmed this result with a generalization that financial development in China has a negative effect on economic growth more specifically on the growth of the tertiary sector.

**Domestic credit to the private sector**

Domestic credit to the private sector is shown to have a positive relationship with the country's economic growth levels. This means that as the private sector keeps on getting more access to credit, there is a potential for them to make an impact on the country's level of economic growth. “A percentage change in the domestic credit to the private sector influences the level of economic growth by 0.729%. This is however not statistically significant even though it has a positive relationship with the level of economic growth”. The outcomes observed in this research confirms the studies by Beck & Demirguc-Kunt (2006) who found a positive relationship between SMEs access to credit and economic growth.

**Unemployment**

Unemployment in most literature shows an inverse relationship with economic growth. Table 3 showed that a percentage change in the unemployment rate in the country have -1.523% change in the level of economic growth. This is statistically significant at 5% meaning that unemployment to a large extent influences the level of Ghana’s economic development. Kenny (2019) in his study confirmed an inverse relationship between unemployment and the level of economic growth in Nigeria from 1981-2016 and the World Development Indicators as the source for the data.
Foreign Direct Investment

Foreign Direct Investment is a significant contributor to economic growth. Table three highlights the existence of a positive relationship between foreign direct investment and economic growth. The study showed that, a percentage change in foreign direct investment (FDI) affects economic growth positively by 0.387 percent. Makiela & Ouattara (2018) confirmed a positive relationship between foreign direct investment and economic growth in the country.

4.5 Robustness Tests

4.5.1 Heteroscedasticity Test

Heteroscedasticity occurs when the error variance has non-constant variance. The variance of the observed value of the dependent variable around the regression line is non-constant. To check if the OLS estimates have a homoscedasticity problem, the Breusch Pagan test is used. It tests whether the estimated variance of the residuals from a regression are dependent on the values of the independent variables. The null hypothesis is that homoscedasticity is present.

Table 4 Breusch-Pagan / Cook-Weisberg test for heteroscedasticity

<table>
<thead>
<tr>
<th>Breusch-Pagan / Cook-Weisberg test for heteroscedasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho: Constant variance</td>
</tr>
<tr>
<td>Variables: fitted values of lgdp</td>
</tr>
<tr>
<td>chi2(1) = 1.58</td>
</tr>
<tr>
<td>Prob &gt; chi2 = 0.2088</td>
</tr>
</tbody>
</table>

Source: Authors computation with Data from World Development Indicators, 2018
Table 4 displays the results of the heteroscedasticity test. The p-value of 0.2088 means that the null hypothesis of homoscedasticity is not rejected. It can therefore be concluded that the model does not suffer from homoscedasticity.

### 5.2 Serial/Auto Correlation Test

“Autocorrelation is a mathematical representation of the degree of similarity between a given time series and a lagged version of itself over successive time intervals. It is the same as calculating the correlation between two different time series, except autocorrelation uses the same time series twice: once in its original form and once lagged one or more time periods” Sokal & Oden (1978). This study uses the Durbin-Watson check for autocorrelation. The null hypothesis of this test is “no auto correlation.

Table 5 Durbin Watson Auto correlation test

<table>
<thead>
<tr>
<th>Ho: No auto correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durbin-Watson d-statistic( 6, 21) = 1.339446</td>
</tr>
<tr>
<td>DL= 0.95</td>
</tr>
<tr>
<td>DL=1.89</td>
</tr>
</tbody>
</table>

Source: Authors computation with Data from World Development Indicators, 2018

Since the Durbin Watson statistic (d-1.339) falls between the upper and lower limits, the null hypothesis of no auto correlation cannot be rejected. Hence the model is free of serial correlation.
4.5.3 Normality Test

The study adopts the skewness/kurtosis test to check for normality test for normality of error terms and skewness. The decision rule is that if the chi square number is greater than 5.99 at the 5 percent significance level, then there is a problem.

Table 6 Skewness/Kurtosis tests for Normality

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Pr(Skewness)</th>
<th>Pr(Kurtosis)</th>
<th>adj chi2(2)</th>
<th>Prob&gt;chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>res</td>
<td>21</td>
<td>0.6677</td>
<td>0.9528</td>
<td>0.19</td>
<td>0.9104</td>
</tr>
</tbody>
</table>

Source: Authors computation with Data from World Development Indicators, 2018

From table since, it is seen that the chi square values are less than one. This means that are normally distributed and the model can be used.

4.5 Summary

The focus of this chapter is to analyze both the data and the results in the discussion. The study made use of the variables GDP per capita, unemployment, broad money supply, domestic credit to the private sector, importation, export and foreign direct investment. The study results showed negative correlation between international trade variables and economic growth. It however displayed a positive relationship between financial sector development and international trade.
CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

5.1. Summary

The study covers the period of 1997 to 2017 using Ghana as a case in point. The study empirically estimates the relationship between financial development and economic growth as well as the relationship between international trade and economic growth. While the minimum foreign direct investment has the lowest value among all the variables, the GDP per capita income has the highest value among the values.

The variables used the correlation regression analysis are GDP per capita, net imports as percentage of the GDP, Broad Money supply and Domestic credit to the private sector which also shows financial sector development. There exists an inverse correlation between net importation and the Gross Domestic Product per capita. This means that an increase in importation into the country reduces the level of Gross Domestic Product by 78.14 percent. The correlation co-efficient between the importation and the Gross Domestic Product of the country is a negative one.

There exists an inverse relationship between net importation and the level of economic growth in the country. This is statistically significant at 1 percent. Importation is always known to have a negative relationship with economic growth. Broad money supplies from the study showed an inverse relationship with economic growth. This is however statistically insignificant. The study showed that broad money supply does not any influence the level of economic growth in the country. This may be due to the fact that broad money supply (financial sector development)
in Ghana have been faced with many challenges that reduces its potential to the influence economic growth in the country.

Domestic credit to the private sector is shown to have a positive relationship with the level of economic growth in the country. This means that as the private sector keeps on getting more access to credit, there is a potential for them to influence the level of economic growth in the country. The results showed that there exists a positive relationship between foreign direct investment and economic growth. The study showed that, a percentage change in foreign direct investment (FDI) affects economic growth positively.

5.2 Conclusion

The study made use of the variables GDP per capita, unemployment, broad money supply, domestic credit to the private sector, net imports and foreign direct investment. The study results showed negative correlation between international trade variables and economic growth. It however displayed a positive relationship between financial sector development and international trade.

5.3 Policy Recommendations

The following policy recommendations are outlined to ensure an effective relationship between international trade, financial sector development and economic growth.

First, import substitution industrialization: it is recommended that there is a proactive measure towards the introduction of industrialization strategy in the country to ensure a continuous advancement towards the production of goods and services that are usually imported into the country. Import substitution will ensure that, goods that are imported are reduced to the barest minimum to ensure that the country is able to rely on domestically produced goods to feed the citizens in the country. The concept of import substitution also seeks to pave way for entrepreneurs in the country to ensure they produce to feed the foreign market.
Also, export promotion: the promotion of exportation and its financing strategies have a significant impact on the level of economic growth. The government should concentrate on export promotion policies through funding and subsidies for private firms seeking to promote export. Government strategy of promoting planting for export and rural development is one of such laudable projects that can cause economic growth. The ability of the private individuals to take advantage of the exportation venture could boost economic growth and development.

Not only this but also, financial sector development: The development of the financial sector through a regulated financial sector stands the chance to boost its impact on economic growth. The financial sector when vibrant can afford to offer credit to the numerous entrepreneurship programme in the country that would propel productivity and economic growth. The development of the financial sector also has the potential to attract investors into the country to boost production.

Moreover, Unemployment reducing strategies: Reducing unemployment is considered as one of the prominent strategies to ensure economic growth since there will be more productive hands in the economy. Government can engage in entrepreneurship that seeks to position students into creating their own employment avenues rather than relying on non-existent jobs. This will help to boost productivity in the country without affecting the level of economic growth negatively. This will ensure that, people will become more creative to ensure that productivity increases in the economy.

Finally, attraction of foreign direct investment: Government can institute measures that seeks to attract foreign direct investment into the productive sectors of the Ghanaian economy. Foreign direct investment has the potential to boost economic growth compared to foreign aid since direct investment yield more positive results. Government can engage in tax holidays for
the citizens and also ensure that, investors are given some incentives to enable them produce on a large scale. This will improve the level of production and economic growth in the country.
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