SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

EFFECTS OF FINANCIAL SECTOR REFORMS ON ECONOMIC GROWTH: DIGITAL TRANSFORMATION OF GHANA'S BANKING INDUSTRY THROUGH THIRD GENERATION FINANCIAL SECTOR REFORMS.

By Steve Antwi-Bosiako

2022

DECLARATION

I hereby declare that this dissertation titled **"Effects of Financial Sector Reforms on Economic Growth: Digital Transformation of Ghana's Banking Industry Through Third Generation Financial Sector Reforms"** is the result of my own original research submitted for the award Doctor of Philosophy in Finance and Economics Degree at Selinus University of Sciences and Literature, Faculty of Business and Media; and that no part of it has been presented for another degree in this university or elsewhere.

I hereby declare that this thesis is entirely my own work, done under the guidance of my general supervisor. The data used in this thesis were collected between 4th May 2022 and 20th May 2022 in Kumasi Metropolis, Ghana. I conducted the field work personally and therefore; I bear sole responsibility for any shortcomings.

I hereby attest that the work reported therein has been carried out by me and each contribution to this thesis from the works of other authors has been accurately paraphrased, cited, and all sources of information that have been used to fulfil the requirements of this thesis have been fully acknowledged in accordance with the standard referencing practices.

Date: 10th July 2022

Student Name: Steve Antwi-Bosiako

Student Signature: 

Student Registration No. UNISE1851IT

ABSTRACT

Concerns about persistent and consistent trends of financial sector reforms without a success are escalating and unbearable. This study examines the relationship between financial sector reforms and economic growth. The general objective is to analyse the effects of third generation financial sector reforms in the banking industry on economic growth to produce new knowledge for improving economic growth of Ghana, using a quasi-experimental design, a scientific and quantitative methods. The study uses both primary data and secondary data. Survey and observation methods are used to collect primary data, whiles documents and records review method are used to collect secondary data. A field survey was conducted through the dissemination of survey questionnaires to a sample size of 132 respondents selected using a stratified and purposive sampling techniques from employees and customers of three universal banks (Ecobank Ghana Limited, GCB Bank Limited, and Absa Bank Ghana Limited) in Kumasi Metropolis, Ghana, and a follow-up field observation of participants in their natural environment. This study integrates an analytical framework with a synthesis of secondary financial data and primary numerical data in order to address the research questions. The study employs descriptive and correlation frameworks of analysis. Data analysis techniques are multiple linear regression, Pearson correlation analysis, descriptive statistics, and trend analysis. The study uses SPSS and Excel to process data and produce output. Based on an in-depth analysis consistent with peer-reviewed literature, this study finds that the commitment of the Ghanaian government and the Bank of Ghana to a comprehensive third generation financial sector reforms have begun to bear fruits and yielding positive useful results. The findings also indicate that the third generation financial sector reforms have accelerated economic growth of Ghana through digital transformation of the banking industry with digitized financial services which manifest a high level of technological sophistication and these have restored confidence in the banking industry. The study also finds that, in line with a priori expectations, regression results indicate that bank credit to private sector has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level; savings mobilization has a positive and significant effect on economic growth with a p-value of 0.001 at 0.05 significance level; financial inclusion has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level; technological capacity development has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level; human development has a positive and significant effect on economic growth with a p-value of 0.009 at 0.05 significance level; investment has a positive and significant effect on economic growth with a p-value of 0.010 at 0.05 significance level; productivity growth has a positive and significant effect on economic growth with a p-value of 0.003 at 0.05 significance level; interest rate reduction has a positive and significant effect on economic growth with a p-value of 0.016 at 0.05 significance level; and capital accumulation has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level. This implies that the effects of financial sector reforms translate to increase Ghana's economic growth through technological capacity development; bank credit to private sector; financial inclusion; savings mobilization; productivity growth; investment; human development; capital accumulation and interest rate reduction, and their relationship is direct and linear. This study also shows that although Ghana has chalked some significant success in financial sector reforms, some major impediments still remain, and a lot more remained to be done to deepen and broaden the financial system. At the macro-level, access to finance; credit allocation to the private sector; and credit allocation to agricultural, industry and services sectors have been curtailed after the third generation financial sector reforms. This implies that they impede the full potential of the financial sector reforms' contribution to economic growth. The study concludes that financial sector reforms have growth-stimulating effect on Ghana. The study recommends the importance of pursuing financial sector reforms that emphasise quality rather than quantity to promote economic growth of Ghana.

ACKNOWLEDGEMENT

First, my greatest regards to the Almighty God who gave me the grace, ability and strength to embark upon and bestowing upon me the courage to face the complexities of life and complete this thesis successfully. I would like to thank my supervisor Prof. Salvatore Fava for his encouragement and guidance in producing this thesis.

I deem it my proud privilege to have undertaken this research under the inspiring guidance and expert supervision of my supervisor. Without his presence, this thesis would not have seen the light of day. I am appreciative to Prof. Salvatore Fava for his kind support, insights and enlightens. Prof. Salvatore Fava greatly broadened my worldview and reignited a thirst for knowledge. My acknowledgements also go to Dr. Adriana Nifosi and Elvira Di Mauro for their suggestions and clarifications. I am forever grateful to Elvira Di Mauro. I am also appreciative to all survey and observation participants (the universal banks' customers, Chief Operating Officers and Chief Finance Officers; Head of Human Resources and HR Advisors, Branch Managers, Credit Officers, and Tellers) who took time out of their busy schedules to participate in this research. Their responses and feedbacks were greater than expected, without which this thesis could not be produced in its current form. Lastly, but most importantly, I wish to extend my sincere thanks and appreciation to my family. I am grateful to my mother and father for giving me the life I ever dreamt. The constant inspiration and guidance kept me focused and motivated. The invariable love and support of sister Jestina, Asantewaa and Osei is earnestly accredited. They were the pillars of my strength throughout the tough days. I owe the overall success of my life to all my family members who prayed continuously to God for my success. Their prayers are the most precious thing that I have ever had. May God Almighty bless you all with happiness; abundant prosperity; good health; and with internal peace. I would like to thank my partner for her love, patience, endless supply of hugs and belief in me.

DEDICATION

I dedicate this study to all the people and industries striving to make Kumasi Metropolis, Ghana a better place to live, visit and do business, and to our children, their children and their children's children.

TABLE OF CONTENT

DECLARATION.......... i
ABSTRACT ii
ACKNOWLEDGEMENT.......... iv
DEDICATION.......... v
TABLE OF CONTENT.......... vi
LIST OF TABLES.......... xiii
LIST OF FIGURES.......... xv
CHAPTER ONE: INTRODUCTION 1
1.1 Chapter Overview 1
1.2 Background of the Study 1
1.3 Rationale for the Study 5
1.4 Statement of the Problem 13
1.5 Objectives of the Study 16
1.5.1 General Objective 16
1.5.2 Specific Objectives 16
1.6 Research Questions.......... 16
1.7 Statement of Hypothesis.......... 17
1.8 Scope of the Study.......... 18
1.9 Limitations of the Study 18
1.10.Significance and Contributions of the Study.......... 19
1.11 Organization of the Study.......... 21
CHAPTER TWO: LITERATURE REVIEW.......... 22
2.1 Introduction 22
2.2 Major Concepts.......... 22
2.2.1 Financial Sector Reforms Concept.......... 22
2.2.1.1 Financial Sector Reforms Defined 22
2.2.1.2 Purpose of Financial Sector Reforms 23
2.2.1.3 Goal of Financial Sector Reforms 23
2.2.1.4 Aim of Financial Sector Reforms.......... 23
2.2.1.5 Objectives of Financial Sector Reforms.......... 23
2.2.1.6 Types of Financial Sector Reforms 24
2.2.1.6.1 Interest Rate Liberalization 24
2.2.1.6.2 Credit Allocation Liberalization.......... 24
2.2.1.6.3. New Entry into Banking Sector or Financial Markets 25

2.2.1.6.4. Privatization of State-owned Banks … 25
2.2.1.6.5 Prudential Regulation and Supervision 25
2.2.1.7 Historical Antecedents of Financial Sector Reforms in Ghana 26
2.2.1.8 Evolution of financial sector Reforms in Ghana 28
2.2.1.8.1 First Generation Financial Sector Reforms 1987 - 2000 28
2.2.1.8.2 Second Generation Financial Sector Reforms 2001-2016 29
2.2.1.8.3 Third Generation Financial Sector Reforms 2017-2019 30
2.2.1.8.4 Trends of Major Financial Sector Reforms in Ghana 31
2.2.2 Economic Growth Concept 33
2.2.2.1 Economic Growth Defined 33
2.2.2.2 Measurement of Economic Growth 33
2.2.2.3 Sources of Economic Growth 36
2.2.2.4 Importance of Economic Growth 37
2.2.2.5 The Role of Government in Economic Growth 37
2.2.2.6 The Social Cost of Economic Growth 38
2.3 Interrelationships of Major Concepts 39
2.3.1 Overview of the Financial Sector of Ghana 39
2.3.1.1 Financial Markets 42
2.3.1.2 Financial Institutions 43
2.3.1.2.1 Overview of the Banking Industry in Ghana 43
2.3.1.2.2 Categories of Banking Licenses 46
2.3.1.2.3 Universal Banks in Ghana as at June 2020 48
2.3.2 Financial System 49
2.3.2.1 Financial System Defined 49
2.3.2.2 Financial Intermediation and Credit Creation in the Financial System.... 49
2.3.2.3 Flow of Funds in Ghana’s Financial System 50
2.3.2.4 Functions of Financial System 52
2.3.3 Financial Development 54
2.3.3.1 Financial Development Defined 54
2.4 Empirical Studies on Relationship Between Financial Sector Reforms and Economic Growth 56
2.6 Review of Related Theories 63
2.6.1 Financial Liberalization Theory 63
2.6.2 Economic Growth Theories 65
2.6.2.1 Rostow’s Five Stages of Economic Growth 65

2.6.2.2 Neo-Classical Theory of Growth 67
2.5 Conceptual Framework of the Study 68
2.5.1 Schema of Conceptual Framework 68
2.5.2 Narrative of Conceptual Framework 69
CHAPTER 3: RESEARCH METHODOLOGY 71
3.1 Introduction 71
3.2 Research Design 71
3.2.1 Quasi-Experimental Design 71
3.2.2 Research Method 73
3.2.2.1 Scientific Method 73
3.2.2.2 Quantitative Method 75
3.2.3 Research Approach 76
3.2.3.1 Deductive Approach 76
3.3 Data Types and Sources 78
3.3.3 Cross-Sectional Data 79
3.4 Study Area 80
3.4.1 General Statistics of the Study Area 80
3.4.2 Service Sector in Kumasi Metropolis, Ghana 82
3.4.3 Industrial Sector in Kumasi Metropolis, Ghana 82
3.4.4 Agricultural Sector in Kumasi Metropolis, Ghana 85
3.4.5 Justification for Conducting the Study in Kumasi Metropolis 86
3.5 Choice of Sample 87
3.5.1 Population (s) 87
3.5.2 Sampling Frame 88
3.5.3 Sample Size Determination 89
3.5.4 Sampling Techniques 90
3.6 Instrumentation 92
3.7 Pilot Study 93
3.8 Data Collection 94
3.8.1 Data collection Method 94
3.8.1.1 Data Collection Method # 1: Survey Method 94
3.8.1.1.1 Types of Survey Conducted 95
3.8.1.1.2 Self-Administered Paper and Hand-Delivered Survey 95
3.8.1.1.3 Cross-Sectional Survey 96
3.8.1.1.4 Survey Response Rate 97

3.8.1.2 Data Collection Method # 2: Observation Method 98
3.8.1.2.1 Types of Observation Conducted 99
3.8.1.2.2 Quasi-Participant Observation 100
3.8.1.3 Data Collection Method # 3: Documents and Records Review 101
3.9 Data Processing 102
3.9.1 Electronic Data Processing 102
3.10 Data Analysis 103
3.10.1 Data Analysis Matrix 103
3.10.2 Control Variables 104
3.10.3 Model Specification 105
3.10.4 A Priori Expectations 106
3.10.5 Measurement of Variables: Measurement Scale; Variable Type 107
3.10.6 Pearson correlation coefficient. 108
3.11 Data Description 109
3.12 Profile of Sampled Respondents 111
CHAPTER FOUR: STATE OF THE THIRD GENERATION FINANCIAL SECTOR REFORMS AND ECONOMIC GROWTH IN GHANA. 116
4.1 Introduction 116
4.2 State of the Third Generation Financial Sector Reforms 116
4.2.1 Digital Transformation in the Banking Industry 118
4.2.2 Trend of Comparative Digital Payment Transactions Statistics 2017-2019 119
4.2.3 Mobile Money Interoperability (MMI) Usage 120
4.2.4 Mobile Money Services Usage 121
4.2.5 E-Zwich Usage 122
4.2.6 Gh-Link Usage 123
4.2.7 GhIPSS Instant Pay (GIP) Usage 123
4.2.8 Automated Teller Machine (ATM) Usage 124
4.2.9 Ghana Inter-bank Settlement System (GIS) Usage 125
4.2.10 Automatic Clearing Houses (ACHs): ACH Direct Credit Transactions 125
4.2.11 Automatic Clearing Houses (ACHs): ACH Direct Debit Transactions . 126
4.2.12 Cheque Codeline Clearing Usage 126
4.2.13 Ghana Universal Quick Response Code (GhQR Code) Usage 127
4.2.14 Debit Cards; Credit Cards; and Prepaid Cards Usage 127
4.2.15 Online/Internet Banking Usage 128

4.2.16 Mobile Banking Usage 130
4.3 Survey Responses on the State of Financial Sector Reforms 131
4.4 State of Economic Growth in Ghana (Ghana's Real GDP Growth) 140
4.4.1 Trend of Ghana's Economic Growth (Real GDP Growth) 140
4.4.2 Sectoral Contribution to Ghana's Real GDP Growth 2017-2019 142
4.4.2.1 Contribution of Agriculture Sector to Ghana's Real GDP Growth 143
4.4.2.2 Contribution of Industry Sector to Ghana's Real GDP Growth 143
4.4.2.3 Contribution of Services Sector to Ghana's Real GDP Growth 143
4.4.3 Macroeconomic Environment 145
4.4.3.1 Exchange Rate of Ghana Cedi (GH¢) Against Major Currencies 145
4.4.3.2 Exchange Rate of Ghana Cedi (GH¢) Against United States Dollar 146
4.4.3.3 Exchange Rate of Ghana Cedi (GH¢) Against Great Britain Pound 146
4.4.3.4 Exchange Rate of Ghana Cedi (GH¢) Against Europe Euro (EURO) ... 147
4.4.3.5 Interest Rate in Ghana 148
4.4.3.6 The Monetary Policy Rate 148
4.4.3.7 The Average Lending Rate 148
4.4.3.8 The 3-Month Average Deposit Rate 148
4.4.3.9 Inflation Rate (Consumer Price Index (CPI) in Kumasi Metropolis 150
4.4.3.10 The Overall Inflation Rate 150
4.2.2.3.11 The Food Inflation Rate 150
4.2.2.3.12 The Non-Food Inflation Rate 151
4.5 Survey Responses on the State of Economic Growth 152
CHAPTER FIVE: EFFECTS OF FINANCIAL SECTOR REFORMS ON ECONOMIC GROWTH OF GHANA. 156
5.1 Introduction: 156
5.2 Regression Diagnostics Tests for Multiple Linear Regression Assumptions 156
5.2.1 Sample Size Assumption: 157
5.2.2 Variable Type Assumption: 157
5.2.3 Linearity Assumption: 157
5.2.4 Normality Assumption: 159
5.2.5 Homoscedasticity Assumption: 161
5.2.6 Autocorrelation or Independent Residuals Errors Assumption: 161
5.2.7 Absence of Multicollinearity Assumption: 163

5.3 Summary Statistics of Dependent and Independent Variables.....................165
5.4 Pearson Correlation Matrix 167
5.5 ANOVA Results and Hypothesis Testing for Significance of Independent Variables..170
5.5.1 Test of Significance of Bank Credit to Private Sector (X1). 171
5.5.2 Test of Significance of Savings Mobilization (X2)..................................171
5.5.3 Test of Significance of Financial Inclusion (X3) 171
5.5.4 Test of Significance of Technological Capacity Development (X4) 172
5.5.5 Test of Significance of Human Development (X5)..................................172
5.5.6 Test of Significance of Investment (X6) 173
5.5.7 Test of Significance of Productivity Growth (X7)...................................173
5.5.8 Test of Significance of Interest Rate Reduction (X8) 174
5.5.9 Test of Significance of Capital Accumulation (X9).................................174
5.6 Multiple Linear Regression Model Summary 176
5.6.1 Interpretation of the Multiple Linear Regression Model Summary 176
5.7 Regression Coefficients..181
5.7.1 Interpretation of the Multiple Linear Regression Coefficients Table........182
5.8 Reliability and Validity of the Study..188
5.8.1 Internal and External Validity 188
5.8.2 Reliability of the Regression Model...189
5.8.3 Reliability of the Survey..190
CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS & RECOMMENDATIONS...191
6.1 Introduction 191
6.2 Summary of Findings 191
6.3 Conclusions 193
6.4 Recommendations 195
6.5 Areas for Further Research 196
REFERENCES 197
APPENDICES 207
APPENDICE A: Instrument # 1: Observation Checklist 207
APPENDICE B: Instrument # 2: Survey Questionnaire 211

LIST OF TABLES

Table 2.1 Trends of Major Financial Sector Reforms in Ghana 31

Table 2.2 Universal Banks in Ghana as at June 2020 48

Table 3.1 Data Analysis Matrix 103

Table 3.2 Measurement of Variables: Measurement Scale; Variable Type 107

Table 4.1 Trend of Comparative Digital Payment Transactions Statistics 2017-2019 119

Table 4.2 Gender of Respondents... 131

Table 4.3 Ages of Respondents 131

Table 4.4 Descriptive Statistics of Ages of Respondents 132

Table 4.5 Trend of Ghana's Economic Growth (Real GDP Growth)................ 140

Table 4.6 Trend of Sectoral Contribution to Ghana's Real GDP Growth 142

Table 4.7 Exchange Rate of Ghana Cedi (GH¢) Against Major Currencies 146

Table 4.8 Interest Rate in Ghana 2017-2019.. 148

Table 4.9 Trend of Inflation Rate (Consumer Price Index (CPI) in Ghana 2017-2019 150

Table 5.1 Variance Inflation Factor (VIF), and Tolerance Check for Multicollinearity 164

Table 5.2 Summary Statistics of Dependent and Independent Variables 165

Table 5.3 Pearson Correlation Matrix 167

Table 5.4 ANOVA Results for Hypothesis Testing for Significance of Independent Variables 170

Table 5.5 Summary of Accepted/Rejected Hypothesis 175

Table 5.6 Multiple Linear Regression Model Summary 176

Table 5.7 Interpretation of Multiple Linear Regress Model Summary 180

Table 5.8 Regression Coefficients 181

Table 5.9 Interpretation of Multiple Linear Regression Coefficient 185

Table 5.10 Statistically Significant and Sign of Coefficient of Independent Variables 186

Table 5.11 Reliability Statistics of Regression Model 189

Table 5.12 Pilot Study Reliability Statistics 190

Table 5.13 Actual Survey Reliability Statistics 190

LIST OF FIGURES

Figure 1.1 Statement of Hypothesis 17

Figure 2.1 Quarterly Real GDP Growth Rate (2018Q1-2020Q1) 34

Figure 2.2 Sectoral Distribution (%) of Nominal GDP at Basic Prices 35

Figure 2.3 Structure of the Financial Sector in Ghana 41

Figure 2.4 Structure of the Banking Industry in Ghana 47

Figure 2.5 Lending and Borrowing If No Financial Intermediation Takes Place 50

Figure 2.6 Lending and Borrowing If Financial Intermediation Does Take Place 50

Figure 2.7 Flow of Funds in Ghana's Financial System 51

Figure 2.8 Financial System and GDP Per Capita Growth 53

Figure 2.9 Summary Interrelationships of Major Concepts 55

Figure 2.10 Rostow's Five Stages of Economic Growth Theory 66

Figure 2.11 Schematic Diagram of the Conceptual Framework 68

Figure 3.1 Steps in the Scientific Method. 74

Figure 3.2 Steps in Deductive Approach 77

Figure 3.3 Study Area: Map of Kumasi Metropolitan Area with its Sub-metropolitan divisions. 80

Figure 3.4 Ahinsan Industrial Area in Kumasi 83

Figure 2.5 Ahwiaa Wood Crafting, Carving and Handmade Souvenirs in Kumasi 84

Figure 2.6 Cocoa Trees, Cocoa Fruits and Beans in Kumasi Metropolis, Ghana 85

Figure 3.7 Sampling Frame 88

Figure 3.8 Survey Method 94

Figure 3.9 Self-Administered Paper and Hand-Delivered Survey 95

Figure 3.10 Cross-Sectional Survey 96

Figure 3.11 Survey Response Rate 97

Figure 3.12 Observation Method 98
Figure 3.13 Quasi-Participant Observation 100
Figure 3.14 Summary Data Collection Method... 101
Figure 3.15 Summary Data Processing Cycle 102
Figure 3.16 Summary Data Analysis Frameworks and Techniques of Analysis 104
Figure 3.17 A Priori Expectations 106
Figure 3.18 Pearson Correlation Coefficient Analysis Technique 108
Figure 3.19 Profile of GCB Bank Limited 112
Figure 3.20 Profile of Ecobank Ghana Limited 113
Figure 3.21 Profile of Absa Bank Ghana Limited 114
Figure 4.1 Major Components of 3RD Generation Financial Sector Reforms 2017-2019.. 117
Figure 4.2 Digital Transformation in Banking Industry 118
Figure 4.3 Mobile Money Interoperability...120
Figure 4.4 Mobile Money Network Operators (MMNOs) in Kumasi Metropolis, Ghana 121
Figure 4.5 E-zwich 122
Figure 4.6 Gh-Link 123
Figure 4.7 Automated Teller Machine (ATM).. 124
Figure 4.8 Debit Cards; Credit Cards; and Prepaid Cards................................. 128
Figure 4.9 Online/Internet Banking 129
Figure 4.10 Mobile Banking 130
Figure 4.11 Gender of Respondents 131
Figure 4.12 Ages of Respondents... 132
Figure 4.13 Satisfaction with the State of Financial Sector Reforms in Ghana……………………………………………………………………..133

Figure 4.14 Satisfaction with Digital Transformation in the Banking Industry in Ghana 134
Figure 4.15 Satisfaction with Financial Inclusion in Kumasi Metropolis 135
Figure 4.16 The Extent to which Financial Sector Reforms Have Restored Confidence in the Banking Industry in Kumasi Metropolis. 136
Figure 4.17 The Extent to which Financial Sector Reforms Have Improved Savings Mobilization of Banking Industry in Kumasi Metropolis 137
Figure 4.18 The Extent to which Financial Sector Reforms Have Improved Technological Capacity of Banking Industry in Kumasi Metropolis 138
Figure 4.19 The Extent to which the Financial Sector Reforms Have Improved Access to Finance in Kumasi Metropolis 139
Figure 4.20 Ghana's Economic Growth (Real GDP Growth) 2017-2019 141
Figure 4.21 Pie Chart Ghana's Economic Growth (Real GDP Growth) 2017-2019 142
Figure 4.22 Sectoral Contribution to Ghana's Real GDP Growth 2017-2019 ... 144
Figure 4.23 Exchange Rate of Ghana Cedi (GH¢) Against Major Currencies . 145
Figure 4.24 Exchange Rate of Ghana (GH¢) Against Major Currencies 2017-2019 147
Figure 4.25 Interest Rate in Ghana 2017-2019 149
Figure 4.26 Inflation Rate (Consumer Price Index (CPI) in Ghana 2017-2019 . 151
Figure 4.27 Satisfaction with the State of Economic Growth in Ghana 152
Figure 4.28 The Extent to which Financial Sector Reforms Have Increased Economic Growth in Ghana 153
Figure 4.29 The Extent to which the Financial Sector Reforms Have Increased Credit Allocation to the Agriculture, Industry and Services Sectors in the Economy 154
Figure 4.30 The Extent to which the Financial Sector Reforms Have Increased Credit Allocation to the Private Sector in Kumasi Metropolis 155
Figure 5.1 Assumptions of Multiple Linear Regression Analysis Technique ... 156

Figure 5.2 Scatterplot for checking Linearity Assumption 158

Figure 5.3 Scatterplot Matrix for checking Linearity Assumption 158

Figure 5.4 Histogram for checking Normality Assumption 159

Figure 5.5 Normal P-P Plot for checking Normality Assumption 160

Figure 5.6 Normal P-P Plot for checking Normality Assumption 160

Figure 5.7 Scatterplot for checking Homoscedasticity Assumption 161

Figure 5.8 Scatterplot for checking Autocorrelation or Independent Residuals Errors Assumption 162

Figure 5.9 Scatterplot for checking Autocorrelation or Independent Residuals Errors Assumption 162

Figure 5.10 Nomothetic Causal Relationship 187

Figure 5.11 Automatic Linear Modeling 188

CHAPTER ONE: INTRODUCTION

1.1 Chapter Overview

This chapter provides comprehensive introduction to the entire thesis. It opens a case for the essence of the study, setting the tone and scholarly context for the rest of the chapters to follow. This chapter is devoted to background of the study, rationale for the study, statement of the problem, the objectives of the study and the corresponding research questions. Besides, it highlights the statement of hypothesis, scope and limitations of the study, as well as significance and contributions of the study. The chapter concludes with organization of the study.

1.2 Background of the Study

Financial sector reforms have been at the centre of the economic policy debate in lower-middle-income economies, and in Ghana in particular, in the past three decades (Ciapanna et al. 2022). Financial sector reforms are policy measures design to deregulate the financial system and transform its structure with the view to achieving liberalized market-orientd system within an appropriate regulated framework (McKinnon, 1973; Shaw, 1973). Financial sector reforms are changes that are needed in order to establish a modern financial system capable of improving the capacity of financial markets to move a country and to put the economy on higher growth path for accelerated economic growth and development. The importance of financial sector reforms in economic growth has long been discussed and debated. However, financial sector reforms process and their effect on economic growth in Ghana provides better platform to analyse the empirical debate on financial sector reforms-economic growth nexus in the finance-growth nexus literature. The importance of financial sector reforms has generated extensive research on them. This, however, is not the case in Ghana.

Instead, researchers are gradually shifting their focus from studies of traditional financial sector reforms to third general financial sector reforms due to complex, changing industry dynamics and technological innovations in the financial sector, adoption of the international financial reporting standard (IFRS), and implementation of Basel II and III frameworks (Bank of Ghana, 2020). The renewed sense of urgency about creating an efficient financial system through the third generation financial sector reforms favours systemic changes to reorganise the financial system, and to put the economy on higher growth path for accelerated economic growth and development. Consequently, the much-delayed third generation financial sector reforms need a special resolve in delivering efficient financial services to citizens and businesses in the country to elevate economic growth. Most international organizations like the World Bank and the International Monetary Fund (IMF) have advocated the introduction of financial sector reforms policies to augment higher saving, investment and rapid economic growth in Ghana (IMF, 2020; World Bank Group, 2019).

At the global level, the debates and unaligned views on the relationship between financial sector reforms and economic growth remain inconclusive. There are different views about the effects of financial sector reforms on economic growth (Singh, 2005). While it is well-known that financial sector reforms in both banking sector and capital market impact economic growth positively, the belief that financial sector reforms will bring the desired connection between economic growth has not been substantiated (Akinsola & Odhiambo, 2017; Lucas, 1988). For example, Carlin & Mayer (2003) argue that the rate of growth of an economy has a strong relationship with whether the economy is thriving on a bank-based financial system or a market-based financial system. Per Demirguc-Kunt & Levine (1996), both the banking sector and the capital market intermediate savings towards investment projects, and they can be both complements and substitutes for capital mobilisation for economic growth. Schumpeter (1911) suggests a strong and positive link between financial sector development and economic growth. In this regard, Aghion et al. (2005) argued that financial sector development does not only help accelerate growth, it is also particularly beneficial for developing countries to catch up with more advanced economies. Similarly, McKinnon (1973) and Shaw (1973) drew attention to financial liberalization policies in markets and their role in economic growth, while Robinson (1952) argues that finance follows enterprise. Lucas (1988) argues that financial sector development and economic growth are not causally related and that the role of financial sector development in economic growth is overly stressed. Levine (1997) attested to the fact that countries with better developed financial systems experienced faster economic growth than those without it because a well-developed financial system ensures the flow of funds from surplus spending units to deficit spending units in society. Levine (2004) indicates that most of the evidence suggests a positive role for financial intermediaries and markets in economic growth.

At the national, regional and local levels in Ghana, the debates and unaligned views on the relationship between financial sector reforms and economic growth are intense. For example, Owusu & Odhiambo (2015) contend that financial sector reforms have an insignificant impact on economic growth in Ghana. This supports numerous past studies that have reported mixed or inconclusive results on the effects of financial reforms on economic growth. Similarly, Agyekum (2017) argues that the causal relationship and impact of financial sector reforms towards economic growth has not been established in a scholarly manner, especially in Ghana because the transitionary process from financial sector reforms to sustainable economic growth is not expected to occur in a vacuum. However, at the wake of the current banking sector reforms in

Ghana, the role of the financial sector reforms, as a determinant of economic growth, remains largely inconclusive. The main issue is that proponents of financial sector reforms believe that financial sector reforms policy measures have the capacity to increase economic growth of Ghana. However, critics of financial sector reforms argue that financial sector reforms policy measures do not have corresponding increase in economic growth of Ghana. Moreover, the debate on who are better managers of the economy, in terms developments in the financial sector and overall performance of the economy (economic growth), between the governing New Patriotic Party (NPP) and leading opposition National Democratic Congress (NDC), is central to the recent third generation financial sector reforms in Ghana's banking industry over the period of (2017-2019), with the proponents of each political party arguing on the superiority of their development policies in the financial sector and performance in economic growth over each other. For many Ghanaians in Kumasi, this kind of polarized debate has become less than productive because it obscures the fact that financial sector reforms and economic growth are intimately related to each other. The controversy over the government's direct involvement in the financial service provisions, especially to the poor households and the marginalised small businesses, adds to the debates. In addition, the widespread inefficiencies due to political patronage and corruption prevalent in Ghana raise doubts about using market failure as the justification for state intervention (Agyekum, 2017). Development practitioners also based their debate on national concerns over the social cost-benefit of the financial sector reforms in the banking industry and value for money. Researcher, scholars, and reforms minded policymakers argue that the liberalization measures instituted in 1987 as part of the financial sector reforms were not far reaching enough to solve the root causes of Ghanaian financial sector problems because the reforms were not geared towards full liberalization of interest rate policy and institutional rigidities that constrain efficient functioning of the financial markets. These debates, and other issues or events form the background to this study as they support the evidence that there have been increased debates and unaligned views on the relationship between financial sector reforms and economic growth that call for the need of scientific investigation. This study analyses the effects of third generation financial sector reforms in the banking industry on economic growth of Ghana over the period of (2017-2019).

1.3 Rationale for the Study

This section outlines the fundamental reasons the study was conducted.

To begin with, observations of the growing trends of financial sector reforms in Ghana's banking industry over time, without a success was the phenomenon of concern that needs further attention. The research was born out of personal experience of living in a country which has implemented a series of financial sector reform policies since 1987 without a success. Observations and personal experience with the phenomenon can be traced back to 1987, and soon after the Fourth Republic. It was observed that a series of financial sector reforms were implemented in the banking industry, and these trends show that the phenomenon persists. In the last thirty-five years (between 1987 and 2022), the banking industry in Ghana has gone through three major financial sector reforms. These three major financial sector reforms below constitute the trends.

(1) Financial Sector Adjustment Programme (FINSAP) also known as first generation financial sector reforms between 1987 and 2000, this financial sector reform was driven and supported by the Bretton Woods Institutions: The World Bank and the International Monetary Fund (IMF), (IMF, 2020; World Bank Group, 2019), then

(2) Financial Sector Strategic Plan (FINSSP) also known as second generation financial sector reforms between 2001 and 2016, this financial sector reform was largely home grown with significant input from stakeholders, and then,

(3) Financial Sector Sanitization popularly referred to as "banking sector clean-up exercise" also known as third generation financial sector reforms between 2017 and 2019 undertaken by New Patriotic Party (NPP) government under the President Nana Akufo-Addo (see Table 2.1 in chapter 2).

These observations sparked an interest in financial sector reforms and economic growth. It was at that point that the researcher became interested to study financial sector reforms taking place in Ghana. After observing these trends of financial sector reforms, there was an enthusiasm to conduct an impactful, a credible and insightful scientific investigation in this area to ascertain the practical realities on the ground, but it was also not taking any more time than it had to in that process, because the situation was, of course, very severe. It was in the light of these observations that this study seeks to analyse the effects of financial sector reforms in the banking industry on economic growth of Ghana. As a finance and economics student, the obvious research topic that remained appealing in view of its topicality and growing trends was effects of financial sector reforms on economic growth. Having observed a series of financial sector reforms without a success, this study was therefore inspired by enthusiasm to come up with a solution to the current financial sector reforms situation in Ghana. It was also inspired by an eagerness to produce new knowledge that is innovative, unique, relevant, and enlightened on an appropriate financial sector reforms strategy that can significantly contribute to economic growth of Ghana.

It was observed that the widespread financial sector reforms have become a cross-cutting developmental issue worldwide, especially in lower-and middle-income countries (particularly, in Ghana). It is increasingly becoming a strategic factor in the development policy mix which calls for more academic research that can unravel the intricacies involved. There is the growing recognition that financial sector reforms have the potential of making the financial system more efficient which in turn drive economic growth (Levine, 2004). However, it was observed that despite their prospects, very little research has been conducted to analyse the effects of financial sector reforms in the banking industry on economic growth in Ghana. It was observed that concerns about financial sector reforms have set governments around the world to find solutions for banking industry efficiency to support the growth of private sector enterprise, and to accelerate the growth momentum of the economy. However, it was observed that despite these concerns and attempts, a comprehensive study was missing of how financial sector reforms policies and practices function as an integrated whole to produce efficient financial system and financial development to stimulate economic growth. Through extensive field-based research, the researcher has sought to fill this gap just described. This was a concern since there is growing anecdotal evidence that attempts to implement financial sector reforms policies and practices have fallen short in generating efficiency gains and financial development to drive economic growth. This implies that though there is a consensus that the financial sector reforms policies and practices have been a source of value, but the means by which financial sector reforms policies and practices generated value had not been discovered. It was observed that as financial sector reforms become an important component of financial development and a country's strategy for economic growth, this research focusing on financial sector reforms in a lower middle-income country seems fit. Research has shown that financial sector reforms directly affect economic growth but the trajectory of financial sector reforms in the banking industry towards economic growth has not been established in a scholarly manner, especially in Kumasi Metropolis, Ghana. Moreover, the effects of financial sector reforms on economic growth of Ghana have not been empirically ascertained by scholars.

The broad consensus is that Ghana was the first Sub-Sahara African country to formulate a comprehensive financial sector reform in 1987. However, three decades after the financial sector reforms, it was observed that the first and second generations financial sector reforms have had little effect on economic growth, and there were unfulfilled expectations associated with the first and second generations financial sector reforms. The financial sector reforms were largely expected to address all banking industry inefficiencies and improve financial sector resilience to financial shocks, build more robust and efficient financial sector, which can support the growth of private sector enterprise, and to accelerate the growth momentum of the economy towards sustainable economic growth. However, it was observed that these have not been largely addressed as the above trends indicate. Instead, the financial sector reforms have led to a macroeconomic imbalance of high and persistent inflationary pressures, high nominal interest rates, and continuous devaluation of the local currency. It was observed that the financial sector is noted for inefficiency, insolvency and mismanagement. In certain instances, it survived only through government bailout plans and protection. Aside from these issues, it was observed that there are a number of problem areas that need further attention. For instance, despite sundry of financial sector reforms implemented so far in Ghana, the financial system remains cash-based and underdeveloped, and the banking industry has not been able to deliver its core mandate as a driver of economic growth to catch up with the developed economies. Besides, it was observed that Ghana's financial system is not capable of providing adequate financial services to the majority of domestic retail customers, small and medium-sized enterprises and large companies. It was observed that despite the apparent strength of the banking system, the ratio of private sector credit to gross domestic product (GDP) is still low by international standards. However, it was observed that due to the persistent banks failures and inefficient financial services delivery after a series of financial sector reforms without a success, many attempts have been launched by the government and the Bretton Woods Institutions: The World Bank and the International Monetary Fund (IMF) to address the phenomenon. It was observed that some of these attempts were institutional interventions, professional interventions, financial interventions, organisational interventions, structural interventions and regulatory interventions. For example, Ghana received support from the World Bank to strengthen its financial sector and promote financial inclusion. It was observed that the World Bank supported Ghana to launch Ghana financial sector development project in 2018 to enhance the capacity for the implementation and monitoring of financial sector reforms policies, supported the Bank of Ghana and Ministry of Finance to improve the oversight and promote market transparency and discipline, and supported overall project implementation components to promote financial sector soundness and improve access to financial services by individuals in rural communities, specifically women, the poor and farmers, and promote broader development of the financial sector (World Bank Group, 2019). Besides, it was observed that the World Bank and the International Monetary Fund (IMF) supported Ghana to implement Financial Sector Adjustment Programme (FINSAP) in 1987 to develop the financial sector to become efficient and promote economic growth of Ghana (Antwi-Asare & Addison, 2000). Moreover, it was observed that in pursuance of financial of sector reforms objectives, a Security Discount and a Stock Exchange Market were established in 1990 to provide avenues for banks and other financial institutions to manage their liquidity. In the same vein, it was observed that the Securities and Exchange Commission (SEC) has developed a corporate governance code of best practice against which banks can benchmark their practices to improve the efficiency, address inhibitions to competition and upgrade the health and financial soundness of banks so that Ghanaian banks can meet internationally accepted standards of performance. Furthermore, it was observed that to improve the quality of bank personnel, the Institute of Bankers and Chartered Accountants were provided support to enhance the training of personnel to improve efficiency in the delivery of banking services and risk management. Other attempts that were observed include formation of the Institute of Directors in 2001 and the development of Ghana National Accounting Standards. Aside from these attempts, it was observed that there have been some effective attempts aimed at improving the effectiveness of financial sector reforms in banking industry, however, these attempts have not been successful (BoG, 2017). That was why the study was conducted.

It was observed that in spite of all these attempts, the level of financial intermediation in Ghana is low. The efficiency of the banking industry is below expectations, and the financial system has not been able to measure up to optimum financial development as the driver of economic growth (Okoi et al., 2019). The banking industry in Ghana still does not adequately support economic growth. It was observed that in spite of all these attempts, the financial sector remained weak and could not mobilize significant resources to sustain the economic growth, vast segments of the unbanked population are excluded from formal financial services, credit allocation to private sector is low, and the financial sector has remained largely ineffective in mobilizing and channelling savings and investment to more productive ventures to promote economic growth. In addition, it was observed that SMEs lack access to finance, and technological underdevelopment of the banking industry still exists in Ghana. For instance, it was observed that Ghana's financial sector is underdeveloped on various dimensions of financial development such as stability and efficiency characterized by narrow financial system with a dominance of small illiquid banks, which is not equipped to sustain a comprehensive banking sector reform process over a short period (Moyo et al., 2014). Similarly, it was observed that banks in Ghana pass on their inefficiencies to their customers by raising their lending interest rates and lowering their deposit interest rates (Nkegbe & Yazidu, 2015). As a result, the citizenry has lost confidence in the banking industry. Hence, doubt remains whether these financial sector reforms in Ghana would ever result in greater sustainable economic growth to catch up with the advanced economies. However, it was observed that in spite of all these attempts, there were still questions to be answered. That was why the study was conducted. The initial idea of this research began with these remaining questions: (i). Does financial sector reforms affect economic growth, and if it does, how? (ii). How does financial sector reforms affect economic growth of Ghana? (iii). What constitutes financial development? (iv) Does financial development promote economic growth? (v) How does financial development support and spurs economic growth? (v) How do financial systems affect economic growth?

These questions and possibly the answers to them must be appropriate and relevant. However, it was observed that there are no precise answers to the questions. There is also no uniform evidence on the relationship between financial sector reforms and economic growth of Ghana in the existing scientific knowledge. Researchers, however, are still delving into the science behind. A careful enquiry using scientific investigations is likely to unravel the intricacies involved. Hence, an evidence-based and scientifically proven research is necessary. This study is built on national interest, and the belief that government intervention through financial sector reforms in the banking sector can accelerate the rate of economic growth. National concerns over the social cost-benefit of the financial sector reforms in the banking industry also provide the most common rationale for the study. The initial motivation for conducting this research was the current enabling environment, the business climate and general economic situation in Ghana. Above all, this study was conducted with purpose and intent. There were practical, scientific, and academic reasons for conducting this research. The practical reason for conducting this study was to address some of the concerns brought up in line with the financial sector reforms in the banking industry. The scientific reason for conducting this study was to produce new knowledge in the scientific community that contribute to sustainable economic growth and financial development and place them in the wider context of the literature. However, in the considered view of the author, research on financial sector reforms in Ghana, on a scale and depth as covered in this study, is yet to be sighted. What sets this study apart is a depth of coverage that strategically links financial sector reforms to economic growth. This research provides very useful insights. The study's ingenuity stems from it being the first ever comprehensive study applying robust design, methods and techniques to analyse the effects of financial sector reforms in the banking industry on economic growth.

The academic reason for conducting this study was to fill gaps in the scientific knowledge. Hence, the main reason for choosing the research topic was gaps in the scientific knowledge. This study was started with a focus on empirical and methodological gaps in the scientific knowledge in mind. These gaps (see statement of the problem) and other issues or concerns provide an interesting rationale for conducting scientific research on these topical issues. This remains the basis of this content. This study analyses the effects of third generation financial sector reforms in the banking industry on economic growth of Ghana over the period of (2017-2019).

1.4 Statement of the Problem

There are persistent and consistent empirical and methodological gaps exist in the scientific knowledge. All of this is partly because virtually limited existing research gives a voice to recent third generation Financial Sector Reforms and Economic Growth, but the precise nature or state of the third generation financial sector reforms is not known or well understood. There are also gaps in scientific knowledge when it comes to whether there are particular intrinsic and extrinsic factors that drive the effects of financial sector reforms on economic growth of Ghana. There is a lacuna in the scientific knowledge because the study is under research topic in the literature.

Following the inception of the third generation financial sector reforms, virtually no comprehensive study has been conducted on how third generation financial sector reforms policies and practices function as an integrated whole to produce efficient financial system and financial development to stimulate economic growth of Ghana that addresses the four main themes of this thesis, namely; financial sector reforms, economic growth, efficient financial system, and financial development. Whereas studies of third generation financial sector reforms have focused mainly on analysing the effects of a well-developed financial system (Levine, 2006), little has been done to seek to analyse the effects of the said financial sector reforms on economic growth in Ghana. This is not to suggest a complete nonexistence of studies focusing on some aspects of the subject matter. However, most of these studies have concentrated on the banking sectors of the Western and developed countries rather than Ghana. On the other hand, empirical evidence on the lower middle-income countries in particular, studies on Ghana are relatively scarce and the majority of these studies focus on the FDI inflows; savings, investments and growth of gross domestic product (GDP); poverty reduction; savings mobilization and poverty reduction; monetary policy; banks performance; competition and banking system stability concepts. For example, Kamasa (2013) studied the relationship between financial sector reforms and private sector investment; Owusu-Antwi (2009) studied the impact of financial sector reforms on banking systems; Antwi-Asare & Addison (2000) studied the impact of financial sector reforms on banks performance; Sowa (2003) studied the impact of financial sector reforms on poverty reduction; Owusu and Odhiambo (2015) studied the relationship between financial sector reforms and sustainable economic growth; Moyo et al. (2014) studied the effects of financial sector reforms on competition and banking system stability; Affum (2020) studied the effects of financial sector reforms on unaffected financial institutions; Bawumia (2010) studied the effects financial sector reforms on monetary policy; Ekumah and Essel (2001) studied the effects of financial sector reforms on gender access to credit. Kamasa et al. (2020) studied the impact of financial sector reforms on FDI inflows; Asamoah (2008) studied the impact of the financial sector reforms on savings, investments and growth of gross domestic product (GDP); Quartey (2005) studied the relationship between financial sector development, savings mobilization and poverty reduction. The aforementioned studies did not address all the four main themes of this study. In addition, these studies used the data for earlier years and did not capture the changing industry dynamics and the effects of recent third-generation financial sector reforms on economic growth, financial system efficiency and financial development in Ghana. Besides, these studies tend to be based on relatively few people (or small sample size). So, the results may not generalize or apply to the wider population. Moreover, previous studies did not address technological capacity associated with third generation financial sector reforms in the delivery of financial services to the public and unbanked population. At present, there is no study that addresses digital transformation in the banking industry associated with the third generation financial sector reforms. What is lacking from the scientific knowledge are studies to address the concerned area on Ghana and appropriate methodologies to address the main themes of this thesis. To the knowledge of the author, no comprehensive study has been conducted which addresses these recent third generation financial sector reforms and their effects on economic growth, financial system efficiency, and financial development. Therefore, there is a need for a comprehensive analysis of the effects of financial sector reforms on economic growth during the period of third-generation financial sector reforms.

In the light of these empirical and methodological gaps, this present study fills in these demanding gaps for the first-time by providing new empirical evidence on the effects of third generation financial sector reforms on economic growth. The identification of these research gaps drives this study, as it seeks to fill empirical and methodological gaps in scientific knowledge. These are significant research gaps that merit further study because they establish practical issues or concerns that need to be addressed. The consequence of not addressing is that they tend to lead to financial sector reforms policies that either lack theoretical justifications or overlook the intended outcomes.

In a nutshell, these are the identified empirical and methodological gaps that currently exists in the scientific knowledge regarding financial sector reforms, economic growth, efficient financial system, and financial development measures which this present study seeks to fill. These identified gaps are what the researcher is producing new knowledge to mitigate. It is worth mentioning that, filling these gaps represents the additions or original contribution of this research to the scientific knowledge.

Besides, the research problem is an aspect of the financial sector reforms that has not been investigated yet in Ghana. Therefore, this study is an attempt to bring more certainty to analysis of the effects of third generation financial sector reforms in the banking industry on economic growth. This study analyses for the first-time empirical evidence on the effects of third generation financial sector reforms in the banking industry on economic growth of Ghana over the period of (2017-2019).

1.5 Objectives of the Study

1.5.1 General Objective

The foremost objective of this study is to analyse the effects of third generation financial sector reforms in the banking industry on economic growth to produce new knowledge for improving economic growth of Ghana.

1.5.2 Specific Objectives

1. To describe the state of third generation financial sector reforms and economic growth of Ghana.
2. To analyse the effects of financial sector reforms on economic growth of Ghana.

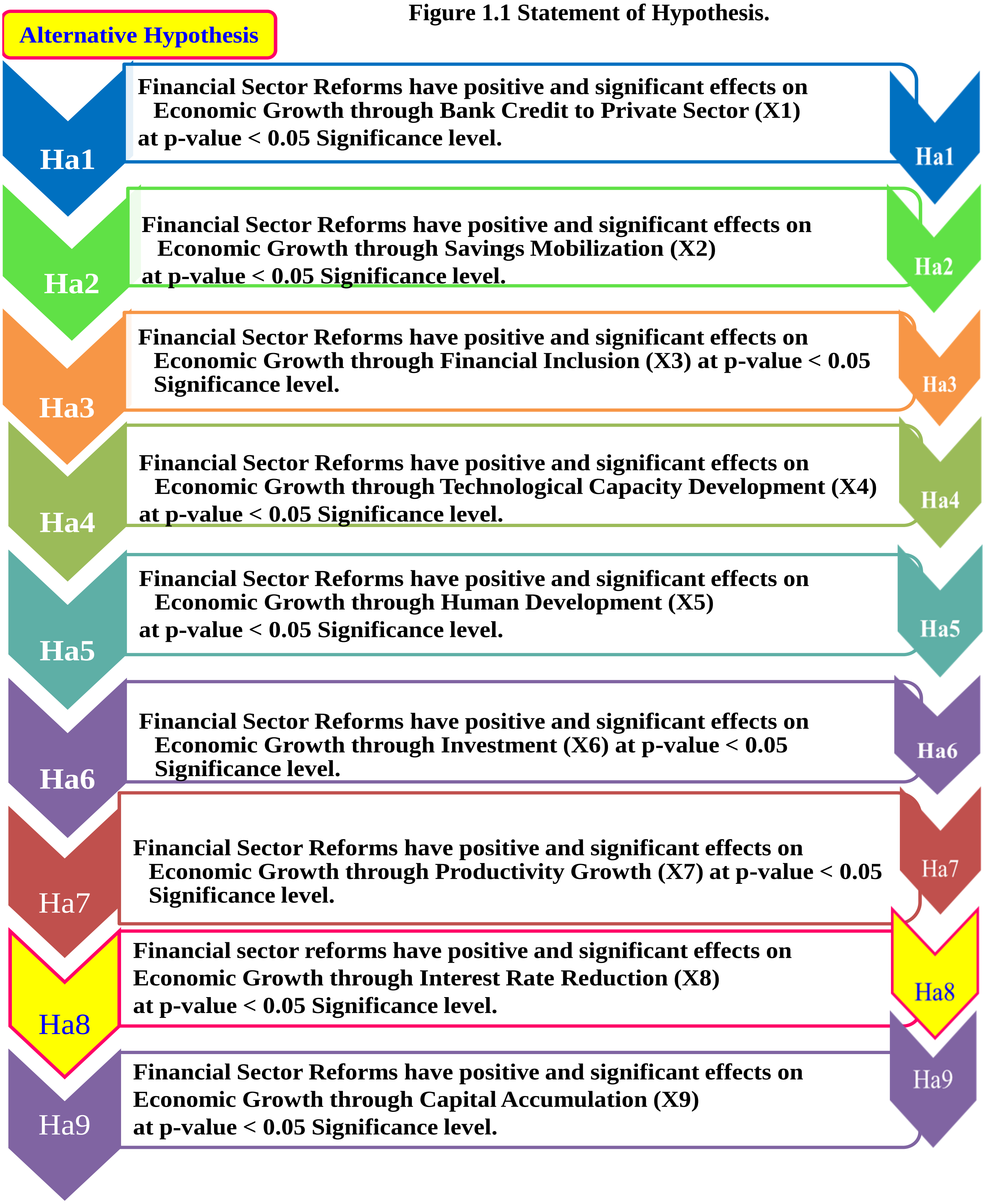
1.6 Research Questions

1. What is the state of third generation financial sector reforms and economic growth in Ghana?
2. What are the effects of financial sector reforms on economic growth of Ghana?

1.7 Statement of Hypothesis

Financial Sector Reforms have positive and significant effects on Economic Growth through X1, X2, X3, X4, X5, X6, X7, X8 and X9 at p-value < 0.05 Significance level.

Figure 1.1 Statement of Hypothesis.



Source: (Field work, 2022).

1.8 Scope of the Study

1. The geographical scope of the study is the Kumasi Metropolitan Area because the Metropolis is the capital of the Ashanti Region, and host the head offices of all the 23 universal banks in Ghana which formed the target population for this study.

2. The focus is restricted to banks because the banking industry dominates the financial sector in Ghana.

3. This study covers the period of three years from (2017 to 2019). The study period is divided into pre-reform periods and post-reform period. (2017 and 2018 are the pre-reform periods), while (2019 is the post-reform period).

4. The study is strictly focused on recent third-generation financial sector reforms in banking industry undertaken by the Central Bank of Ghana and New Patriotic Party (NPP) government under the President Nana Akufo-Addo, because it is the most comprehensive financial sector reforms in the history of Ghana (Oxford Business Group, 2020), and specifically design to address digital transformation of Ghana's banking industry. Above all considering the digital era and the global village, we live in. For this reason, the study is strictly focus on digitization of financial services in Ghana's banking industry.

1.9 Limitations of the Study

The limitations of the study relate mainly to sample selection, data collection, the nature of the data and their combined effect on the generalisability of the findings.

1. A major limitation of this study may be the use of secondary data, which can be a potential source of error. However, this data was supplemented with the primary data to authenticate the secondary data.

2. The primary data collection in this case may be time consuming and expensive pertaining to the large populace and even with respect to sampling.

3. The sample used in the study might not be representative of the population because purposive sampling technique was used to select some of the participants. This may affect the external validity (generalisability) of the study findings. However, great effort was made in applying the results to banking industries in other contexts.

4. The study is limited to universal banks in Ghana.

1.10 Significance and Contributions of the Study

(i) Contribution to Policy and Business Practice: It is hoped that the findings of this research may inform the decisions of managers of the economy and policy makers to propose policies or strategies and advice on ways to make the financial sector reforms impact positively on Ghana's economic growth. The findings of this research may help policymakers to put in place appropriate measures to improve performance; productivity and overall output of Ghana's economy. For example, the findings of the study will benefit policy makers and bank of Ghana in formulating policies targeting financial sector reforms aspects that have significant association with bank credit to private sector in the most productive sectors in Ghana's economy, namely; manufacturing or industry sector, service sector and agriculture sector by designing pro-growth policies that are unique, tailored and appropriate credit lending package for private sector businesses in Ghana to enable them increase their productivity and consumption which in turn improve GDP per capital growth. Moreover, policy and capacity building on enterprise growth and sustainability will be strategic for targeting financial sector reforms inhibiting factors. The multiplier effect of such a policy mechanism is expected to guarantee SME's growth and sustainability. Central Bank of Ghana, bank executives, individual investors and stakeholders stand to benefit from this study. First, Central Bank of Ghana may benefit from the results of this doctoral study as they may have a better understanding of relationship between financial sector reforms and economic growth during regulatory changes. Second, bank managers may identify new ways to improve their performance during economic and regulatory changes from the result of this doctoral study. Third, investors and stakeholders may benefit from the findings of this doctoral study as the findings might add value to knowledge and provide bank stakeholders within sights to monitor the changes of financial regulations and the effect those changes will have on economic growth of Ghana. **(ii) Contribution to Economic Growth and Development of Ghana**: The findings of this research may have the wider benefits for advancing economic growth and development of Ghana. The findings of the study may be of great importance to international community and the development partners to support Ghana. The World Bank, the International Monetary Fund (IMF) and other development finance institutions (DFIs) may use the findings of the study to determine whether to disburse loans and aids to Ghana government towards future financial sector reforms.

(iii) Contribution to Academic World Community in the Field of Finance and Economics: The findings of this research will pave the way for future scholars and researcher to build on this study. The findings of the study may be of great importance to scholars and researchers on the current economic growth trends for Ghana. It is hoped that this study will act as a reference point and may contribute to the empirical and methodological techniques utilized for financial sector reforms and economic growth.

(iv) Contribution to Scientific Knowledge or Literature in the Field of Finance and Economics: This research fills gaps in the literature because the study is under research topic in the literature. This research adds new knowledge to the existing literature on financial sector reforms-economic growth nexus.

(v) Contribution to Political Debates: Finally, the findings of the study will eliminate all doubts and strengthen the debates on superiority of development policies between the governing New Patriotic Party (NPP) government and leading opposition National Democratic Congress (NDC) political party, which was central to the third generation financial sector reforms in Ghana's banking industry over the period of (2017-2019).

1.11 Organization of the Study

The rest of this study is organised into five distinct chapters with each chapter comprising appropriate sections and sub-sections along the following sequence.

In chapter two, the focus is on the literature review. It highlights review of major concepts. Besides, it discusses the historical antecedents of financial sector reforms in Ghana; evolution of financial sector reforms in Ghana (1987-2019); trends of financial sector reforms; interrelationships of major concepts; empirical studies and evidence on relationship between financial sector reforms and economic growth. The chapter concludes with review of related theories and conceptual framework of the study. Following this is the third chapter that outlines the methodology employed for the study, and it covers areas such as research design; data types and sources; study area; choice of sample (comprising population; sampling frame; sample size determination and sampling techniques); instrumentation; data collection methods; data processing; data analysis comprises framework of analysis and techniques of analysis; data description and profile of sampled respondents. Chapter four is devoted to analysis and presentation of results of the state of the third generation financial sector reforms and economic growth in Ghana. Following this is the fifth chapter that is devoted to analysis and presentation of results of the effects of financial sector reforms on economic growth of Ghana. In chapter six, the focus is on the summary of findings, conclusion and recommendations. It highlights the summary of findings; conclusions; and recommendations. The chapter concludes the study with areas for further research and the post script which displays the references and appendices.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This Chapter outlines the literature review of financial sector reforms and economic growth nexus and other aspects of financial sector reforms. It highlights review of major concepts. Besides, it discusses the historical antecedents of financial sector reforms in Ghana; evolution of financial sector reforms in Ghana (1987-2019); trends of financial sector reforms; interrelationships of major concepts; empirical studies and evidence on relationship between financial sector reforms and economic growth. Besides, it highlights review of related theories. The chapter concludes with conceptual framework of the study.

2.2 Major Concepts

The two major concepts in this study are (i) financial sector reforms and (ii) economic growth.

2.2.1 Financial Sector Reforms Concept

Globally, there has been a renewed interest in the concept of financial sector reforms and its ability to engender economic growth, especially among scholars, policymakers, development practitioners and financial sector actors. Regarded as a cross-cutting developmental issue, it is increasingly becoming a strategic factor in the development policy mix (Agyekum, 2017).

2.2.1.1 Financial Sector Reforms Defined

Financial sector reforms are policy measures design to deregulate the financial system and transform its structure with the view to achieving liberalized market-orientd system withing an appropriate regulated framework (McKinnon, 1973; Shaw, 1973). Financial sector reforms are changes that are needed in order to establish a modern financial system (banking system and capital market) capable of improving the capacity of financial markets to move a country and to put the economy on higher growth path for accelerated economic growth and development. Financial sector reforms derive their theoretical basis from the works of McKinnon (1973) and Shaw (1973) financial repression hypothesis, which stressed that financial sector policy in developing countries had led to financial repression.

2.2.1.2 Purpose of Financial Sector Reforms

The purpose of financial sector reforms is to establish an efficient financial system that will improve the allocative efficiency of resources, promote financial inclusion, protect the confidence in financial system and ensure financial stability.

2.2.1.3 Goal of financial Sector Reforms

The overarching goal of financial sector reforms is to create an environment that would permit the emergence and sustainability of efficient financial sector (McKinnon, 1973; Shaw, 1973).

2.2.1.4 Aim of Financial Sector Reforms

The aim of the financial sector reforms is to develop the financial sector to become efficient to channel savings to more productive ventures in facilitating economic growth.

2.2.1.5 Objectives of Financial Sector Reforms

The main objectives of the financial sector reforms are:

(1) To restructure, liberalize and strengthening the banks and the general financial environment with the view to enhancing economic growth (Ekumah & Essel, 2001).

(2) To find solutions for efficient operations and management of the banking industry; to build more efficient, robust and deeper financial systems, which can support the growth of private sector enterprise, and to accelerate the growth momentum of the economy.

(3) To allocate the resources efficiently, increasing the return on investment and accelerate the growth of the real sector in the economy.

(4) Create an efficient competitive and stability that could contribute measure to stimulate growth.

2.2.1.6 Types of Financial Sector Reforms

There are different types of financial sector reforms each with different reform objectives requiring different approaches of measuring the success or impact **(effects)** of financial sector reforms on economic growth.

The liberalisation of controls over interest rates and credit allocation

2.2.1.6.1 Interest Rate Liberalization

The liberalisation of interest rates removes government restrictions on interest rate (interest rate controls). This allows financial institutions to set interest rate on the credit they give out to their customers. The removal of interest rate controls allows banks greater freedom to compete for customers.

2.2.1.6.2 Credit Allocation Liberalization

The liberalisation of credit allocation removes government restrictions on credit (credit controls/credit ceilings, government directed credit to specific sector or sectoral allocation of credit. This allows financial institutions to decide who deserve credit based on the borrowers' credibility and viability of the project. The removal of credit controls/credit ceilings allows banks greater freedom to compete for customers. It ensures efficient allocation of credit and resources.

2.2.1.6.3. New Entry into Banking Sector or Financial Markets

The new entry into banking markets removes government restrictions/entry barriers on foreign banks entry into financial markets and competition. This allows foreign banks to enter the domestic market to do business and compete with the local banks. This also allows competition from non-bank financial institutions. The new entry into banking markets attracts foreign direct investment (DFI) and diversification of the operations. The new entry into banking sector leads to greater competition for depositors and borrowers.

2.2.1.6.4. Privatization of State-owned Banks

The financial sector reforms in respect to government ownership (state-owned banks) is categorized as privatization. This allows government to privatize state-owned banks and reduce government ownership percentage of banking system. The privatisation of government banks allows private sector banks to compete more aggressively against each other than banks owned by the public sector. The privatisation of state-owned banks leads to greater competition for depositors and borrowers.

2.2.1.6.5 Prudential Regulation and Supervision

This imposed minimum paid up capital requirements for foreign and locally owned banks. This allows central bank to set minimum capital adequacy requirement for financial institutions (Antwi-Asare & Addison, 2000).

2.2.1.7 Historical Antecedents of Financial Sector Reforms in Ghana

The origins of the financial crisis in Ghana can be traced to the macroeconomic and financial sector policies that were implemented in the post-independence period. Ghana's case was unique for several reasons. First, Ghana was the first Sub-Sahara African country to gain political independence from the British colonial rule. Secondly, at the time of independence in March, 1957, Ghana was the richest country among the Sub-Sahara African countries outside South Africa; its per capita income compared favourably with that of South Korea. Yet Ghana experienced the sharpest economic decline, which also destabilized its' financial sector (Ziorklui et al, 2001).

The history of the development of the financial sector during the early years of independence was closely linked to extensive government intervention. The government intervened extensively in financial markets in Ghana for two decades in an attempt to control the cost and direction of finance. Public sector commercial banks and development finance institutions (DFIs) were set up and administrative controls imposed on interest rates and the sectoral allocation of bank credit. Much less attention was accorded to prudential regulation. The financial repression of the 1970s and early 1980s had destructive consequences for the depth and institutional strength of the banking system. Financial depth collapsed after the mid 1970s under the impact of sharply negative real interest rates. Moreover, the public sector banks incurred large losses as a result of political pressure to finance unbankable borrowers, including public enterprises, very weak credit procedures and corruption. By the mid 1980s the public sector banks were insolvent with large volumes of non performing assets (NPAs) on their books. By 1982 Ghana provided a classic case of financial repression.

During the pre-reform era, Ghana's banking system was dominated by the state-owned banks and totally controlled by the government. The state-owned banks had a monopoly over the banking sector in regard to their operations and were directed to allocate essential component of their total loan portfolio to selected sectors in the economy. Hence, the government essentially became the biggest borrower. The lending decisions of Ghana’s banks were basically directed by the government and were not based on the borrowers’ credibility and viability of the project. All the seven state-owned banks in Ghana were insolvent before the financial sector reforms.

The Economic Recovery Programme (ERP) which began in 1983, sought to stabilise the economy and then promote growth. The economic reforms included measures to promote fiscal discipline, reforms of the trade and exchange system and other wide-ranging measures initiating price liberalisation and deregulation of many economic activities. In 1987, Ghana’s economic performance declined and its banking system was in distress. Banks were characterised by inefficiency, inadequate capital, insufficient loans loss provisions, high operating costs due to inefficient operations, a large portfolio of nonperforming loans and endured enormous political influence (Adjei-Frimpong, 2013). The financial system was distorted by interest rate controls and selective credit policies, lack of competition, and weak supervision by the Bank of Ghana (Antwi-Asare & Addison, 2000). In order to improve monetary management and the quality of financial intermediation, the government decided to undertake financial sector reforms. Ghana was the first Sub-Sahara African country to formulate a comprehensive financial sector reform in 1987. Financial sector reforms became necessary because the pre-reform policies of the government of Ghana control over financial markets affected the successful functioning of the financial markets, coupled with an acute and prolonged economic crisis, had severely damaged the financial system in Ghana, leading to high financial shallowing and bank distress (Owusu-Antwi, 2009).

2.2.1.8 Evolution of Financial sector Reforms in Ghana

The evolution of financial sector reforms in Ghana's banking sector reflects deliberate policies pursued in line with the economic ideologies of the different governments.

It is worth noting that the political stability since 1983 and the economic ideology of a free market economy which had been embraced by successive governments contributed positively in ensuring that necessary pro-market reforms were undertaken.

Different monetary policy regimes and financial sector policies were implemented under each of the three phases to meet the financial development needs of the country, and are discussed hereafter within the context of the three phases identified below.

2.2.1.8.1 First Generation Financial Sector Reforms 1987 - 2000

Financial sector development during this period was shaped by the first financial reforms. The banking sector was on the verge of collapse and required some reforms, hence the adoption of Financial Sector Adjustment Program (FINSAP). The Financial Sector Adjustment Program (FINSAP) was carried out as part of the broad Economic Recovery Programme (ERP) and Structural Adjustment Programme (SAP) undertaken by the Provisional National Defence Council (PNDC) government in collaboration with the Bretton Woods Institutions: The International Monetary Fund (IMF) and the World Bank (IMF, 2020; World Bank Group, 2019). The aims of these reforms were to increase banks competitiveness, efficiency and performance in the Ghanaian banking system and ensure financial stability that could contribute in greater measure to stimulate economic growth through improved regulatory and supervisory framework. Details of the key financial sector reforms policies and measures are discussed in chronological order below (see Figure 2.1 Trends of major financial sector reforms). Evidence from empirical studies in the late 1980s and 1990s on financial sector reforms lend support to the reforms carried out in line with the McKinnon (1973) and Shaw (1973) hypothesis. Later evidence shows financial sector reforms failed to achieve desired results in many countries including Ghana because the performance of banks in Ghana during the first generation financial sector reforms were abysmal (Antwi-Asare & Addison, 2000).

2.2.1.8.2 Second Generation Financial Sector Reforms 2001-2016

Financial sector development during this period was shaped by the second financial reforms. The financial sector witnessed significant reforms which impacted on the monetary and financial system. The Central Bank of Ghana embarked on a comprehensive banking sector deregulation reform programme under its Financial Sector Strategic Plan (FINSSIP) in 2001. Unlike FINSAP which was undertaken under the auspices of the IMF and World Bank, the recent reforms under FINSSIP during the 2000s were initiated by the Central Bank. The aims of these reforms were to deepen the financial sector and also to increase the competitiveness and efficiency of the banking sector (Agyekum, 2017). Ghana under the New Patriotic Party (NPP) government opted for the Highly Indebted Poor Country (HIPC) initiative of the World Bank and IMF, and made substantial gains from external debt forgiveness and macroeconomic restructuring. The NPP government was voted out of power in 2008. The National Democratic Congress (NDC) government also continued with market liberalisation policies. Details of the key financial sector reforms policies and measures are discussed in chronological order below (see Figure 2.1 Trends of major financial sector reforms).

2.2.1.8.3 Third Generation Financial Sector Reforms 2017-2019

Financial sector development during this period was shaped by the third financial reforms. The third generation financial sector reforms favours systemic changes to reorganise the financial system through the horizontal integration of basic functions; stewardship, financing and provision. The financial sector witnessed significant and the most comprehensive financial sector reforms in the history of Ghana (Oxford Business Group, 2020). The Central Bank of Ghana and NPP government under the President Nana Akufo-Addo embarked on the most comprehensive financial sector reforms in the history of Ghana under its Financial Sector Sanitization popularly known as "Banking Sector Clean-Up Exercise". The aims of the financial sector reforms were to streamline banking operations, enhance the soundness of the banking system, improve on prudent regulatory and supervisory framework, improve the efficiency of the banking system through digitization of the banking sector and accomplish the Digital Ghana Agenda. The changes are still an ongoing process. Details of the key financial sector reforms policies and measures are discussed in chronological order below (see Figure 2.1 Trends of major financial sector reforms).

This space intentionally left blank

2.2.1.8.4 Trends of Major Financial Sector Reforms in Ghana

Table 2.1 Trends of Major Financial Sector Reforms in Ghana

S/N	FINANCIAL SECTOR REFORMS EVENT	MEASURES ADOPTED	YEAR (S)
1	**FINANCIAL SECTOR ADJUSTMENT PROGRAMME (FINSAP)**	**FIRST GENERATION FINANCIAL SECTOR REFORMS:** This Began at the Second Phase of the Structural Adjustment Programme (SAP)	**1987-2000** **1987**
1.1		Preparatory Phase	**1987-1989**
1.2		Removal of Gov't Controls	**1987**
1.3		Interest rate liberalization	**1987**
1.4		Ghana Stock Exchange	**1989**
1.5		The Banking Law, BoG Act 1989	**1989**
1.6		Non-Performing Assets Recovery Law and Trust	**1990-1991**
1.7		Privatization of State Banks	**1992**
1.8		Free Entry of Foreign Banks	**1992**
1.9		Non-Bank Financial Institutions (NBFI) Law	**1993**
2	**FINANCIAL SECTOR STRATEGIC PLAN**	**SECOND GENERATION FINANCIAL SECTOR REFORMS:**	**2001-2008**
2.1	**(FINSSP)**	New Banking Law, BoG Act 2002	**2002**
2.2		The Universal Banking Act	**2003**
2.3		The Banking Law, BoG Act 2004	**2004**
2.4		Foreign Exchange Act 2006	**2006**
2.5		Currency Redenomination	**2007**
2.6		Recapitalization, GH¢60 million	**2007**
2.7		Banking Amendment Act 2007	**2007**
2.8		Credit Reporting Act 2008	**2008**
2.9		Lender and Borrowers Act 2008	**2008**
2.10		Recapitalization, GH¢120 million	**2012**
2.11		The Banks & Specialised Deposit-Taking Institutions Act, 2016	**2016**
2.12		Ghana Deposit Protection Act, 2016	**2016**

Table 2.1 Trends of Major Financial Sector Reforms in Ghana Continued'

3	FINANCIAL SECTOR SANITIZATION	THIRD GENERATION FINANCIAL SECTOR REFORMS:	2017-2019
3.1	(BANKING SECTOR	Recapitalization, GH¢400 million	2017
3.2	CLAEN-UP EXERCISE)	Takeovers, Consolidations, Mergers & Acquisitions of Universal banks	2017
3.3		Licensing & Operating Guidelines for Credit Unions	2017
3.4		Bridge Bank the Consolidated Bank Ghana (CBG LTD) established	2018
3.5		Deposit Protection Act Amended	2018
3.6		**Digitization:** Interoperability (GhIPSS), E-zwich	2018
3.7		National Financial Inclusion and Development Strategy (NFIDS)	2018
3.8		Prudential Regulations & Supervision:	2018
3.9		Corporate Governance Directive	2018
3.10		Basel II/III: IFRS 9 Implementation	2018
3.11		Cyber and Information Security	2018
3.12		Adoption of the Non-performing loan (NPL) resolution plan	2018
3.13		Fit and Proper Persons Directive	2019
3.14		Ghana Deposit Protection Scheme	2019
3.15		The Bank of Ghana Sustainable Banking Principles and Sector Guidance Notes	2019
3.16		Ghana Amalgamated Trust (GAT)	2019
3.17		Revocation of Licenses of weak and insolvent Savings and Loan and Microfinance Institutions	2019
3.18		Draft Borrowers and Lenders Bill	2019
3.19		Payment Systems and Services (Act 987)	2019

Source: Author's own (2022). Compiled by the Author based on BoG (2020); PWC (2020); Antwi-Asare & Addison (2000); Ziorklui (2001); Siaw & Anokye, (2010); and Affum (2020).

2.2.2 Economic Growth Concept

The concept of economic growth has attracted public attention especially among scholars, policymakers and development practitioners. The concept of economic growth has long been considered an important goal of economic policy with a substantial body of research dedicated to explaining how this goal can be achieved (IMF, 2020).

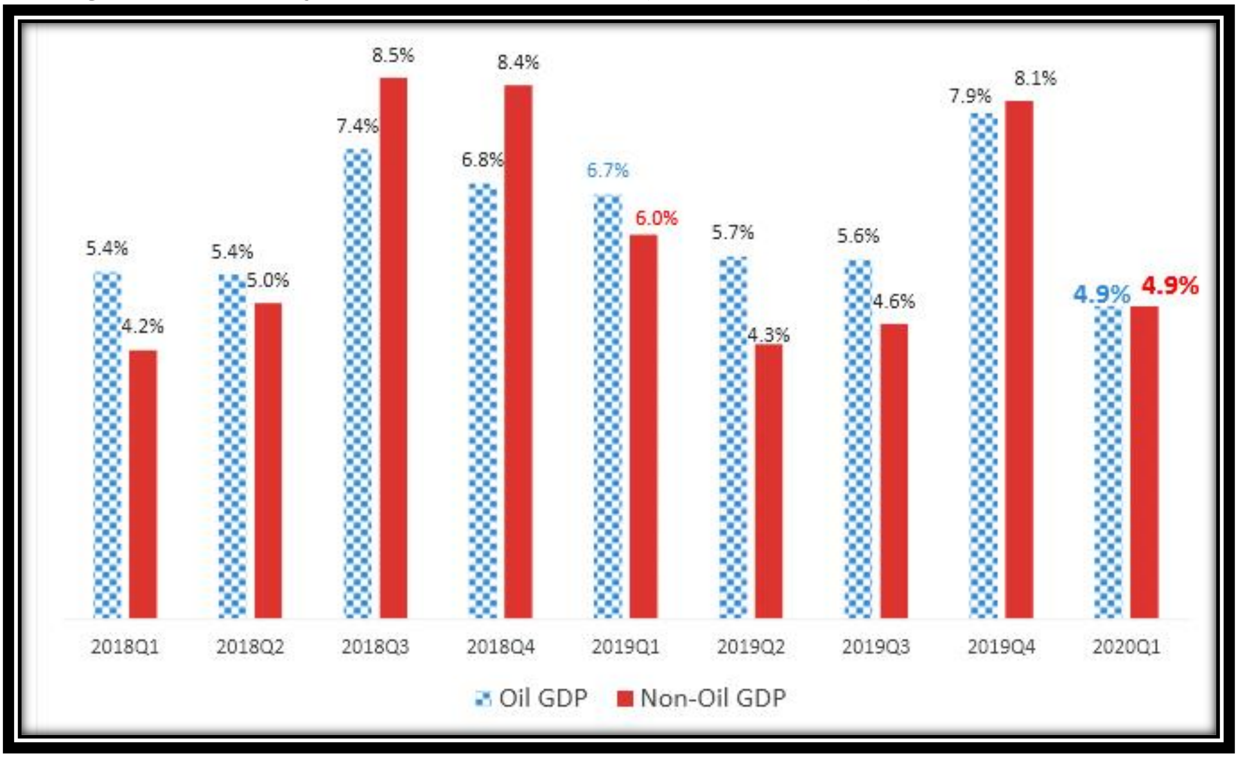
2.2.2.1 Economic Growth Defined

Economic growth is the increase or improvement in gross domestic product (GDP) of a country over time (Cornwall, 2018). Economic growth can best be described as a process of transformation (Rostow, 1960). Economic growth is the process by which a country's gross domestic product (GDP) or output of goods and services increases over time (Eta & Anabori, 2015; (Olowofeso et al., 2015). Economic growth is reflected in the growth of output, rising per capita incomes, and well-being of the citizens. Economic growth is a major distinguishing indicator of a thriving or a failing economy. Per Rostow (1960), the term economic growth is applied to economies already experiencing rising per capita incomes.

2.2.2.2 Measurement of Economic Growth

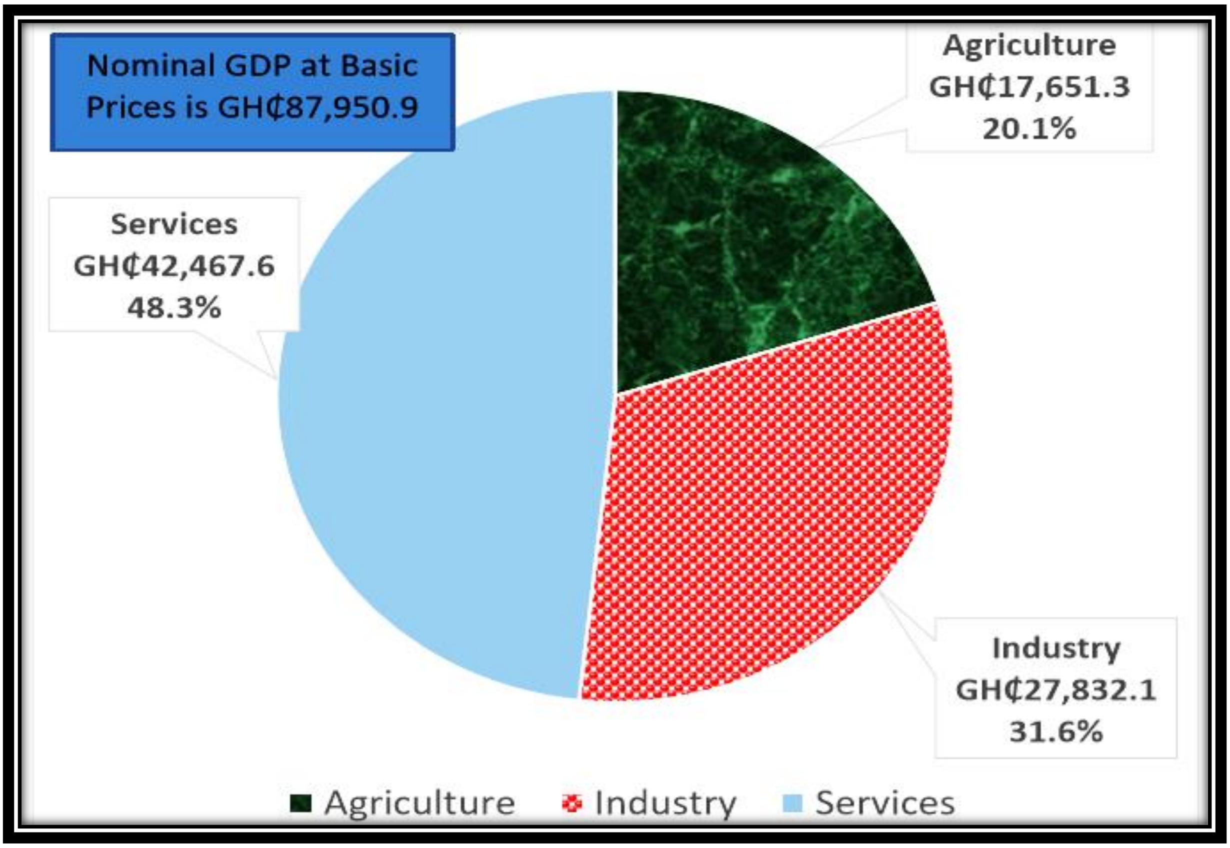
Economists and statisticians use many different methods to measure economic growth (how fast the economy is growing. Typically, economic growth is measured by real gross domestic product (GDP) growth rate, or real per capital gross domestic product (GDP) growth. Per Ghana Statistical Service (2020), gross domestic product (GDP) growth is the main indicator of economic performance. Similarly, per Bank of Canada (2002), the most common way to measure the economic growth is real gross domestic product, or real GDP. Real GDP means that the total has been adjusted to remove the effects of inflation. Gross domestic product (GDP) is the most important variable in analyses of economic growth. An increasing GDP is often seen as a measure of welfare and economic success (IMF, 2020). Gross domestic product (GDP) growth can be measured in terms of demand (total expenditure on goods and services), or supply (total goods and services produced). Economic growth is measured in percentages and expressed as percentage increase in Real per capita GDP Growth (Cornwall, 2018). There are three approaches used to measure GDP: the output approach, the expenditure approach and the income approach. Per Bank of Canada (2002), the three most common ways to measure real GDP are: (i) quarterly growth at an annual rate; (ii) the four-quarter or year-over-year growth rate and (iii) the annual average growth rate. For example, a **recent Gross Domestic Product (GDP) indicator** reported by Tradingeconomics.com and Ghana Statistical Service (2020) indicated that the economy of Ghana advanced 7.9 per cent year-on-year in the fourth quarter of 2019.

Figure 2.1 Quarterly Real GDP Growth Rate (2018Q1-2020Q1)



Source: Ghana Statistical Service (2020; Tradingeconomics.com).

Figure 2.2 Sectoral Distribution (%) of Nominal GDP at Basic Prices



Source: Ghana Statistical Service -GSS (2020; Tradingeconomics.com).

Services is the largest sector of the Ghanaian economy, accounting for (52 per cent) of the GDP. Within services, the most important sub-sectors are; transport and storage (10 per cent); information and communication (9.8 per cent); trade, repair of vehicles and household goods (7 per cent) and financial and insurance activities (4 per cent); education (4 per cent); public administration and defense (4 per cent), and social security (4 per cent). Industry accounts for (26 per cent) of the GDP with mining and quarrying (10 per cent); construction (8 per cent) and manufacturing (7 per cent). Agriculture accounts for (22 per cent), mainly crops constitute 17 per cent (Ghana Statistical Service, 2020; Tradingeconomics.com).

2.2.2.3 Sources of Economic Growth

Economists generally agree that economic growth is influenced by four main factors (Cornwall, 2018). Major sources of economic growth only come from increasing the quality and quantity of factors of production, which consist of four broad types: Natural resources, human resources, physical capital and technical progress (Cornwall, 2018).

1. Natural resources: Increases in quantity and quality of land, minerals, fuels, climate
2. Human Resources: Increases in the supply of labour and quality of labour, human development; human capital, 3. Physical capital: Increases in capital accumulation, increases in quantity and quality capital goods, machines, factories, roads, bridges.
4. Technology: Technological progress (technical progress) and innovations.

Other drivers include investment, economies of scale, access to credit facilities, research and development (R&D) and government. Economic growth of developing countries is heavily based on the financial sector's credit allocation. The drivers of economic growth (such as access to credit facilities, skilled labour, level of technology, etc.) are factors which either improves the quality of outputs, or the efficiency with which inputs are transformed into outputs (Olowofeso et al., 2015). Lower-interest rate reduce the cost of borrowing and increase investment and consumer spending. This increase the demand for goods and services within the economy hence economic growth. Increased real wages: if nominal wages grow above inflation then, consumers have more disposable income to spend and this increases economic growth. Higher global growth lead to increased export spending hence economic growth. However, financial system is the primary driver of a nation's economic growth. Overall, financial development is necessary for economic growth at the macro-level (Khan & Qayyum, 2006).

2.2.2.4 Importance of Economic Growth

Per Rostow (1960), long-term economic growth can lead to sustainable economic development, which in turn leads to benefits such as increased employment rates higher national income and well-being of the citizens. Economic growth also provides additional tax income which can be used to develop the economy further. A booming economy increases lending and profits leading to more bank (Moyo et al, 2014). From the macroeconomic perspective, a rise in real GDP growth is a good indicator of banking stability. Faster economic growth generates higher profit for businesses which can then be reinvented; promoting increased productivity and capacity; creates new jobs; providing a flow of incomes can also reduce income and wealth inequality.

The increase in economic growth means that firms are likely to experience an increase in sales revenue. This causes an increase in the amount of profit that firms receive. An increase in economic growth benefits firms through increased revenues and profits.

2.2.2.5 The role of government in Economic Growth

The differences in rates of economic growth are often attributed to two factors: government and entrepreneurship. The two are not mutually exclusive. In the early stages of sustained economic growth, government has often provided the incentives for entrepreneurship to take hold. In some economies the development of transportation, energy or power, and other utilities is carried out by the government. In others the government offers financial inducements and subsidies. A variation on this argument is the question of how a government may intervene to determine the distribution of output between those types of expenditure that contribute to economic growth and those that lead to the immediate satisfaction of consumer demand. Governments giving a high priority to economic growth have various means at their disposal for influencing it (Cornwall, 2018).

2.2.2.6 The Social Cost of Economic Growth

The belief that governments should have a large say in choosing the right rate of economic growth has also led some writers to challenge the social and economic value of economic growth in an advanced industrial society. They attribute to economic growth such undesirable side effects of industrialization as traffic congestion, the increasing pollution of air and water, the despoiling of the landscape, and a general decline in man's ability to enjoy the real amenities of life (Cornwall, 2018). Similarly, Tsikata (2007), in challenges of economic growth asserts that economic growth poses the strongest challenge to the overall development of Ghana. In his published work, the author enumerates; leadership, human capital development, and growth-promoting cultures like export-led growth and propensity as the major stumbling blocks to Ghana's economic success.

This space intentionally left blank

2.3 Interrelationships of Major Concepts

The connections and interactions between financial sector reforms and economic growth involve other concepts such as financial sector, banking industry, financial system and financial development that are closely connected to each other and may be affecting each other. These concepts react with each other, work together and benefit from each other, and together they explain the success or failure and ability of financial sector reforms to influence economic growth.

2.3.1 Overview of the Financial Sector of Ghana

The financial sector of Ghana is of central importance for Ghana's growth (Antwi-Asare & Addison, 2000). Financial sector and economic growth are inter-related. The financial sector stimulates economic growth of Ghana. The financial sector is the backbone of Ghana's economy. Over the past three decades, it has been undeniably observed that Ghana's financial sector has always played a crucial role in economic growth. During the process of rapid economic growth in Ghana in the last 10 years, the financial sector has played a major role in Ghana's economy. For instance, the total assets of the financial sector grew from 53 per cent of gross domestic product (GDP) in 2010 to 78 per cent in 2017 (World Bank Group, 2019).

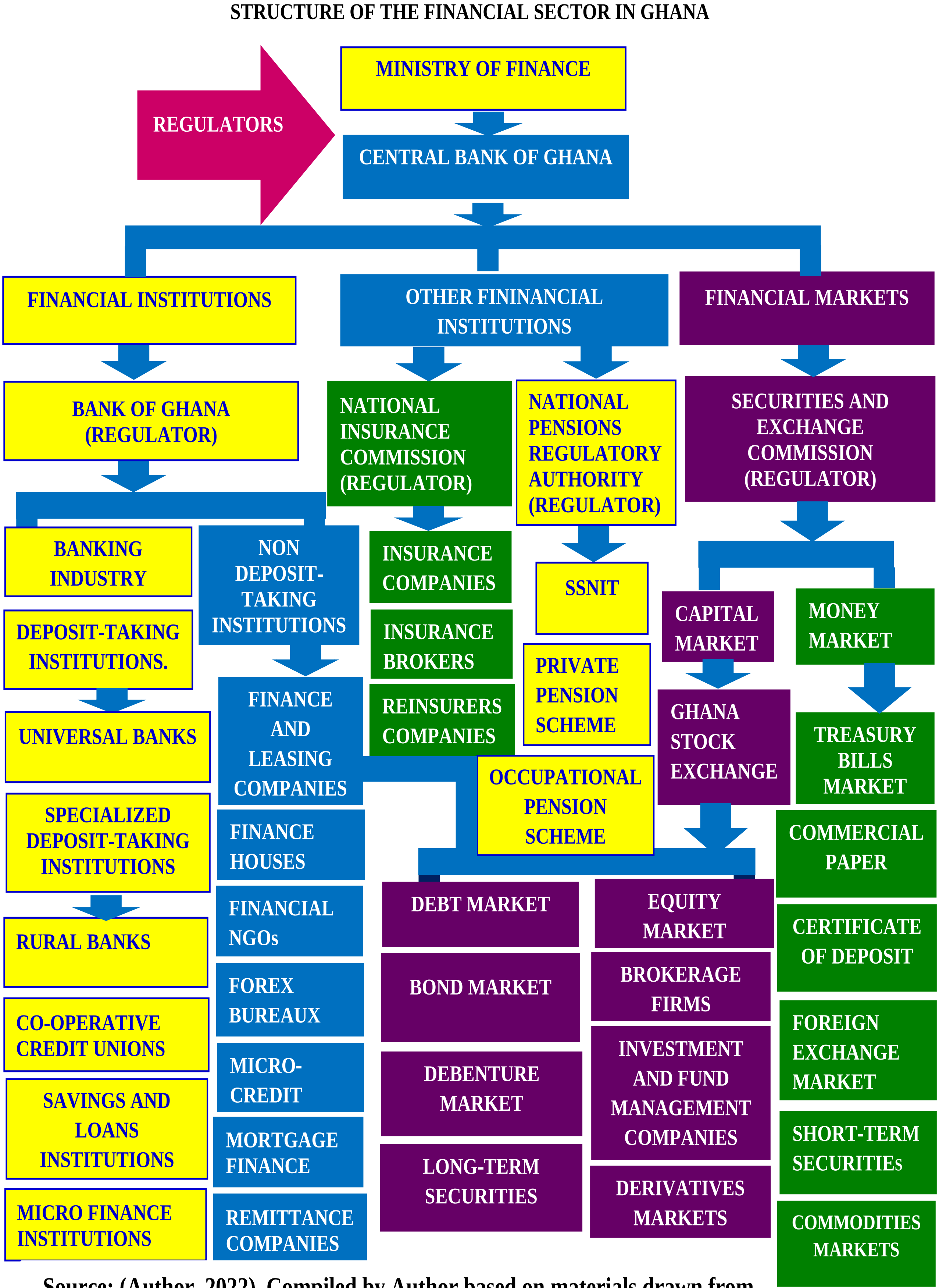
The Ghana's financial sector contributes approximately 6.5 per cent to Ghana's GDP, with a total banking sector asset of GH¢ 129.06 billion as at December 2019 (BoG, 2020). Bank credit to private credit to GDP (18 percent in 2017) is on par with the Sub-Saharan median (International Finance Cooperation- IFC, 2020). However, domestic credit to the private sector is low in Ghana (World Bank Group, 2019). Credit to the private sector stood at GH¢44.49 billion at end of December 2019 (BoG, 2020).

The financial sector in Ghana is comprises (i) Financial institutions and (ii) Financial markets. The financial sector in Ghana is dominated by banks, with bank loans being the primary source of external financing for domestic companies (Antwi-Asare & Addison, 2000). Ghana has a definite financial sector set out by the Ministry of Finance and Central Bank of Ghana, and this comprises financial institutions such as (i) banks (universal banks); (ii) specialized deposit-taking institutions, and (iii) nonbank financial institutions (NBFI) such as forex bureaus, insurance companies, pensions, and financial markets such as capital market, bond market, money market and derivatives market. The specialized deposit-taking institutions (SDIs) comprises; (i) rural and community banks (RCBs); (ii) Co-operatives credit unions; (iii) Savings and loan companies (S&Ls); and (iv) the regulated Micro finance institutions (MFIs). The Micro-Finance Institutions (MFIs) sector comprises deposit-taking microfinance companies (MFCs), microcredit companies, and financial nongovernmental organizations (NGOs).

The Financial sector of Ghana is overseen by the Central Bank of Ghana, the regulatory body established by the 1957 Bank of Ghana ordinance.

There are Four main regulatory institutions responsible for overseeing different segments of the financial sector in Ghana. The Central Bank of Ghana (BOG) is responsible for the licensing and supervision of all banks and nonbank financial institutions (NBFIs). However, the Bank of Ghana takes directives from the Ministry of Finance. The other three regulators are the National Insurance Commission (NIC), which oversee the insurance companies, the National Pension Regulatory Authority (NPRA), which oversee the pensions, and the Securities and Exchange Commission (SEC), which oversee the financial markets such as capital market and money market. The stock or capital market in Ghana is the Ghana Stock Exchange (Agyekum, 2016).

Figure 2.3 Structure of the Financial Sector in Ghana



Source: (Author, 2022). Compiled by Author based on materials drawn from (BoG, 2017; BoG, 2018; BoG, 2019; BoG, 2020).

2.3.1.1 Financial Markets

Financial markets are one aspect of financial system and the most important elements of financial development. It includes four main types, capital or stock markets, bond markets, money market or foreign exchange, and derivatives markets. It is considered that countries with developed financial system are more focused towards the development of financial markets as compare to banks. The four types of financial markets are discussed below.

Bond markets trade is a place where investors lend money to government or some companies in return for a pre-settled interest rate. Bond markets have two types i.e. primary bond market and secondary bond market. In primary markets the bonds are traded for the first time after their issuance, whereas in secondary markets the subsequent transactions of bonds are carried out. **Capital or Stock markets** are a very important component of an economy. They provide a platform to buyers and sellers to meet up and trade. The investments in turn help the traders to generate more funds and expand their businesses. Capital or Stock markets are considered to be the most key source to generate funds for companies (Eg. Equity and Debt Markets). Liquidity is considered as the main factor which attracts the investors to invest their funds in stock markets. Liquid Stock markets enable firms to acquire much needed capital quickly. **Money market or foreign exchange market** is the place where trading of currencies takes place. Usually trading in this market occurs over the counter. The relative values of currencies are also determined by this market. This market facilitates the traders to exchange certain number of currencies for the exchange of other currency. There are two types of exchange rate regimes; first one is called the floating exchange rate, in this case the value of currency can fluctuate with foreign exchange market. In case of floating exchange regimes, the countries are enabled to adjust for the shocks. The second form is called pegged exchange rate regimes. In this case, the value of currency is matched with the value of other currency and sometimes with gold as well. **Derivatives markets** deals in swaps, forward contracts, options and future contracts. These instruments are derived from the other assets (i.e. their values are based on some other assets). These assets can be stocks, currencies, commodities, bonds, etc. The trading is done over the counter as well as in the exchange traded derivatives market.

2.3.1.2 Financial Institutions

Financial Institutions are one aspect of financial system and very important components of financial development. The key role played by the financial institutions in the financial system is to act as financial intermediaries channelling funds from those with income in excess of their needs to those wishing to borrow, by obtaining deposits from lenders and then re-lending them to borrowers. Financial institutions include universal banks; rural and community banks; co-operatives credit unions; savings and loan companies; micro finance institutions; micro-credits; finance houses; leasing companies; forex bureaux; financial NGOs, non-governmental microfinance institutions; finance and leasing companies; remittance companies; insurance companies; pensions companies; SSNIT and mutual fund companies (BoG, 2017; BoG, 2018; BoG, 2019; BoG, 2020). Most countries are still completely relying on their banking sector rather than financial markets. However, Ghana relies on both financial institutions and financial markets.

2.3.1.2.1 Overview of the Banking Industry in Ghana

Since independence, banking industry is the dominant force in Ghana's financial sector (Kamasa et al, 2020). Banking industry and economic growth are inter-related. The banking industry stimulates economic growth of Ghana. The banking industry alone accounts for 70 per cent of the entire financial sector. The Central Bank of Ghana has supervisory and regulatory authority in banking and non-bank financial business activities. The performance of the banking industry is very significant in view of the tremendous role banks play in the economy (Oduro-Asamoah, 2015). The Ghanaian banking industry has undergone considerably transformation since 1987 as a result of the gradual but steady implementation of financial sector reforms.

The banking industry in Ghana comprises of state banks, private domestic banks, pure foreign banks, and regional pan-African banks. Most remarkably, foreign banks hold 51 per cent of the total assets of Ghana's banking industry. The banking industry dominates the financial sector in Ghana. Ghana banking system is small and banks sizes are small on average. Ghana's banking sector is dominated by private companies, with the government now owning four major banks, two of which are among the three largest in Ghana. Foreign banks comfortably take a good part of this tremendous private sector participation in Ghana's banking sector.

Ghana's banking industry is adequately capitalized, liquid and profitable. The Bank of Ghana monetary policy report showed the banking sector remained profitable, with the fourth quarter of 2019 recording after-tax income of GH¢1,800,906 million at the end of December 2019, showing an annual growth of 37 per cent, while liquidity levels in universal banks at the end of December 2018 through to the fourth quarter of 2019 was among the highest recorded in the past 12 years (BoG, 2020). The banking industry remained strong, safe and sound as the clean-up and recapitalisation of the sector continued to yield positive results. Growth in assets size improved significantly, mainly due to an increase in deposits. Credit growth at end of December 2019 was strong, despite declines during the course of the year. The industry's non-performing loans ratio have declined to 13.94 per cent in 2019, the lowest in five years and continue to improve in Ghana's banking industry. Broadly, all the financial soundness indicators, measured in terms of earnings, liquidity, and capital adequacy remained strong. Total assets of the banking sector increased to GH¢129.06 billion at end of December 2019, representing a 22.8 per cent year-on-year growth. The ratio of total earning assets (Loans & Advances and Investments) to total assets increased to 68.5 per cent in 2019, from 65.2 per cent in 2018. The funding sources of total assets were mainly from Deposits (64.7% of total assets) and borrowings and other liabilities which increased by 26.7 per cent to GH¢28.02 billion (BoG, 2020).

The banking industry is classified into deposit-taking financial institutions; (ii) specialized deposit-taking institutions (SDIs), and (iii) non deposit-taking financial institutions. The deposit-taking financial institutions are the universal banks.

The total number of licensed universal banks in Ghana as at December, 2021 is 23 comprising 14 foreign banks and 9 local banks (PWC, 2020).

The specialized deposit-taking institutions (SDIs) comprises; (i) rural and community banks (RCBs); (ii) co-operatives credit unions; (iii) savings and loan companies (S&Ls); and (iv) the regulated micro finance institutions (MFIs). The non-deposit-taking financial institutions comprises; (i) finance houses; (ii) leasing companies (iii) forex bureaux; (iv) financial NGOs, (v) non-governmental microfinance institutions; (v) mico-credit institutions (vi) finance and leasing companies (vii) mortgage finance companies (viii) credit reference bureaux (BoG, 2020).

As at December, 2021, there were a total of 180 licensed Microfinance Institutions; 25 Savings and Loans Companies; 14 Finance Houses; 31 Microcredit; 3 Finance and Leasing Companies; 1 Mortgage Finance Company; 1 Remittance Companies; and 12

Financial NGOs. The total number of licensed forex bureaux as at December, 2021 was 426. Rural and community banks (RCBs) which focus on rural areas are also under the oversight of the ARB Apex Bank or Mini central bank, with delegated functions from the Bank of Ghana. The ARB Apex Bank also functions like a central bank, including maintaining reserves of rural and community banks (RCBs).

The total number of licensed rural and community banks (RCBs) stood at 144 at the end of December 2021. Cooperative credit unions are now supervised and regulated by the Ghana Co-operative credit unions association (CUA), with delegated authority from the Bank of Ghana. The total number of licensed Co-operatives credit unions stood at 431 at the end of December 2021. Below is a list of banks with representative offices only as at December, 2021. These banks maintain only representative offices in Ghana. (i) Bank of Beirut; (ii) Citibank N.A. Ghana Rep. Office; (iii) Exim Bank of Korea (Representative Office); (iv) Ghana International Bank Plc.

Other banks: ARB Apex Bank Limited (BoG, 2020).

2.3.1.2.2 Categories of Banking Licenses

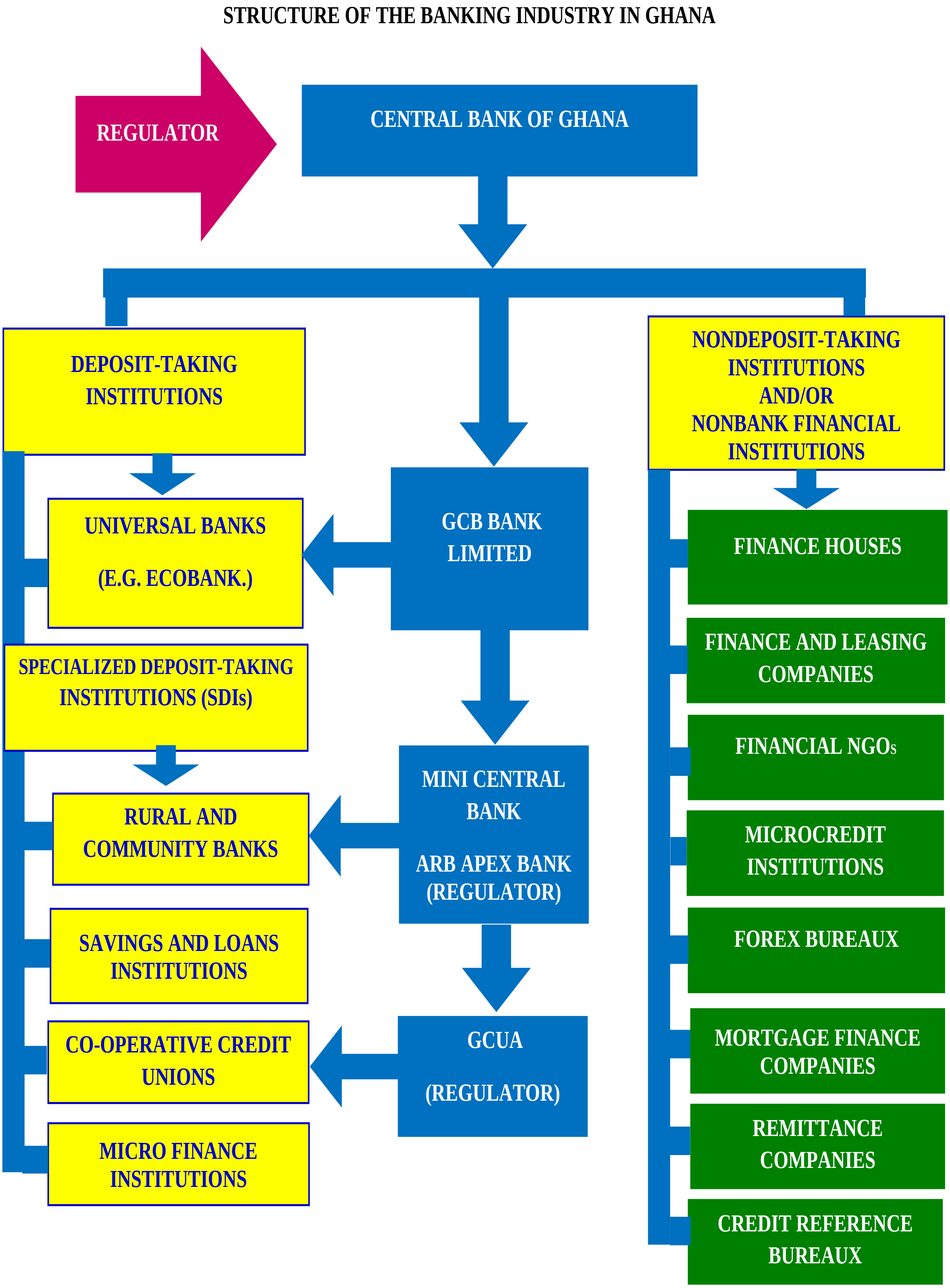
There are three categories of banking licenses for operating in the banking sector:

Class I Universal banking license: This allows the holder to transact domestic banking business (this was previously the UBBL).

Class II Banking License: This allows the holder to conduct banking or investment banking business with non-residents and other class II banking license holders in currencies other than the Ghanaian Cedi (unless otherwise permitted by the BOG.

General banking license: This allows both the Class I and II banking business in and from within Ghana (International Finance Cooperation, 2020).

Figure 2.4 Structure of the Banking Industry in Ghana



Source: (Author, 2022). Compiled by Author based on materials drawn from (BoG, 2017; BoG, 2018; BoG, 2019; BoG, 2020).

2.3.1.2.3 Universal Banks in Ghana as at June 2020

Table 2.2 Universal Banks in Ghana as at June 2020.

Universal Banks in Ghana

Name of Universal Bank	Year Bank Commenced Business	Majority Ownership	Number of Branches
Absa Bank Ghana Limited	1917	Foreign	54
Access Bank (Ghana) PLC.	2009	Foreign	53
Agriculture Development Bank Limited	1965	Local	83
Bank of Africa Ghana Limited	1997	Foreign	25
CAL Bank Limited	1990	Local	31
Consolidated Bank Ghana Limited	2018	Local	106
Ecobank Ghana Limited	1990	Foreign	67
FBN Bank Ghana Limited	1996	Foreign	19
First National Bank Ghana Limited	2015	Foreign	11
Fidelity Bank Ghana Limited	2006	Local	69
First Atlantic Bank Limited	1994	Foreign	37
GCB Bank Limited	1953	Local	185
Guaranty Trust Bank Ghana Limited	2004	Foreign	32
National Investment Bank Limited	1963	Local	48
OmniBSIC Bank Ghana Limited	2019	Local	46
Prudential Bank Limited	1993	Local	41
Republic Bank Ghana Limited	1990	Foreign	42
Société Générale Ghana Limited	1975	Foreign	42
Stanbic Bank Ghana Limited	1999	Foreign	38
Standard Chartered Bank Ghana LTD	1896	Foreign	21
United Bank for Africa Ghana Limited	2005	Foreign	28
Universal Merchant Bank Ghana LTD	1972	Local	36
Zenith Bank Ghana Limited	2005	Foreign	28

Source: (Author, 2022). Compiled by Author based on materials drawn from (PWC, 2020)

2.3.2 Financial System

Financial system is most important concept of the modern society (Kiani & Ali, 2019). Financial system is the primary driver of a nation's economic growth. The overall impact of financial system in economy is to ensure sustainable economic growth and development. If the financial system is strong, the economy grows, and companies in the financial services industry (banks) are better able to manage risk.

2.3.2.1 Financial System Defined

A Financial system can be defined as the interaction of all financial agents and real economy agents as they interact with the financial agents. It is a complex network embracing payments mechanisms and the borrowing and lending of funds. Financial agents include regulated banks, non-banking financial institutions, non-regulated and informal savings and credit organizations and regulatory bodies. Real economy agents include firms, households and individuals. Interaction includes transactions in relation to any financial markets and services, including credit, savings and services such as money transfers, and the financial infrastructure such as regulation, credit information-sharing systems and payment, settlement and transfer systems. It comprises network of financial markets, financial institutions, businesses, households and governments that participate in that system and regulate its operations.

2.3.2.2 Financial Intermediation and Credit Creation in the Financial System

The term financial intermediation defines a key role in the financial system. An intermediary is a go-between, and a financial intermediary is an institution which links lenders with borrowers, by obtaining deposits from lenders and then re-lending them to borrowers. The basic process of financial intermediation is shown below.

(1) If no financial intermediation takes place, lending and borrowing will be direct.

Figure 2.5 Lending and Borrowing If No Financial Intermediation Takes Place

Source: (Author, 2022). Compiled by Author based on materials drawn from (Quarshie, 2011).

(2) If financial intermediation does take place, lending and borrowing will be indirect.

Figure 2.6 Lending and Borrowing If Financial Intermediation Does Take Place

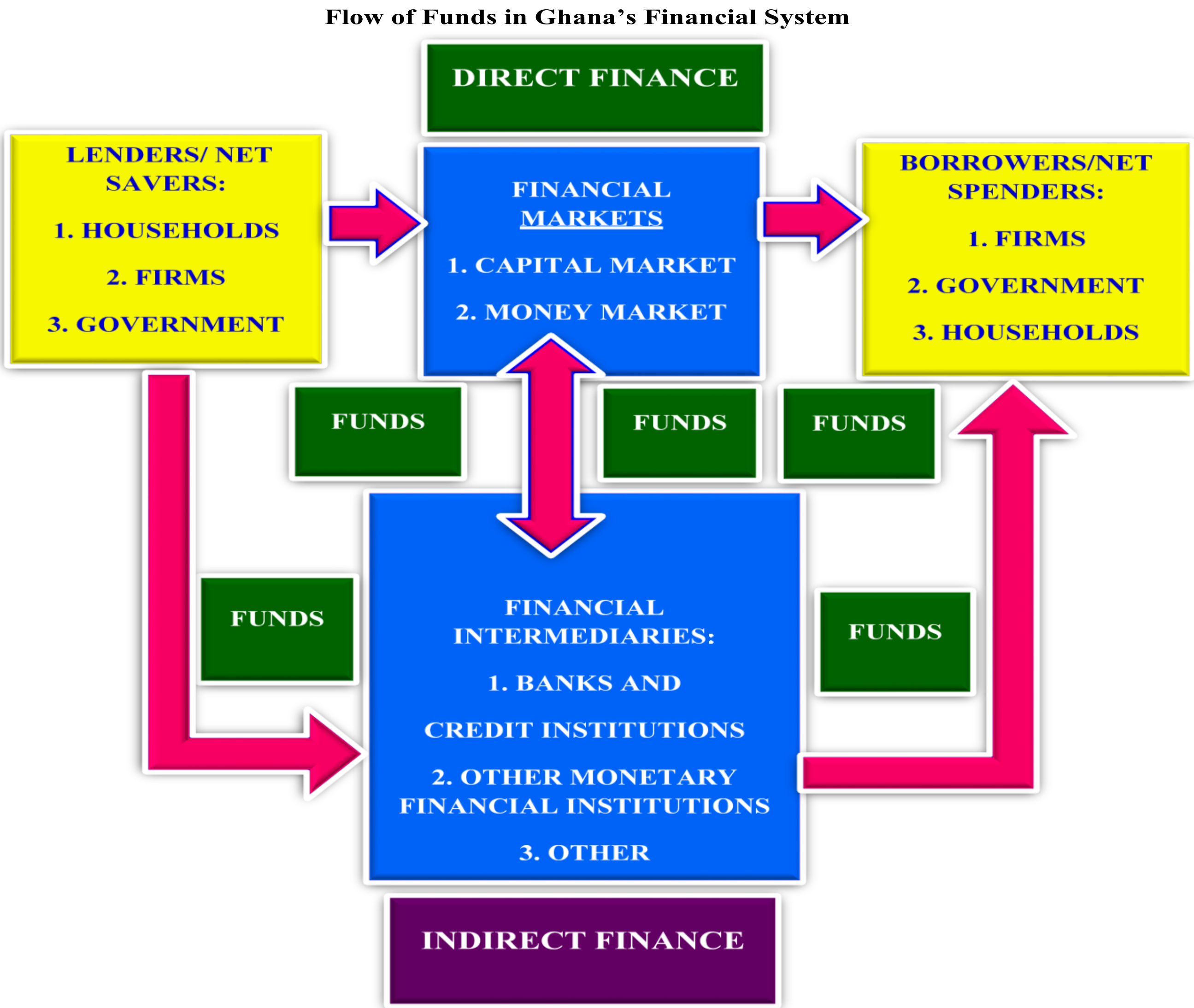
Source: (Author, 2022). Compiled by Author based on materials drawn from (Quarshie, 2011).

For example, a person (surplus unit) might deposit savings with a bank and the bank (as financial intermediary) might use its collective deposits of savings to provide a loan to a company or individual (deficit unit).

2.3.2.3 Flow of Funds in Ghana’s Financial System

The primary duty of financial system of a country is to transfer excess money stocks from savers to the borrowers for making goods and services and also investment that causes growth of the economy and also living standard of people gets better. In so doing, financial system provides for smooth functioning of modern economies, enabling resources to find their way to their most highly valued use. Financial system provides financial resources through two types of financing. This can be achieved either by direct financing or by indirect finance (Ibrahim, 2011). These two types of financing play an important role in boosting the economy. (i) Indirect finance refers to bank-based financing through financial intermediaries. Indirect finance is where an institution stands between lender and borrower. For instance, a loan from a bank or finance company, and (ii) Direct finance refers to market-based financing through financial markets. Direct finance is where borrowers sell securities directly to lenders in the financial markets. Direct finance provides financing for governments and corporations. An effective financial system attracts capital from fund-suppliers (household, companies, governments), people who have more money than they need and want to put some away and gives it to fund-users (households, companies, governments), people in need of capital (Quarshie, 2011; Bank of Finland, 2004).

Figure 2.7 Flow of Funds in Ghana's Financial System

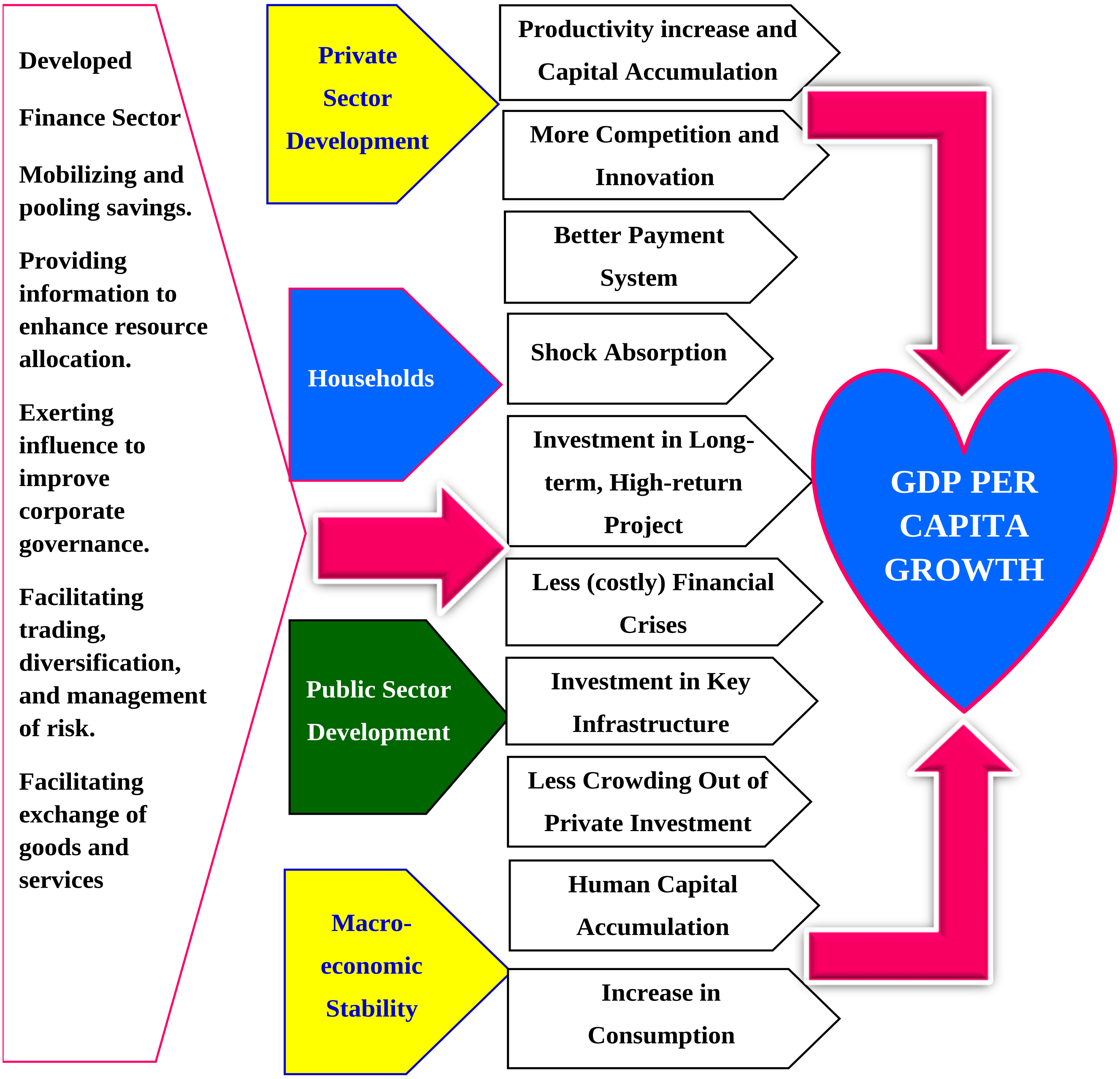


Source: (Author, 2022). Compiled by Author based on materials drawn from (Quarshie, 2011; Bank of Finland, 2004; Tyson, 2015).

2.3.2.4 Functions of Financial System

In any economy, the financial system plays a major role in transferring financial resources from net savers to net investors (Levine, 2004). The function of the financial sector is not only to provide the intermediation that pools funds from savers and channel to investors, but also to economic growth by channelling fund from areas of surplus to areas of scarce (Eta & Anabori, 2015). A well-developed financial system support capital formation and encourages investment by identifying and financing productive business opportunities. Financial system provides the flow of capital and liquidity to the marketplace in the economy and permit a higher level of economic activity than would otherwise be possible. A properly functioning financial system help generate more employment opportunities within the economy. The financial system helps provide funds to the growing business houses and industries, which results in an increase in productivity hence economic growth. Financial system helps to mobilize savings and direct funds into production sectors. As a result, it facilitates efficient allocation of resources and increases overall productivity hence economic growth. Financial system provides the flow of capital and liquidity to the marketplace in the economy and permit a higher level of economic activity than would otherwise be possible. Based on an extensive survey of the literature, Levine (2004) identified and summarized five key functions that a financial system provides in facilitating growth: (i) Mobilizing and pooling savings; (ii) Providing information to enhance resource allocation; (iii) Exerting influence to improve corporate governance; (iv) Facilitating trading, risk management and risk diversification. By enabling risk diversification across firms and industries, financial systems can influence the allocation of resources and hence economic growth. While individuals are generally averse to risk, high-return investment opportunities tend to be high-risk, and (v) Facilitating exchange of goods and services. Through these functions, financial sector development facilitates economic growth not only by promoting private sector development, but also by supporting the public sector to invest in infrastructure and by enabling households to invest in human capital and benefit from consumption smoothing and this translate into increased GDP per capital growth.

Figure 2.8 Financial System and GDP Per Capita Growth



Source: (Author, 2022). Compiled by Author based on materials drawn from (Levine, 2004; Waheed, 2009).

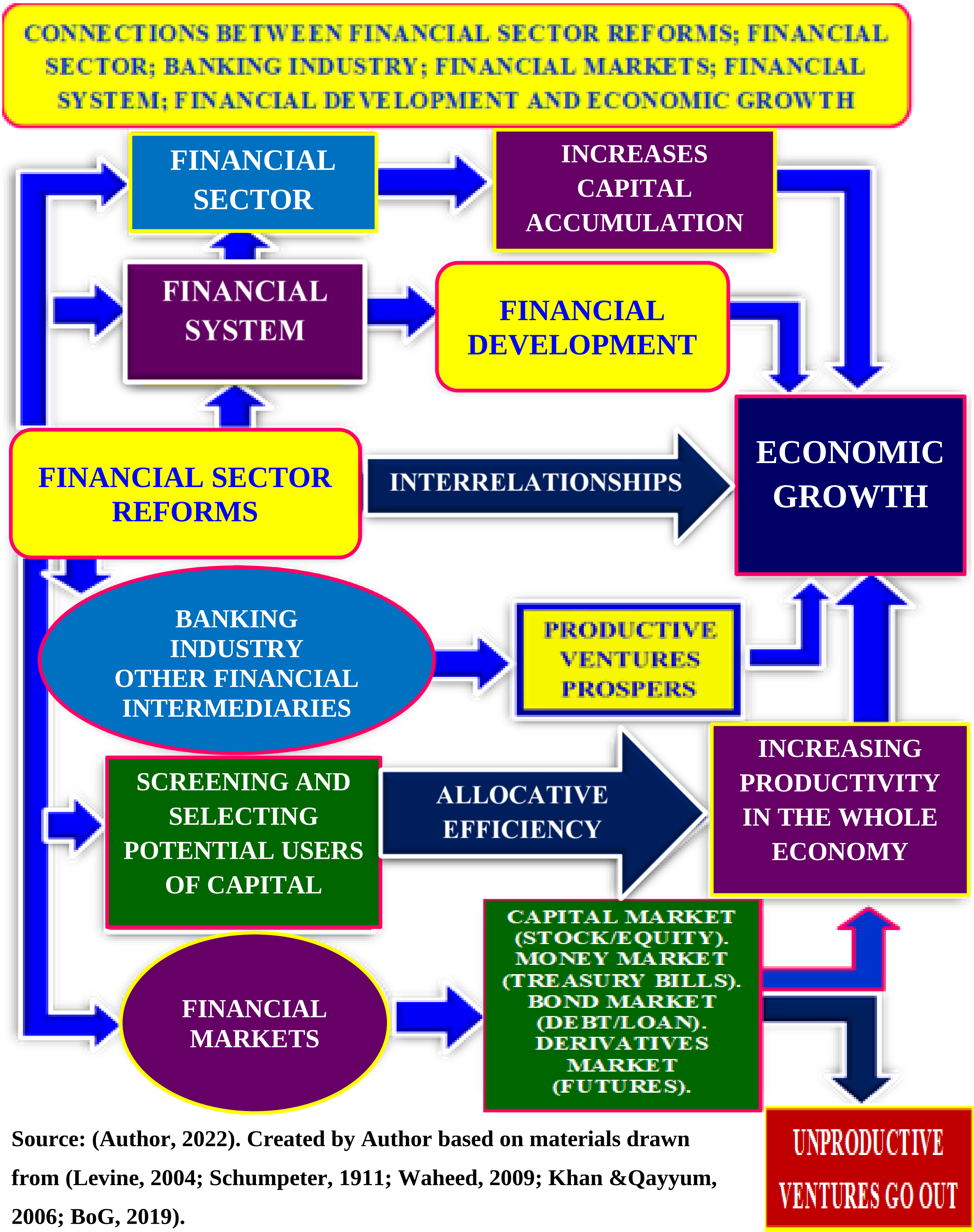
2.3.3 Financial Development

Financial development is considered to be the principal input for economic growth (Levine, 2004). Financial development is linked to economic growth (Schumpeter, 1911). The outcome of financial development is economic growth. Overall financial development is necessary for economic growth at the macro-level (Khan & Qayyum, 2006).

2.3.3.1 Financial Development Defined

Development refers to the policies, factors, and the institutions that lead to the efficient financial intermediation and effective financial markets. Financial development is combination of access, depth, stability and efficiency of financial system. The greater the financial development, the higher would be the mobilization of savings and its allocation to high return projects. It is an important element to affect the rate of economic growth by altering productivity growth and efficiency of capital. Financial development involves improvements in such functions provided by the financial systems as: (i) pooling of savings; (ii) allocating capital to productive investments; (iii) monitoring those investments; (iv) risk diversification; and (v) exchange of goods and services (Levine, 2006). Financial development can be measured by examining the performance and activities of the financial institutions and financial markets. Starting from Schumpeter (1911), several authors have pointed out the productivity and growth enhancing effects of a developed financial sector. Schumpeter (1911) suggests a strong and positive link between financial development and economic growth. In this regard, Aghion et al. (2005) argued that financial development does not only help accelerate growth, it is also particularly beneficial for developing countries to catch up with more advanced economies.

Figure 2.9 Summary Interrelationships of Major Concepts



Source: (Author, 2022). Created by Author based on materials drawn from (Levine, 2004; Schumpeter, 1911; Waheed, 2009; Khan &Qayyum, 2006; BoG, 2019).

2.4 Empirical Studies and Evidence on Relationship Between Financial Sector Reforms and Economic Growth

This is the starting point of a great deal of previous empirical work that attempts to quantify the importance of different views on the relationships that must exist between financial sector reforms and economic growth. The review is done on studies conducted on Global, Africa and Ghana (all written together).

Studies on financial sector reforms and economic growth nexus are built on finance and growth nexus. At the global level, there is a lack of consensus among researcher, policymakers, economists and development practitioners on the relationships that must exist between financial sector reforms and economic growth. However, evidence on the exact effects of financial sector reforms on economic growth, especially in developing countries, has been mixed. There is also a lot of variation in results depending on which methodology (research design and approach) each study used to capture effects of financial sector reforms on economic growth. Evidence seems inconclusive, some researchers found positive relationships between financial sector reforms and economic growth. Findings of various studies have revealed inconsistencies regarding the relationship between financial reforms and economic growth. However, balance of evidence seems to favour a positive relationship between the financial sector reforms and economic growth. Several prior empirical works seem to support the view that financial sector reforms can significantly drive economic growth (Schumpeter (1911; Moyo et al, 2014; Khan & Qayyum, 2007; Yu & Liu, 2007).

In their study on financial intermediation and economic growth, Allen and Ndikumana (2000) examined the relationship between financial intermediation and economic growth in the Southern Africa Development Community (SADC). Results showed a positive correlation between financial development and the growth of real per capita GDP in the Southern Africa Development Community (SADC).

In his study on banking sector reforms and economic growth, Fadare (2010) investigated the effect of banking sector reforms on economic growth in Nigeria. Results indicated that total banking sector credit to the private sector, parallel market premiums, size of the banking sector, interest rate margins, capital and cash reserve ratios, and inflation rate contribute to a very high proportion of the variation in economic growth in the country.

In their study on financial development and economic growth, Ege et al. (2008) investigated whether financial development leads to economic growth in Turkey. Results indicated long-run relationship between financial development and economic growth. Results of Granger causality showed a strong unidirectional Granger causality from economic growth to financial development.

In his study on financial development and economic growth, Wadud (2005) examined the causal relationship between financial development and economic growth for three South Asian countries including Pakistan, Bangladesh and India. Results showed a relationship between growth and financial development.

In his study on financial development, investment, and economic growth, Xu (2000) examined the long-term cumulative effects of finance on growth for forty-one countries for the period 1960-1993. Results indicated that financial development causes long-run economic growth. This result is consistent with Wadud (2005).

In their study on impact of banking sector reforms on economic growth, Okoi et al. (2019) examined how banking sector reforms impact on economic growth in Nigeria. Results showed the existence of a long-run relationship banking sector reforms and economic growth.

By contrast, Owusu and Odhiambo (2015) examined the relationship between financial sector reforms and sustainable economic growth in Ghana. Results indicated that in the long run, financial sector reforms have an insignificant impact on economic growth in Ghana. This supports numerous past studies that have reported mixed or inconclusive results on the effects of financial reforms on economic growth

In his study on interest rate deregulation, bank development and economic growth, Odinambo (2010) investigated the relationship between interest rate deregulation, bank development and economic growth in South Africa, Results indicated strong support for the positive impact of interest rate reforms on financial development. Results also showed that financial development, which results from interest rate reforms, did not Granger cause investment and economic growth.

In his study on development of financial intermediation and economic growth, Hao (2006) examined the development of financial intermediation and economic growth of the Chinese economy. Results indicated that financial intermediation happens through the substitution of loans for state budget appropriation and the mobilization of household savings. This means, loan expansion does not contribute to growth if the loan distribution by the financial intermediaries is inefficient.

In his study on financial intermediation and growth, Boyreau-Debray (2003) investigated the relationship between financial intermediation and growth in China. Results indicated that the mobilizing and pouring of funds into the declining parts of the Chinese State Enterprise system has not promoted growth.

In their study on financial intermediation and growth, causality and causes, Beck et al. (2000) investigated the relationship between financial development and economic growth, as well as the relationship between financial development, and the sources of growth in terms of private saving rates, physical capital accumulation, and total factor productivity. Results indicated that higher levels of financial development lead to higher rates of economic growth and total factor productivity.

In his study on financial deepening and economic growth, Ibrahim (2011) examined the relationship between financial deepening and economic growth in Ghana. Results revealed a positive long run relationship between financial deepening as measured by credit to private sector to GDP and economic growth.

In his study on impact of financial reforms on the banking system, Owusu-Antwi (2009) investigated the pre-and post-reforms policies to determine whether those policies have helped to eradicate problems that were hindering the effectiveness of the financial system. The findings showed that the performance of the financial sector has been substantial and healthy since the reforms. The findings suggest that the financial liberalization strategy pursued in Ghana has promoted economic growth.

In their classical scholarly work on financial sector reforms and bank performance, Antwi-Asare & Addison (2000) evaluated the impact of the financial sector reforms on bank performance in Ghana from the pre-reform period 1980-86 to the period during the major reforms of 1987-89 and 1990-1996. Results indicated that measures such as the liberalisation of interest rates and credit allocations have indeed enhanced financial development. Results suggest that a wider range of financial services has become available and there is greater competition between banks.

In their study on financial liberalization, financial sector development and economic growth, Ang and McKinbbin (2007) examined whether financial development leads to economic growth, or vice versa in the small open economy of Malaysia. Results showed that financial liberalization, through removing the repressionism policies, has a favourable effect in stimulating financial sector development. Results also indicated that financial depth and economic growth are positively related. Results supported Robinson’s view that output growth leads to higher financial depth in the long run.

In his study on financial sector development, savings mobilization and poverty reduction, Quartey (2005) document that development of Ghana’s financial sector increase savings mobilization and economic growth.

In his study on financial openness induced growth and poverty reduction, Adam (2011) investigated the impact of Ghana’s financial openness induced growth on poverty. Results showed that there a positive long-run relationship between financial sector reforms and economic growth. This means that Ghana’s financial liberalization has contributed positively towards its economic growth. Results also indicated that there is a positive relationship between growth and standard of living.

In his study on the impact of the financial sector reforms on savings, investments and growth of gross domestic product (GDP), Asamoah (2008) assessed financial sector reforms and its impact on savings, investment and the growth of GDP in Ghana. Results indicated that the rise in interest rate over the years after the financial sector reforms has led to a corresponding increase in savings which has a positive impact on the growth of GDP. Results also showed that financial sector reforms have increased the rate of capital accumulation and improved efficiency in capital utilization which is both essential for economic growth.

In their study on financial sector reforms on economic growth, Akpunonu et al. (2019) examined the effect of financial sector reforms on economic growth in Nigeria from 1986-2013. Results indicated that bank capitalization has significantly affected economic growth in Nigeria and interest rate has also affected economic growth significantly in the long run.

In his study on financial liberalisation and economic growth, Anokye (2009) examined the effect of the financial liberalisation policy on economic growth of Ghana from 1970 to 2007. Results indicated a positive and significant impact of financial liberalisation on gross domestic product (GDP) per capita of Ghana.

In his study on assessment of the impact of banking reforms on economic growth and bank performance, Gidigbi (2017) assessed the impact of banking reforms on economic growth and banks performance in Nigeria from 1981 to 2015. Results showed that banking reforms contribute positively to economic growth. Results suggest that banking reforms contribute negatively to banks performance. The study confirms that banking system reforms in Nigeria have dual impact on the economy and banks performance.

In his study on financial development and economic growth, Jung (1986) empirically examined the relationship between financial development and economic growth in fifty-six countries including less developed countries and industrialised countries. Results indicated that financial development causes growth in less developed countries (LDCs), but growth causes finance in industrialised countries.

In their study on role of financial development in economic growth, Xuezhi and Benson (2013) examined the role of financial development and economic growth in Tanzania. Results indicated a strong positive association between the financial services and the economic growth, and two-way Granger causality between them. Results further showed that savings were more important in fostering economic growth as compared to credits/loans. Results also indicated that Savings and Credits Cooperative Societies (SACCoS) facilitate economic development in Tanzania.

In their study on financial development and economic growth, Kargbo and Adamu (2010) investigated the relationship between financial development and economic growth in Sierra Leone. Results indicated that there is an exclusive cointegrating relationship among financial development, investment, real per capita GDP and real deposit rate. Results further showed that financial development has significant effect on economic growth. Results also indicated that investment is the channel through which financial development affects economic growth.

In his study on banking reforms, Udofia (2010) reviewed banking sector reforms in Nigeria, its pitfalls and the stability of the banking system between 1970 and 2008. Results indicated that the outcome of the implementation of the reforms were disappointing because the reforms never impacted positively on the stability of the economy for the period under review.

In their study on the effect of financial liberalization on economic growth in developing countries, Sulaiman et al. (2012) investigated the effect of financial liberalization on the economic growth in Nigeria from 1987 to 2009. Results indicated that there is existence of a long-run equilibrium relationship among the variables and cointegrating equations at 5% significance level. Also, the Error Correction Mechanism showed a very high coefficient of determination (R2). The study concludes that financial liberalization has a growth-stimulating effect on Nigeria.

In their study on the impact of financial liberalization on economic growth in Sub-Saharan Africa, Akinsola and Odhiambo (2017) examined the impact of financial liberalization on economic growth and whether differences in income levels across countries in Sub-Saharan Africa will affect the relative impact of financial liberalization in Sub-Saharan Africa. Results indicated that the coefficient of the financial liberalization variable is positive and significant for Sub-Saharan Africa. However, the financial liberalization dummy sign changed to negative for low-income countries, even though it was statistically insignificant.

2.6 Review of Related Theories

Theoretically, this study is underpinned by the financial liberalisation theory (also called financial repression hypothesis) developed originally by McKinnon (1973) and Shaw (1973); and economic growth theories such as Rostow's five stages of economic growth developed by Rostow (1960), and neo-classical growth theory developed by Solow (1956) and Swan (1956). The dominant theory is the financial liberalization theory, and the other theories are economic growth theories. These theories emphasize the parameters of financial sector reforms and economic growth that have great relevance to this study.

2.6.1 Financial Liberalization Theory

The financial liberalization theory was developed by McKinnon (1973) and Shaw (1973). The background of financial liberalization theory can be derived from financial repression hypothesis developed by McKinnon (1973) and Shaw (1973). Other scholars call it the theory of financial reforms. The financial liberalization theory states that that financial sector policy in developing countries had led to financial repression, therefore it is only financial liberalization policies that would increase savings which in turn spurs investment and induce economic growth. The financial liberalization theory considers the government intervention in the financial markets, and the government role in controlling interest rates and directing credit to priority sectors of the economy in developing countries is a major constraint to savings mobilization, and therefore impedes the holdings of financial assets, capital formation, investment and economic growth (McKinnon 1973; Shaw 1973). Therefore, financial liberalization, which frees interest rates, will shift savings from low and unproductive projects to higher productive investment. According to this theory, financial sector reforms would remove excessive government restrictions on entry of foreign banks, interest rate ceilings and credit controls in order to foster a free market-based and bank-based system mobilizing savings and the allocation of credit to the private sector. The assumption is that the invisible hand through market forces would allocate funds to those projects that have the highest social return. The removal of the visible hand from credit allocation would allow the financial system to accelerate economic growth as long as banks facilitate the allocation of funds to the best users. Furthermore, the removal of controls on interest rate and credit controls/credit ceilings can be expected to greatly enhance the efficiency of financial intermediation by channelling credit to high yielding investment opportunities. Moreover, proponents of financial liberalization theory have argued that increased presence of foreign banks in developing countries would reduce the cost of financial intermediation, increase the availability of credit and foster financial development. The theory claims that competition from foreign banks would increase banking industry efficiency, reduce bank concentration, increase access to credit and reduce the cost of financial intermediation and enhance host countries' access to international capital (McKinnon, 1973; Shaw, 1973).

This theory is relevant to the study because it explains how financial sector reforms affect economic growth. This theory emphasises the parameters of financial sector reform and economic growth that have great relevant to this study. This theory explains (i) the relationship between financial sector reforms and economic growth, (ii) the variables through which financial sector reforms affect economic growth positively in Ghana, and (iii) explains the financial sector reforms and economic growth situation in lower-middle-income economies such as Ghana.

2.6.2 Economic Growth Theories

Economic growth theory suggests that sound and efficient financial systems channel capitals to its most productive uses are beneficial for economic growth. Economic growth theories relevant to this study are Rostow's five stages of economic growth and neo-classical growth theory because a careful perusal and reasoning reveal that other growth theories have their root emphasis on these two theories.

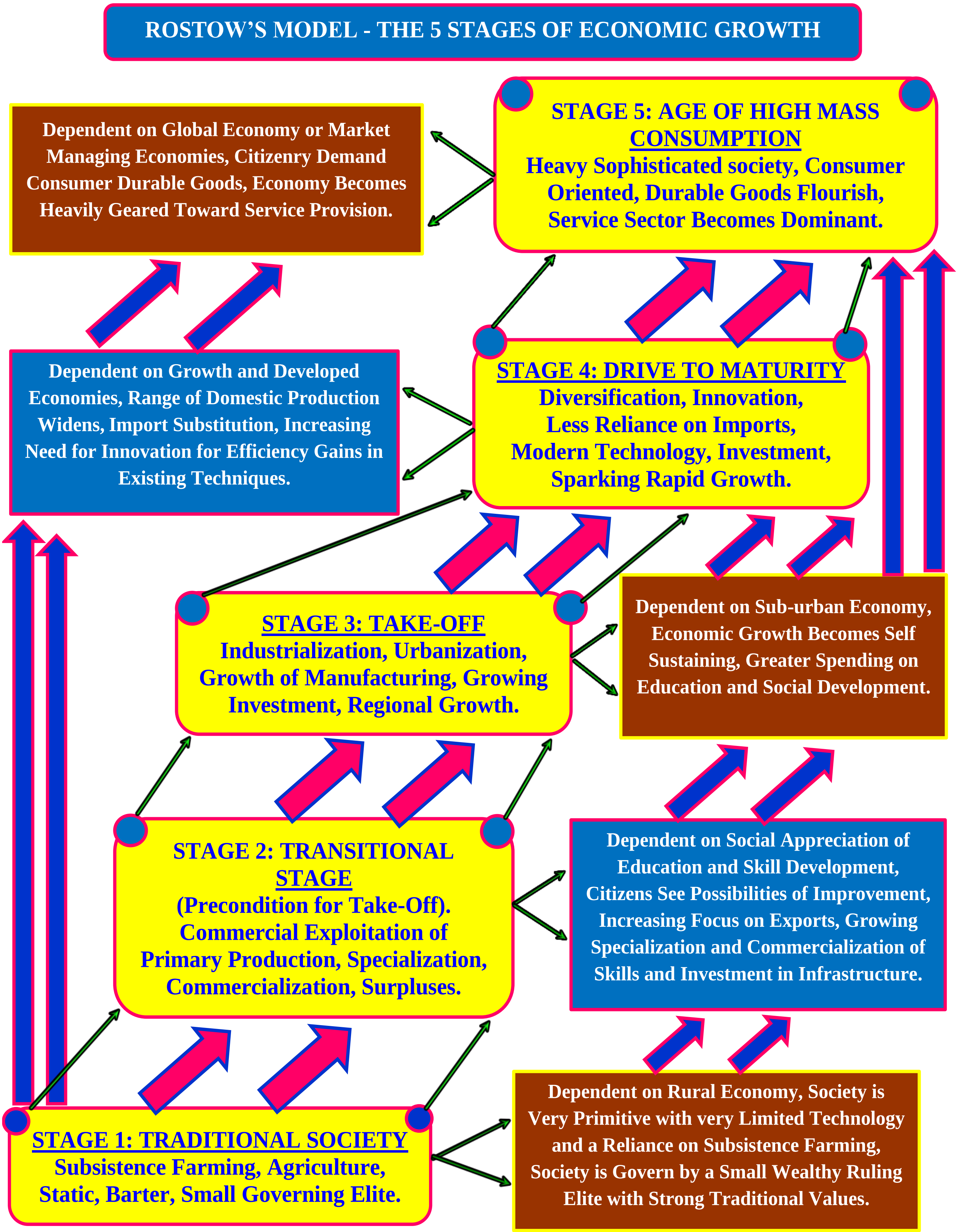
2.6.2.1 Rostow's Five Stages of Economic Growth

The Rostow's five stages of economic growth was developed by Rostow (1960).

The Rostow's five stages of economic growth states that countries passed through five stages of economic growth. Per Rostow (1960), economic growth proceeds from a traditional society to a transitional one (in which the foundations for growth are developed), to the take-off society (in which development accelerates), to the mature society. According to this theory, economic growth begins somewhere between the stage of take-off and the stage of maturity. Per Rostow (1960), economic growth requires substantial investment in capital. According to this theory, for the economies of less developed countries (LDCs) to grow, the right conditions for such investment would have to be created. If aid is given or foreign direct investment (FDI) occurs at stage three, the economy needs to have reached stage two. If the stage two has been reached then injections of investment may lead to rapid economic growth.

This theory is relevant to the study because it explains how financial sector reforms affect economic growth. This theory explains: (i) how developing countries can achieve economic growth, (ii) explains the stages that countries passed through in order to achieve economic growth, and (iii) explains the economic growth situation in lower-middle-income economies such as Ghana.

Figure 2.10 Rostow's Five Stages of Economic Growth Theory



Source: (Author, 2022). Created by Author based on materials drawn from (Rostow, 1960).

2.6.2.2 Neo-Classical Theory of Growth

The Neo-classical theory of growth was developed by Solow (1956) and Swan (1956). This theory represents the initial stage of economic development as it supplies the major channel through which economic activities take place. The theory states that economic growth is the result of three factors namely; labour, capital and technology. The theory states that a sustained increase in capital investment increase the growth rate only temporality. The neo-classical growth theory also emphasis that technological progress has a major influence on economic growth, and economic growth cannot continue without technological advances. The theory also states that the accumulation of capital within an economy, and how people use capital is important for economic growth. The proponents of this theory support the supply-leading hypothesis in the finance-growth nexus, and argue that the activities of the financial institutions serve as a useful tool for increasing the productive capacity of the economy.

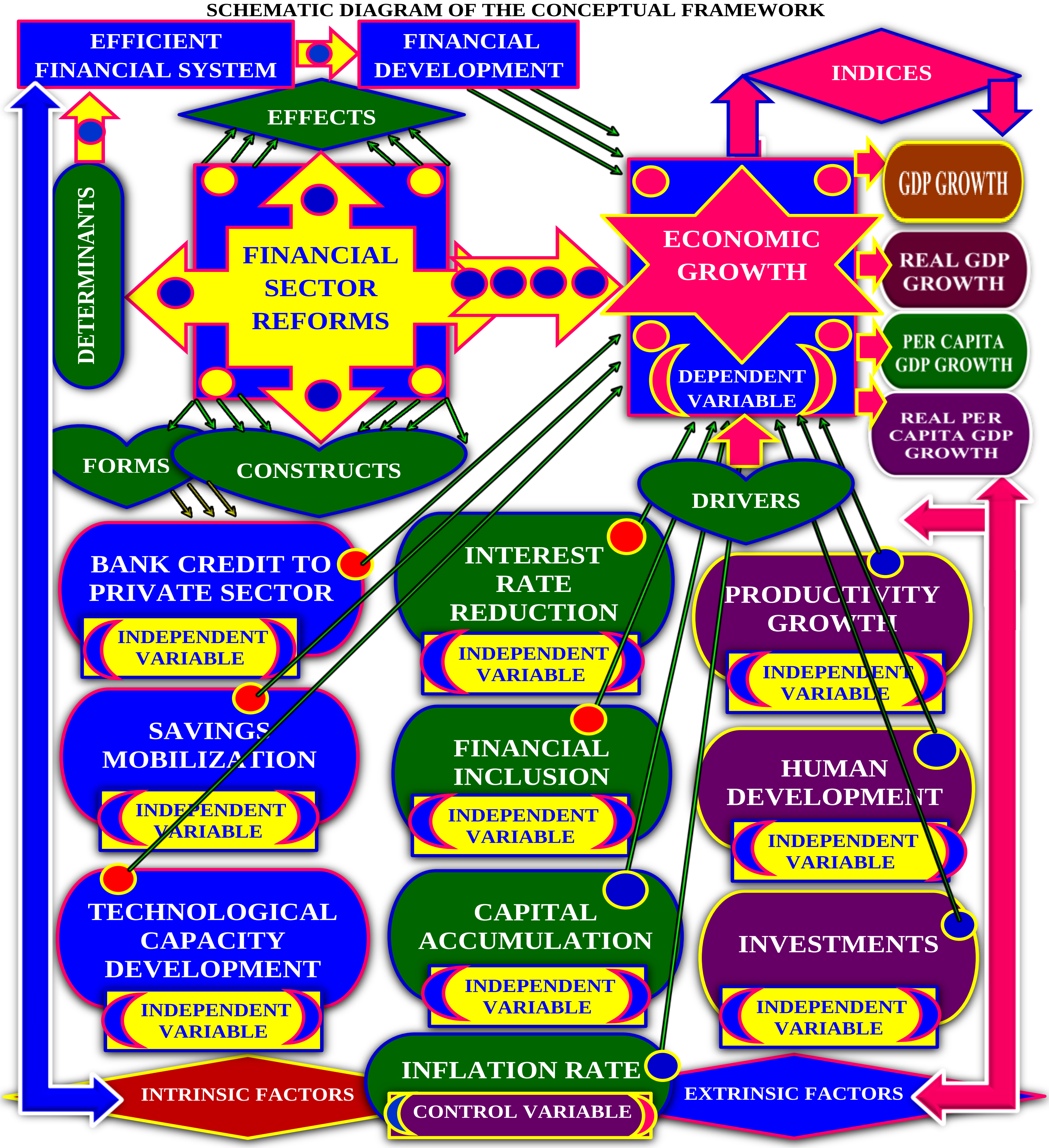
This theory is relevant to the study because it explains how financial sector reforms affect economic growth. This theory explains: (i) the relationship between financial sector reforms and economic growth, (ii) the variables through which financial sector reforms affect economic growth positively in Ghana, and (iii) explains the finance and economic growth situation in lower-middle-income economies such as Ghana.

This space intentionally left blank

2.5 Conceptual Framework of the Study

2.5.1 Schema of Conceptual Framework

Figure 2.11 Schematic Diagram of the Conceptual Framework



Source: (Author, 2022). Created by Author based on materials gleaned from (Mulder, 2017; Levine, 2006; Levine, 2004; Waheed, 2009; Kiani & Ali, 2019).

2.5.2 Narrative of Conceptual Framework

Conceptual framework of this study depicts a visual representation of clearly defined constructs or variables that are systematically organized together to provide a comprehensive understanding and explanation to integration and an expected cause-and-effect relationship in a finance context, incorporating relevant variables that might influence the relationship between financial sector reforms and economic growth. The framework maps out or lays out the major concepts or constructs or variables, along with the relationships of those constructs and key factors that influence the constructs, and presumed relationships among them (Mulder, 2017; Lucumay, 2014). The framework shows exactly variables which the researcher would measure and how the variables are expected to relate to the outcome variable (Mulder, 2017). The conceptual framework is useful for analysing the effects of financial sector reforms on economic growth. In the context of this study, a conceptual framework is developed from the objectives of the study and literature review.

The conceptual framework of this study has two parts to it; (i) Schema, (ii) Narrative.

(i). The Schema is a diagrammatic representation; or a structured graphical outline.

(ii). The Narrative gives the written interpretation or explanation of the framework.

From the schematic diagram, the constructs represent the variables which the researcher would measure. These constructs are the independent variables which attribute directly to the dependant variables when other things remain constant. The determinants are factors that work together to explain the success, strength and ability of financial sector reforms to produce effects that could influence economic growth. The effects are changes which financial sector reforms bring about; these changes are results or consequences of financial sector reforms. Per financial liberalization and economic growth theories, the effects of financial sector reforms include increased efficiency of financial system and greater financial development which in turn stimulate economic growth. Financial system and financial development represent transmission mechanisms that translate the effects of financial sector reforms into increased GDP and overall economic outputs of the whole economy (Economic Growth). The effects of financial sector reforms on economic growth are expected to be driven by the identified independent variables and control variable. However, the control variable would not be measured. In the context of this study, these variables represent different Intrinsic factors originate from within the banking industry (such as bank credit to private sector, savings mobilization, technological capacity development, interest rate reduction, financial inclusion), and Extrinsic factors originate from surrounding environment in which the banking industry operate (such as productivity growth, capital accumulation, human development, investment and inflation rate). In the context of this study, constructs such as bank credit to private sector, savings mobilization, technological capacity development, interest rate reduction, financial inclusion, productivity growth, capital accumulation, human development and investment represent the possible independent variables that are expected to influence the dependent variable (Economic Growth). For example, per financial liberalization theory, an increase in bank credit to private sector would lead to an increase in economic growth. These independent variables also represent the determinants of financial sector reforms. These independent variables also represent the constructs through which financial sector reforms would affect economic growth in Ghana. For example, per Rostow's five stages of economic growth and neo-classic growth theories, the process of increasing capital accumulation through institutionalisation of savings mobilization and investment would foster economic growth.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology employed for the study. It highlights the research design; research methods; research approach; data types and sources; study area; choice of sample (comprising study population; sampling frame; sample size determination and sampling techniques). Besides, it highlights the instrumentation; data collection methods; data processing techniques and data analysis (comprising framework of analysis and techniques of analysis). The chapter concludes with data description and profile of sampled respondents.

3.2 Research Design

The design of this study was determined by the a priori expectations in the hypotheses; the philosophical worldview of the researcher and the paradigm orientation of this study (Creswell, 2009), and these align with and correspond to a quasi-experimental design (Campbell & Stanley, 1986).

3.2.1 Quasi-Experimental Design

In conducting this study, a quasi-experimental design was adequate and suitable to achieve the objective of the study. Hence, a quasi-experimental design was employed for the study to investigate the causal relationships (cause-and-effect relationship) between financial sector reforms and economic growth. In quasi-experimental design, the researcher has limited or no control over extraneous variables. In this study, the application of quasi-experimental design proceeded this way: While using this design, the researcher did not control for some of the independent variable. Instead, the researcher followed the scientific method to establish a cause-and-effect relationship between financial sector reforms and economic growth.

Quasi-experimental design is justified because the research area is in social science research, therefore, a quasi-experimental design was deemed worthy of use since true experimental design was not feasible or impractically possible in social science research. Besides, it was appropriate choice because the researcher gathered data quickly from natural settings that helps to generalize the findings to real-life situations in an external valid way. Furthermore, there is high external validity in quasi-experimental design, therefore researcher can confidently draw conclusions to other populations or settings. More so, none of the independent variables in the study require manipulation and random assignment of subjects to either a treatment or a control group. Besides, the study analyses cause-and-effect relationships between financial sector reforms and economic growth, and it is easier to estimate the true effect of the variable of interest on the outcome of interest. Moreover, beyond discovering causal relationships, a quasi-experimental design further seeks out how much cause would produce how much effect; in technical terms, how the independent variables affect the dependent variable (Barnes et al, 1994-2021). In addition, it allows the researcher to take advantage of real-world opportunities in social setting. It also allows the researcher to enhance external validity. Moreover, lack of random assignment in quasi-experimental design allow the study to be more feasible. Finally, it overcomes the various limitations of the true experimental and non-experimental correlational designs.

3.2.2 Research Method

In this study, a scientific method and quantitative method were employed.

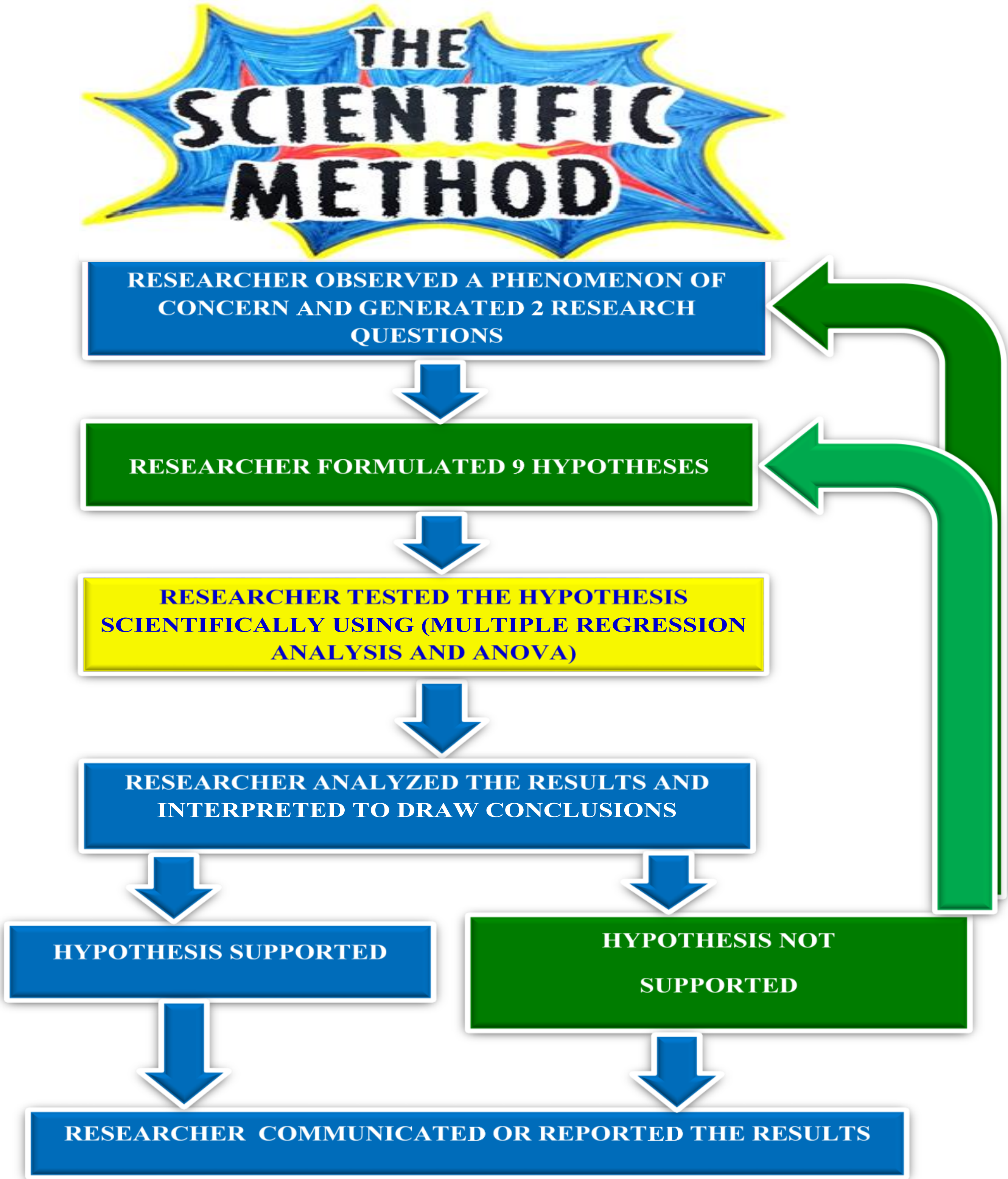
3.2.2.1 Scientific Method

In conducting this study, a scientific method was adequate and suitable to achieve the objective of the study. Hence, a scientific method was employed for the study to examine the causal relationships (cause-and-effect relationship) between financial sector reforms and economic growth. In this study, the application of scientific method proceeded this way: While using this method, the researcher followed formal procedures to analyze the cause-and-effect relationship between financial sector reforms and economic growth variables.

Scientific method is justified because it is the formal procedure for all acceptable scientific investigations (Summers, 1998). More so, it underlies how research is conducted (Summers, 1998). Besides, the basis of the relationship between financial sector reforms and economic growth is derived from scientific method. Moreover, the study analyzed the cause-and-effect relationship between financial sector reforms and economic growth variables. Finally, a scientific method was deemed worthy of use so that the study can be replicated.

In this study, the application of scientific method proceeded this way: While using this method, the researcher followed five formal steps provided by Summers (1998), which is depicted as follows: Step 1: Observe a Phenomenon of Concern and Generate Research Questions; Step 2: Formulate Hypothesis; Step 3: Test Hypothesis Scientifically; Step 4: Analyzed the Results and Interpret to Draw Conclusion; Step 5: Communicate or Report the Results.

Figure 3.1 Steps in the Scientific Method.



Source: (Field work, 2022). Created by Author based on materials drawn from (Summers, 1998).

3.2.2.2 Quantitative Method

In conducting this study, a quantitative method was adequate and suitable to achieve the objective of the study. Hence, a quantitative method was employed for the study to analyse the causal relationships (cause-and-effect relationship) between financial sector reforms and economic growth. In this study, the application of quantitative method proceeded this way: While using this method, the researcher stated a priori expectation about the results of the study in one or more research hypotheses before conducting the study and followed a deductive approach and a scientific method to analyse cause-and-effect relationships between financial sector reforms and economic growth. Quantitative method is justified because the philosophical worldview of the researcher and the paradigm orientation of this study (positivism/positivist) aligns with and corresponds to a quantitative method (Creswell, 2009). Besides, it permits the use of appropriate statistical method to analyse data, and the results are based on larger sample sizes that are representative of the population. More so, the study used numerical data, measured variables, and tested hypothesis based on theories in order to maximize the reliability and validity of the data and study results. Besides, it prevents the researcher from introducing her bias into the analysis of the study (Ivankova & Stick, 2005). In addition, it allows the researcher freedom to choose which variables to investigate, and the use of closed-ended questionnaire instruments, and it yields more objective and highly reliable and valid results than qualitative and mixed methods. Furthermore, it is cheaper than qualitative and mixed methods, and it takes less time to collect and analyse data. Besides, it guarantees a high level of standardization, validity and reliability, and it makes it much easier to compare the findings obtained and generalize to a larger population (Healey, 2009). Moreover, quantitative data can be interpreted with statistical analysis, and since statistics are based on the principles of mathematics, a quantitative research method is viewed as scientifically objective, and rational (McLeod, 2019). Additionally, quantitative data is based on measured values and can be checked by others for replication because numerical data is less open to ambiguities of interpretation. Even though Babbie (2013) stressed on the fact that quantitative researches are limited in that; not all variables can be represented in numeric form rendering the results incomplete; Dudwick et al. (2006) account that, since quantitative research method follow certain procedures, errors are reduced. Finally, it overcomes the weaknesses of qualitative research and mixed methods.

3.2.3 Research Approach

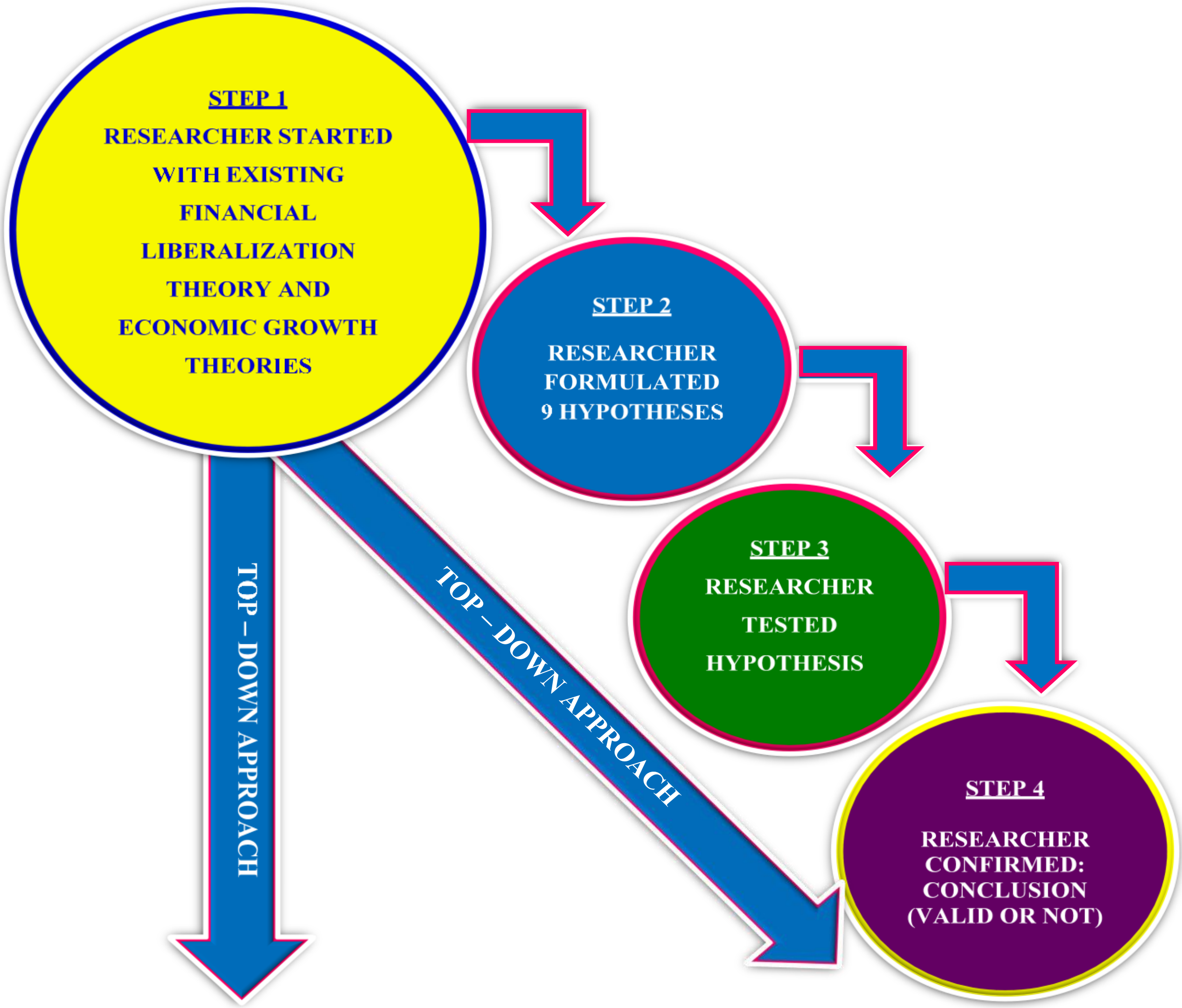
3.2.3.1 Deductive Approach

In conducting this study, a deductive approach was adequate and suitable to achieve the objective of the study. Hence, in the realm of financial sector reforms and economic growth relationships, this study adopted a deductive approach. In this study, the application of deductive approach proceeded this way: While using this approach, the researcher used deductive reasoning from general principles to arrive at specific conclusions (from cause-to-effect), or deductive reasoning from a general principle to the expected effects. In addition, while using this approach, the researcher followed formal procedures, scientific method, empiricism, and a top-down approach with efforts to extend and refine existing paradigms. Besides, while using this approach, the researcher used a predictive model to generate testable hypotheses, and then, collected data about specific events to confirm or refute the hypotheses generated from the model. Deductive approach is justified because the study is driven by theories (for example, financial liberalization theory and economic growth theories), therefore, reasoning deductively means testing these theories. Besides, the strength of quantitative research method which this study employed is derived from the deductive approach. More so, the study seeks to either test or confirm already existing theory in the form of hypothesis or refute already existing theoretical framework. Furthermore, the study seeks to generalize from general principles to more specific conclusions.

In this study, the application of deducted approach proceeded this way: While using this approach, the researcher followed four formal steps provided by Streefkerk (2019), which is depicted as follows: Step 1: Start with Existing Theory, Step 2: Formulate Hypothesis, Step 3: Test Hypothesis, Step 4: Confirm and Conclude

Figure 3.2 Steps in Deductive Approach

Steps in Deductive Approach



Source: (Field work, 2022). Created by Author based on materials drawn from (Streefkerk, 2019).

3.3 Data Types and Sources

This study was conducted using some reasonable quantity of both primary and secondary data. The quality and quantity of primary and secondary data used were adequate and suitable to achieve the objective of the study. The primary data used in this study include; perceptions of respondents; demographic information such as age of respondents and sex or gender of respondents. Primary data for the study were sourced from employees and customers of three universal banks (Ecobank Ghana Limited, GCB Bank Limited, and Absa Bank Ghana Limited) in Kumasi Metropolis, Ghana.

Primary data are justified because secondary data alone were insufficient for the study, therefore, primary data were used to supplement and establish the authenticity of the secondary data in order to maximize the accuracy and reliability of the study. Moreover, they are useful for current study as well as for future studies (Kumar, 2020). Besides, the researcher was interested in original first-hand data specific to the research objectives with control over how it is generated.

Secondary data used in the study include monetary values and macroeconomic indicators. Secondary data for the study were sourced from Bank of Ghana Report (www.bog.gov.gh); Ecobank Ghana Annual Report (http://www.ecobank.com/gh; ABSA Bank Ghana Annual Report (http://www.absa.com.gh); GCB Bank Annual Report (https://www.gcbbank.com.gh/; Ministry of finance; Ghana Stock Exchange (www.gse.com.gh); Financial statements (income statement and balance sheets) of the sampled universal banks from 2017 to 2019; Ghana Statistical Service (https://www.statsghana.gov.gh); The Global economy; World Bank Group (2019); IMF, 2016). World Bank Development Indicators (https://www.worldbank.org/ghana; Global Financial Development Report, 2019. Secondary data are justified because primary data alone were insufficient for the study, therefore, secondary data were used to supplement the primary data. Besides, in economic sense, they are more efficient, quick to collect and cheaper or less expensive than primary data. Furthermore, they add insight to the study. Finally, they save time.

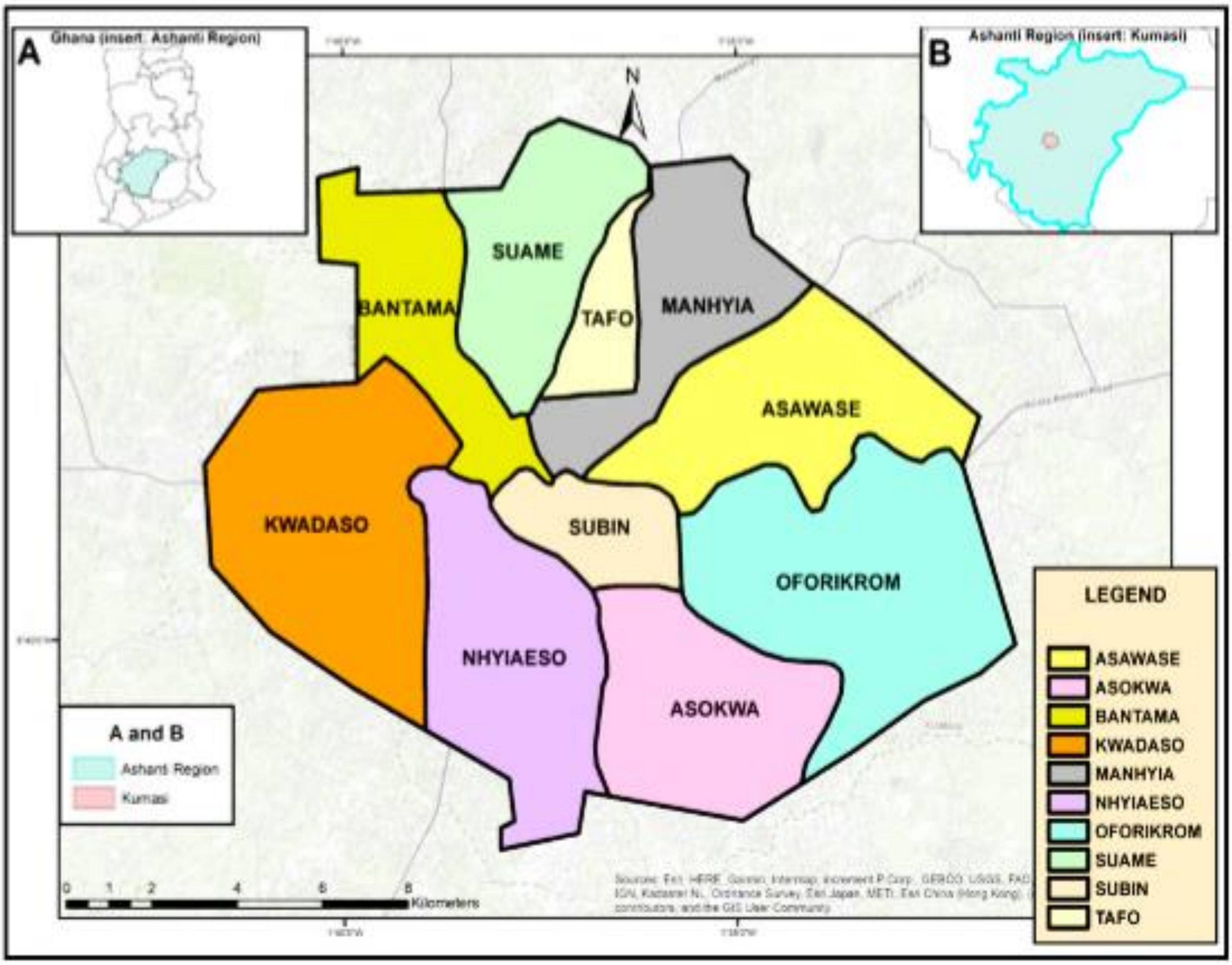
3.3.1 Cross-Sectional Data

This study was conducted using some reasonable quantity of cross-sectional data. The quality and quantity of cross-sectional data used were adequate and suitable to achieve the objective of the study. For this study, cross sectional data were collected from all cross-sectional survey study participants at a specific point in time, and observations which come from different groups or individuals at a single point of time a statistical unit (Quentin, 2019). For this study, some reasonable quantity of cross-sectional data were sourced from study participants from universal banks' employees and customers in Kumasi Metropolis, Ghana (Questionnaire Administration).

Cross-sectional data were justified because the study involved a large-scale cross-sectional survey focusing on the current prevalence opinions or perceptions and feedback of the universal banks' employees and customers at a specific point in time. Furthermore, they provide snapshot of study population at a given point than time series and panel data (longitudinal data) (White, 2020). Besides, cross-sectional data were the best choice for practical reasons, for instance, the researcher only has limited time and money to collect a cross-sectional data, and the only data that the researcher would need to answer the research question was to be collected at a single point in time (Thomas, 2020). More so, they are cheaper, less time-consuming and easy to collect data. Finally, they that can be used as a basis for further research than longitudinal data and provides useful insights into a population's characteristics to identify correlations.

3.4 Study Area

Figure 3.3 Study Area: Map of Kumasi Metropolitan Area with its Sub-metropolitan divisions.



Source: Adapted from Frimpong & Molkenthin (2021).

The study was conducted in Kumasi Metropolitan Area, Ghana.

3.4.1 General Statistics of the Study Area:

- ❑ **METROPOLITAN AREA:** Kumasi Metropolitan Area is one of the 260 Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana, and is one of the 43 districts in the Ashanti Region.
- ❑ **COMMUNITIES:** There are 103 communities.
- ❑ **SUB-METROPOLITAN DISTRICTS**: Ten (10)
- ❑ **MUNICIPAL COUNCILS**: Five (5)

- **CITY:** Kumasi (Regional Capital)
- **GEOGRAPHICAL LOCATION:** Transitional Forest Zone; 270km North of Accra. About 500 miles north of the Equator.
- **LATITUDE:** 6.35º N – 6.40º S
- **LONGITUDE:** 1.30º W – 1.35º E
- **DISTRICTS:** Nhyiaeso, Subin, Manhyia South, Manhyia North, Bantama
- **REGION:** Ashanti in southern Ghana.
- **TOTAL POPULATION SIZE:** 443,981 Representing 8.2% of total Ashanti Region population of 5,440,463 (2021 Population & Housing Census Report)
- **MALES: 213,662** Representing 48.1% of total population of 443,981 (2021 Population & Housing Census Report)
- **FEMALES:** 230,319 Representing 51.9% of total population of 443,981 (2021 Population & Housing Census Report)
- **GROWTH RATE: 3.9%**
- **POPULATION DENSITY (Persons per sq. Km):** 6,542.6
- **AVERAGE HOUSEHOLD SIZE:** 3.0
- **NUMBER OF HOUSEHOLDS:** 137,068
- **HOUSEHOLD POPULATION:** 413,561
- **NON-HOUSEHOLD POPULATION:** 30,420
- **TEMPERATURE:** Ranges between 23.5-33.0 Degrees Celsius
- **RAINFALL:** 1484mm Annual Mean (Bimodal Rainfall Distribution, Mid-March- July).
- **TOTAL LAND AREA:** 68 sq./km.
- **MOUNTAIN/RANGES/ELEVATION:** 250 – 300 metres above sea level.
- **RIVERS:** Oda river (Major river), other rivers (Subin river and Susanso river)
- **ECONOMIC ACTIVITIES:** Service, Industry and Agriculture

3.4.2 Service Sector in Kumasi Metropolis, Ghana

The service sector is the economic backbone of Kumasi Metropolis, Ghana. Majority of the economically active labour force (72 percent) are employed in this sector. This sector has made Kumasi Metropolis a hub for commercial activities in the country. The activities carried out by players in this sector are wholesale and retail in nature. They cover all kinds of commodities ranging from food stuffs, clothing, building materials, office and educational stationeries to herbal and orthodox medicines. The need for ancillary services to support economic activities in the Metropolis has attracted other relevant service providers. The banking and insurance sector coupled with other relevant institutions have contributed immensely in creating a conducive environment for smooth running of business transactions in Kumasi Metropolis. Another group of service provider that have contributed tremendously to the creation of productive employment ventures and revenue generation in the Metropolis are the Telecommunication Sector, Transport Sector, Hotels, Restaurants and Traditional caterers (chop bars), hairdressers and dressmakers/tailors.

3.4.3 Industrial Sector in Kumasi Metropolis, Ghana

Kumasi Metropolis is a hub for scattered pockets of industrial activities in the country. Notable among them are the agglomerated small-scale mechanical garages, wood processing companies and food processing companies as well as construction firms. This sector has contributed quite significantly to productive employment creation (23%) and revenue generation. Suame Magazine (the biggest mechanical garage in West Africa), and Asafo mechanical garages have impacted positively on productive employment creation and revenue generation in Kumasi Metropolis. Suame Magazine, which is located at the northern section of Kumasi Metropolis, is a hub of agglomerated small-scale mechanical garages that both manufacture vehicle parts and provide other automobile repairs, small scale machine manufacturing and mechanical services not only to the Metropolis but to the whole West Africa sub-region. Its presence in the Metropolis has made Kumasi a well-known mechanical garage in the sub-region of West Africa. Other industrial centres that have contributed immensely to job creation and sustainable source of income for a section of the active labour force in the Metropolis are the beverage processing industries. Notable among them are the Guinness Ghana Brewery Limited (GGBL), and the Coca Cola Bottling Company. In addition to these large-scale companies are micro, small and medium-scale enterprises that produce fruit juice and fresh yoghurt among others. Timber processing firms and plywood manufacturing companies located along the Asokwa; Ahinsan; and Kaase stretch are other industrial centres that have significantly contributed to sustainable livelihood in Kumasi Metropolis by providing productive employment and revenue. The semi-finished products of these companies are sold to domestic furniture workers and exported to generate foreign exchange for the country.

Figure 3.4 Ahinsan Industrial Area in Kumasi

Source: (Field work, 2022).

Another area of interest is the handicraft industry which comprises of basket weavers, potters, wood carvers and cane weavers. Although they are spread metro-wide, majority of them are concentrated at Ahwia, which is located at the northern section of Kumasi Metropolis. Ahwiaa is extremely famous for its wood crafting and handmade souvenirs.

Figure 3.5 Ahwiaa Wood Crafting, Carving and Handmade Souvenirs in Kumasi

Source: (Field work, 2022).

3.4.4 Agricultural Sector in Kumasi Metropolis, Ghana

Agriculture in Kumasi Metropolis consists of farming, aquaculture, horticulture and some animal rearing. Farming is limited to small scale staple food crops production including maize, plantain, cocoyam, cassava and vegetables (tomatoes, pepper, carrots, cabbage etc.), in the peri-urban areas. Most of the foodstuffs are brought in from the adjoining districts as well as distant areas such as Techiman, Nkoranza and Ejura (Dapaah, 2015). In terms of cash crops, Cocoa is the main cash crop cultivated in the peri-urban areas. At the time of the field work, there were lots of Cocoa fruits rotting on the ground, but the trees were also full of them as well.

Figure 3.6 Cocoa Trees, Cocoa Fruits and Beans in Kumasi Metropolis, Ghana

Source: (Field work, 2022).

3.4.5 Justification for Conducting the Study in Kumasi Metropolis

Kumasi Metropolitan Area is justified because of the availability of useful data to answer the research questions. Besides, there are high concentration of banks. All the 23 Universal banks in Ghana have their regional head offices and branches spread across the length and breadth of the Metropolis. Besides, there are accelerated economic development; massive infrastructural development, enormous population growth and economic activities in the Metropolis. More so, its unique central position. It is a trade hub, manufacturing and a commercial centre (Kumasi Kejetia Market regarded as the biggest market in West Africa. Suame Magazine also regarded as the busiest automobile repair and assembling in West Africa, and it is the capital city of Ashanti Region. Furthermore, the researcher is a big proponent of supporting local tradition, and Kumasi is a great place to enjoy more unique sights, traditions and culture in Ghana. Aside from the unique sights, traditions and culture, Kumasi is the most culturally intriguing city in Ghana. Kumasi is also the most popular city in Ghana (Dapaah, 2015). The city has an enigmatic air to it, and you can feel the pride of its people everywhere you go. The people, in general, are quite warm and friendly. Indeed, Kumasi Metropolitan Area in general, and Kumasi in particular, really is a city made for travelers, tourists and researchers. Besides, Kumasi Metropolis is the most populous district in the Ashanti Region. Finally, Kumasi is the native city and hometown of the researcher, and has special interest in its socio-economic development, economic growth and policy implications of financial sector reforms.

3.5 Choice of Sample

This subsection discusses the study population (s), sampling frame, sample size determination and sampling techniques.

3.5.1 Population (s)

For this study, the study population comprise of all the registered universal banks; all employees; all Chief Financial Officers (CFOs); all Chief Operating Officers (COOs); all Human Resources Heads; all HR Advisors; all Tellers; all Branch Managers; all Credit Officers); and all Customers in Kumasi Municipal Area. Verified from the list of registered universal banks with the Bank of Ghana and Kumasi Metropolis, the Metropolis has 23 registered universal banks. For this study, the targeted population was 144 employees and customers comprising 3 Chief Financial Officers (CFOs); 3 Chief Operating Officers (COOs); 3 HR Heads; 3 HR Advisors; 33 Tellers; 33 Branch Managers; 33 Credit Officers, 33 Customers and 3 registered universal banks representing a subgroup of individuals taken from the whole population who share a common characteristic or meet condition of interest defined by the eligibility criteria (Babbie, 2013). It is out of this targeted population, that the sample was drawn. Although the entire population did not partake in the study, the results from the respondents of the study was generalized to the entire population.

This space intentionally left blank

3.5.2 Sampling Frame

In conducting this study, a sampling frame was used to demonstrate the actual list of employees, customers and registered universal banks in Kumasi municipality that the sample was drawn from. Ideally, it includes the entire 144 targeted population and 23 universal banks in Kumasi Metropolitan Area. From this list, the researcher sampled some employees, customers and universal banks.

Figure 3.7 Sampling Frame

Sampling Frame

3 Chief Financial Officers (CFOs) from 23 universal banks

3 Chief Operating Officers (COOs) from 23 universal banks

3 HR Heads from 23 universal banks

3 HR Advisors from 23 universal banks

33 Tellers from 23 universal banks

33 Branch Managers from 23 universal banks

33 Credit Officers from 23 universal banks

33 Customers from 23 universal banks

23 Universal Banks in Kumasi Metropolitan Area:

(i) Absa Bank Ghana Limited; (ii) Access Bank Ghana Plc;

(iii) Agricultural Development Bank of Ghana; (iv) Bank of Africa Ghana Limited;

(v) Cal Bank Limited; (vi) Consolidated Bank Ghana Limited;

(vii) Ecobank Ghana Limited; (viii) FBN Bank Ghana Limited;

(ix) Fidelity Bank Ghana Limited; (x) First Atlantic Bank Limited;

(xi) First National Bank Ghana; (xii) GCB Bank Limited;

(xiii) Guaranty Trust Bank Ghana Limited; (xiv) Prudential Bank Limited;

(xv) National Investment Bank Limited; (xvi) OmniBSIC Bank Ghana Limited;

(xvii) Republic Bank Ghana Limited; (xviii) Société Générale Ghana Limited;

(xix) Stanbic Bank Ghana Limited; (xx) Zenith Bank Ghana Limited;

(xxi) Standard Chartered Bank Ghana Limited;

(xxii) United Bank for Africa Ghana Limited;

(xxiii) Universal Merchant Bank Limited.

Source: (Field work, 2022)

3.5.3 Sample Size Determination

Except the 12 key informants selected purposively, sampling is drawn as per Yamane (1967) formula to determine the representative sample size. The reason for using this formula is that it is the most effective, efficient, simplified and widely applied formula in determining sample size in research. The sample size was determined using the formula provided by Yamane (1967), which is depicted as follows:

$$n = \frac{N}{1 + N(\alpha)2}$$

Where:

n = the sample

N = the population of the study

α = the level of significance (set at 0.05 for this study)

To arrive at the sample size, the above formula was used by substituting with known quantities as follows:

For the Tellers, there were 33 Tellers targeted, therefore, sample size was:

$$n = \frac{N}{1 + N(\alpha)2} = 33/\ (1+33 \text{ x } 0.0025) = \underline{30} \text{ Tellers}$$

For the Branch Managers, there were 33 Branch Managers targeted, therefore, sample size was:

$$n = \frac{N}{1 + N(\alpha)2} = 33/\ (1+33 \text{ x } 0.0025) = \underline{30} \text{ Branch Managers}$$

For the Credit Officers, there were 33 Credit Officers targeted, therefore, sample size was:

$$n = \frac{N}{1 + N(\alpha)2} = 33/\ (1+33 \text{ x } 0.0025) = \underline{30} \text{ Credit Officers}$$

For the Customers, there were 33 Customers targeted, therefore, sample size was:

$$n = \frac{N}{1 + N(\alpha)2} = 33/\ (1+33 \text{ x } 0.0025) = \underline{30} \text{ Customers}$$

However, 3 universal banks and 12 study participants (3 Chief Financial Officers (CFOs); 3 Chief Operating Officers (COOs); 3 Human Resources Heads; and 3 HR Advisors) were selected purposively. **Therefore, the actual sample size was:**

3 Chief Financial Officers (CFOs) - 1 from each of the 3 universal banks

3 Chief Operating Officers (COOs) - 1 from each of the 3 universal banks

3 Human Resources Heads - 1 from each of the 3 universal banks

3 HR Advisors - 1 from each of the 3 universal banks

30 Tellers - 10 from each of the 3 universal banks

30 Branch Managers - 10 from each of the 3 universal banks

30 Credit Officers - 10 from each of the 3 universal banks

30 Customers - 10 from each of the 3 universal banks

SAMPLE SIZE = 132 employees and customers of 3 universal banks (Ecobank Ghana Limited, GCB Bank Limited, and Absa Bank Ghana Limited).

The sample size of 132 employees and customers from 3 universal banks was adequate and appropriate for the study because it is large, and the large sample size of 132 permitted the use of large sample statistical procedures and analysis that might not be possible with smaller sample size.

3.5.4 Sampling Techniques

In conducting this study, it was impractical to reach each member of the targeted population in Kumasi Metropolitan Area. Hence, the researcher used sampling process to identify a subset of the population that provides an accurate reflection on the whole (Quentin, 2019). The researcher used both stratified random sampling (probability) and purposive (nonprobability) sampling techniques to select participants. Purposive sampling technique was employed to select 3 universal banks and 12 key informants for the study based on their ability to meet the inclusion criteria. Purposive sampling technique is justified for unique reasons; (for example, meeting the inclusion criteria). Besides, the researcher was interested to include specific universal banks into the study that meet the inclusion criteria set for the study (their stance in the 5-star bank concentration in Ghana's banking industry, their level of progress in technology and innovations and their unique contributions to Ghana's economy). Moreover, the researcher planned to include participants with experience and knowledgeable expertise within the banking industry that would be appropriate for the study that would best enable the researcher to answer the research questions. More so, it is not every staff of the Commercial bank that can provide the kind of data needed for the study. Hence, a purposive sampling technique was used to select participants who can provide the required data needed for the study. Finally, it avoids irrelevant participants; it prevents unnecessary and irrelevant participants entering into the sample per chance.

Stratified sampling technique was employed to select 120 participants for the study. In this study, the application of stratified sampling technique proceeded this way: While using this sampling technique, employees and customers were selected to reflect the proportion in which they appear in population. Stratified sampling technique is justified because it guarantees equal representation of Tellers; Branch Managers; Credit Officers and Customers in the population at the right proportions. Besides, it reduces bias. Besides, it ensures that every characteristic is proportionally represented in the sample. As per Kombo and Tromp (2006), stratified random sampling technique enables more precise estimates for each stratum (group) and gets better estimates of the whole sample. Finally, the risk of bias is low especially, if the data comes from the respondents.

3.6 Instrumentation

As there were a lot of activities or tasks involved in conducting this study, two separate data collection instruments were crafted. These data collection instruments include: Observation Checklist and Survey Questionnaire.

#1. Observation Checklist: The type of observation checklist used in this study was an action checklist. The purpose of the observation checklist was to provide a guide to the researcher about the steps to follow and to make the observation more structured. It was designed to be more convenient for the researcher to follow to conduct a useful and effective observation. **#2. Survey Questionnaire:** The purpose of the survey questionnaire was to collect data such as age, sex, opinions or perceptions and feedback from all survey participants for dominant variables to answer the research questions. It intended to obtain the precise expectations that the universal banks which experienced the third generation financial sector reforms had in their mind. The survey questionnaire was structured, standardized, and closed-ended. The survey questionnaire asked respondents to rate the integrated appraisals of the state of third generation financial sector reforms and economic growth. The survey questionnaire was designed using an 11-point continuous rating scale ranging from 0 to 10, with 5 being the true mid-point average. It was designed to be more convenient for the respondents to answer the questions. Survey questionnaire is justified because it is the most commonly used instrument in gathering and measuring primary data Besides, it presents the same questions to all respondents thereby providing a comparable basis for assessment. The questionnaire method is also appropriate because of its convenience in given the respondents, the independence and free will to express their thoughts and opinions.

3.7 Pilot Study

In conducting this study, a pilot study was conducted prior to the main study.

In this study, pilot study proceeded this way: This study adopted a multi-stage testing process that integrated some procedures and techniques for pre-testing of the of the survey questionnaire with 16 respondents who had the same characteristics of the respondents in the main study. Before the last questionnaires were distributed, a pilot test of 16 questionnaires were distributed among customers and employees at different levels. The questionnaires were administered twice to different groups of respondents and the findings confirm similar results. The first pilot study was conducted on 4^{th} May 2022 in ten selected areas by distributing the completed survey questionnaire to 16 respondents from the targeted population in Kumasi Metropolitan Area who were part of the main study because Babbie (2013) recommends that the pilot study should involve about 10% of the main sample size. The second pilot study was conducted on 7^{th} May 2022 in ten selected areas by distributing the completed survey questionnaire to 16 respondents from the target population in Kumasi Metropolitan Area who were part of the main study. Modifications and necessary adjustments were made to those portions that were considered unclear, inaccurate, inappropriate and misleading. This helped the researcher to refine and rewrite the questions and test the clarity of the survey questionnaire. In essence, the pre-test was done to measure the authenticity and reliability of the instrument to ensure that it was appropriate for the study. Cronbach alpha coefficient was used to test for internal consistency. The alpha reliability was in the acceptable range, well above the 0.70 threshold or cut-off (Oppenheim, 1978; Creswell, 2009). Out of the 16 pilot survey questionnaires sent out, a total of 15 completed survey questionnaires were received from pilot survey respondents. This represents a response rate of 93.75 percent, which is considered adequate, as it is higher than 80 percent indicated by Babbie (2013) and above 70 percent indicated by Quentin (2019). The responses enabled the researcher to revise the survey questionnaire for use in the main survey. Experience from the pre-tests was used to improve the final survey questionnaire (Foddy, 1993). After collating the input from all the respondents, the survey questionnaire was finalized for data collection.

3.8 Data Collection

In this study, data collection proceeded this way: An industry level data and a firm level data were collected from Bank of Ghana and stakeholders of universal banks. Primary data and secondary data were collected simultaneously. Primary data for this study were collected from universal banks stakeholders in Kumasi Metropolis, Ghana. The first primary data collection was undertaking on 10^{th} May 2022, exactly 5 years after the financial sector reforms began. Hence, the study provides a more accurate picture of reality on the ground over a period when the financial system of the economy was not in a state of high vagueness. This study utilized 3 quantitative data collection methods.

3.8.1 Data collection Method

3.8.1.1 Data Collection Method # 1: Survey Method

Figure 3.8 Survey Method

Source: (Field work, 2022).

In collecting a first primary data for this study, a survey method was adequate and suitable to achieve the objective of the study. Hence, a survey method was employed to collect primary data for the study. The purpose of the survey was to collect data such as age, sex, opinions or perceptions and feedback from all survey participants for dominant variables to answer the research questions. Besides, it was intended to ascertain the actual situation on the ground. Moreover, it was intended to establish the authenticity of the secondary data. In this study, the application of survey method proceeded this way: While using this method, the researcher selected the right survey participants and the survey respondents were asked to rate the integrated appraisals of the state of financial sector reforms and economic growth in Kumasi Metropolis.

3.8.1.1.1 Types of Survey Conducted

In this study, two types of survey were conducted. Namely; a self-administered paper and hand-delivered survey, and a cross-sectional survey. The above types of survey were combined and conducted together.

3.8.1.1.2 Self-Administered Paper and Hand-Delivered Survey

Figure 3.9 Self-Administered Paper and Hand-Delivered Survey

Source: (Field work, 2022).

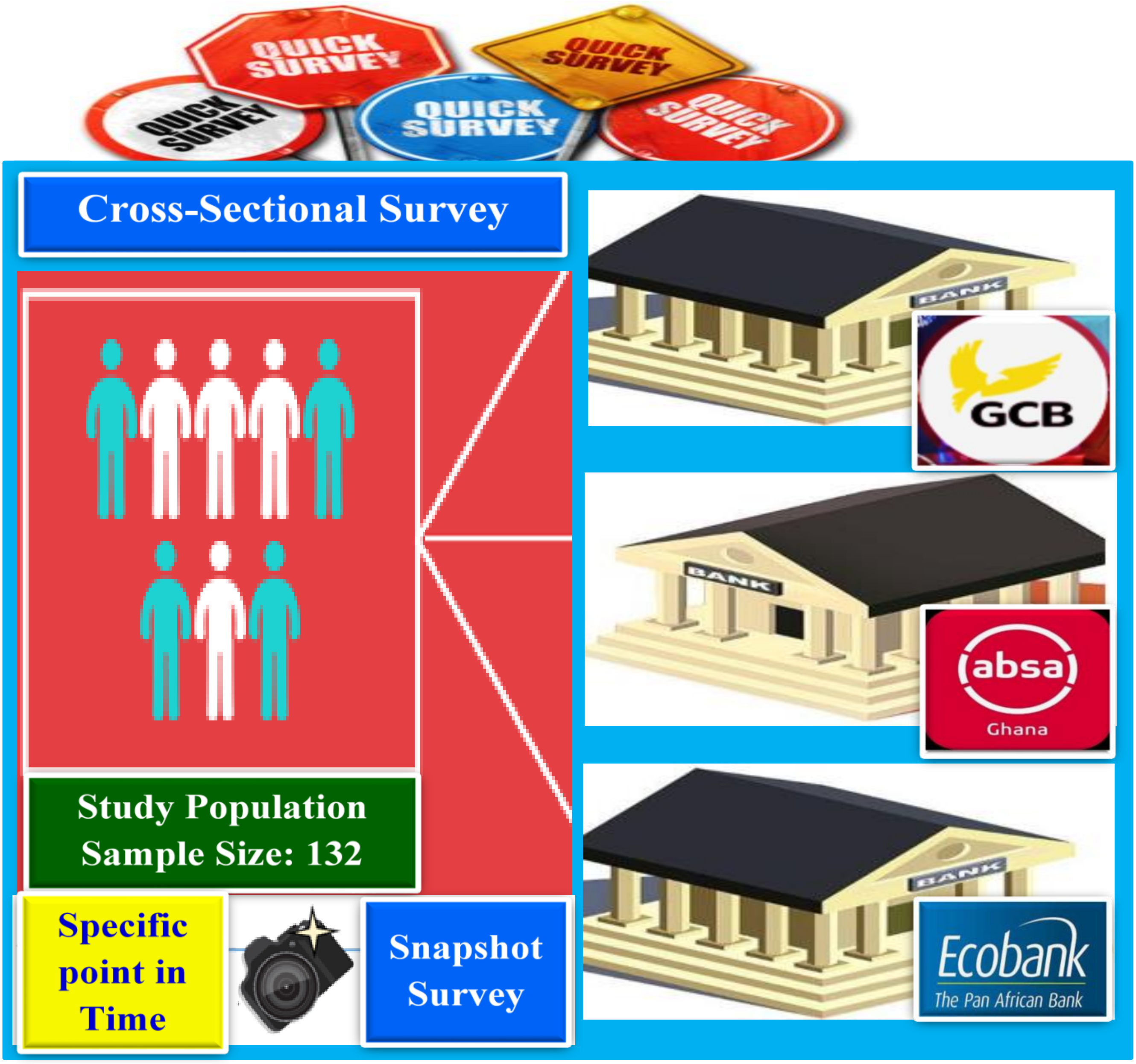
In conducting a self-administered paper and hand-delivered survey, the respondents were given the opportunity to administer the survey questionnaires by themselves without any interference from the researcher. The researcher was entirely absent when the respondents were filling out the hard documents paper survey questionnaires. The time allocated to the survey questionnaire administration was 30 minutes. Indeed, the survey was successful.

3.8.1.1.3 Cross-Sectional Survey

A cross-sectional survey involving study participants from GCB Bank LTD, Ecobank Ghana, LTD and Absa Bank Ghana LTG was conducted at specific point in time.

Figure 3.10 Cross-Sectional Survey

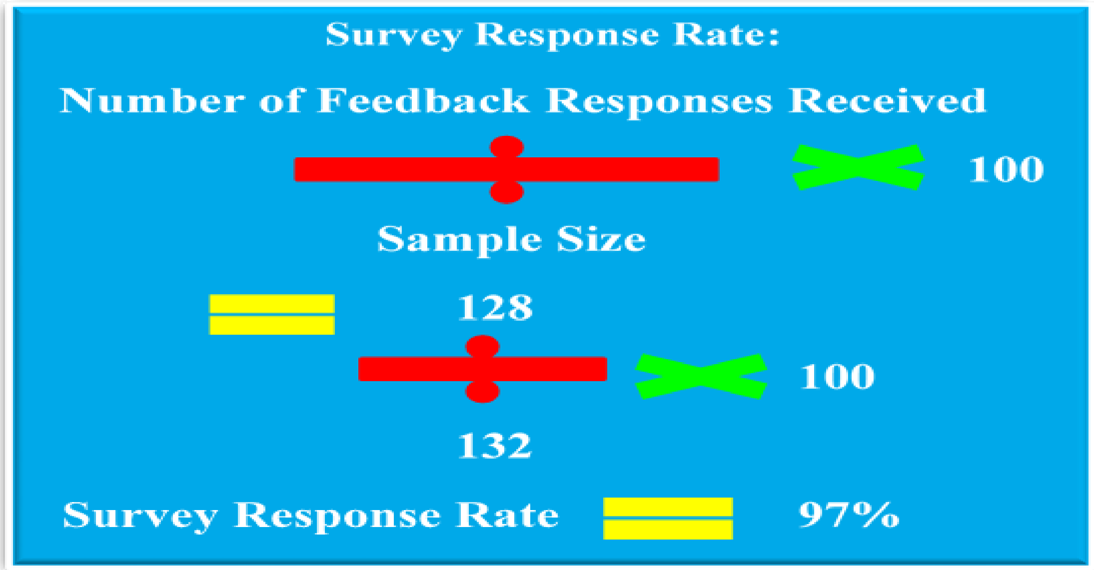
CROSS-SECTIONAL SURVEY



Source: (Field work, 2022). Created by Author based on materials drawn from White (2020); https://www.gcbbank.com.gh/; https://www.absa.com.gh) ; www.httpPollfish.com (http://www.ecobank.com/gh;

3.8.1.1.4 Survey Response Rate

Figure 3.11 Survey Response Rate



Source: (Field work, 2021)

Out of the 132 survey questionnaires sent out or distributed to the respondents, 128 feedback responses of completed survey questionnaires were received from the above-mentioned respondents for analysis. Hence, Response Rate = 128/132 x 100. **Response Rate = 97%.** This represents a response rate of 97 per cent, which is considered adequate, as it is higher than 80 per cent indicated by Babbie (2013) and above 70 per cent indicated by Quentin (2019).

Survey method is justified because it is an efficient primary data collection method in the social sciences research: the response rate is high. More so, it has a wider geographical reach and high representativeness (Babbie, 2013). Besides, it is convenient for survey participants; the anonymity of survey allows respondent to feel more candid with their responses (Creswell, 2009). Moreover, it is cost-efficient and more economical: it requires less time and produce quick answers; it is faster and less expensive, and the results of survey is reliable and high validity (Babbie, 2013). In addition, the outcome of survey data allows researchers to formulate hypotheses

(Quentin, 2019). Finally, it is easy to analyse survey data than qualitative interview data (de Vaus, 1996).

3.8.1.2 Data Collection Method # 2: Observation Method

Figure 3.12 Observation Method

Source: (Field work, 2022).

In collecting a second primary data for this study, an observation method was adequate and suitable to achieve the objective of the study. After collecting the survey data, it became necessary to use another primary data collection method to reinforce the survey data. Hence, an observation method was employed for the study. This method is a complement to the use of survey questionnaire data and an alternative to focus group interview and documentary. The purpose of the observation was to collect data such as behaviours; actions; body language; skills; knowledge from all observation participants for dominant variables to answer the research questions. Besides, it was intended to ascertain evidence of an integrated and comprehensive picture of the actual situation on the ground. Moreover, it was intended to validate the survey data and the secondary data. In this study, the application of observation method proceeded this way: While using this method, the observed behaviours were ticked off or checked on the observation checklist and recorded in the observation field notes. The time allocated to the observation event was 45 minutes. The observation participants were very professional, cooperative and friendly, and chatting with them as observed was a pleasure. The observation was very thrilling and captivating. It was well-enjoyed and honestly, had enough of it. Observation method is justified because it is useful for collecting data about people, processes, and cultures. Besides, it allows the researcher to explore unknown facts more scientifically (Quentin, 2019). Apparently, scientific observation is the foundation of science and research (Quentin, 2019). Furthermore, observation provides insightful means to see the pattern of participants interaction and their behavioural pattern, therefore, it is an excellent source of information about what actually happens in a typical banking setting (Kawulich, 2015). Finally, it enables the researcher to access sensitive aspects of a social setting that may not be visible to the general public, those backstage activities that the public does not generally see, and it gives the researcher the opportunity to provide a deeper, richer, and detailed descriptions and understanding of the banking situations and other social setting than survey method which tends to produce less detailed information about a large number of people (Dwivedi, 1997).

3.8.1.2.1 Types of Observation Conducted

In this study, four types of observation were conducted. Namely; an overt observation; a structured observation; a direct observation and a quasi-participant observation. The above types of observation were combined and conducted together.

3.8.1.2.2 Quasi-Participant Observation

A quasi-participant observation was conducted to balance too much involvement and intervention with the study participants associated with participant observation and too much isolation and detachment from the study participants associated with non-participant observation (Goode & Hatt, 2006).

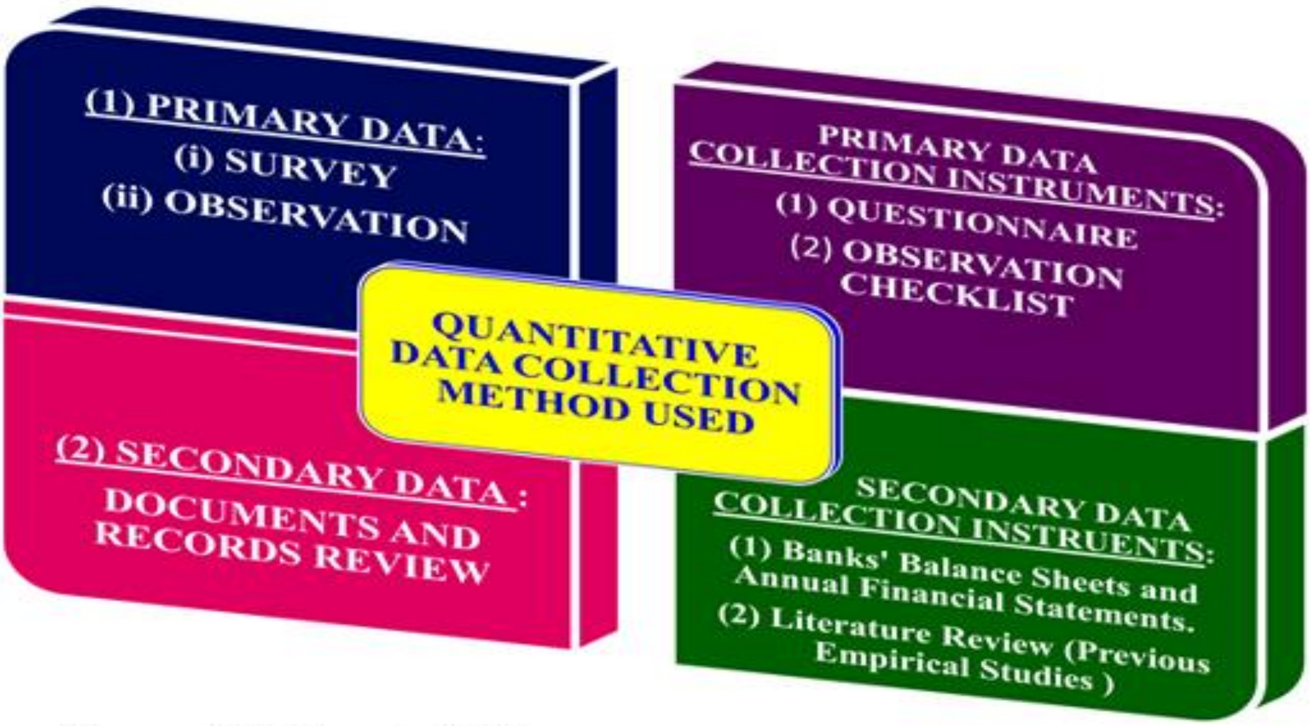
Figure 3.13 Quasi-Participant Observation

Source: (Field work, 2022).

3.8.1.3 Data Collection Method # 3: Documents and Records Review

In collecting secondary data for this study, documents and records review method was adequate and suitable to achieve the objective of the study. Hence, the researcher used document and records review method to collect secondary data for the study. In this study, the application of document and records review method proceeded this way: While using this method, the researcher used the following: (i) Financial statements (income statement and balance sheets) or annual reports of universal banks 2017-2019 (ii) Journals publications; articles; the media; historical records; macroeconomic indicators; and literature review of previous studies. Documents and records review method is justified because it allows the researcher to collect large amount of data without asking anyone anything. Besides, it is reliable, valid, efficient and inexpensive. Moreover, the data that the researcher needs to answer the research questions is already existing, and it provides little or no burden on others. In addition, it can provide historical or comparison data. Finally, it introduces little bias.

Figure **3.14 Summary Data Collection Method**



Source: (Field work, 2022).

3.9 Data Processing

In this study, data processing proceeded this way: While processing data, the researcher used electronic data processing to process data to produce output.

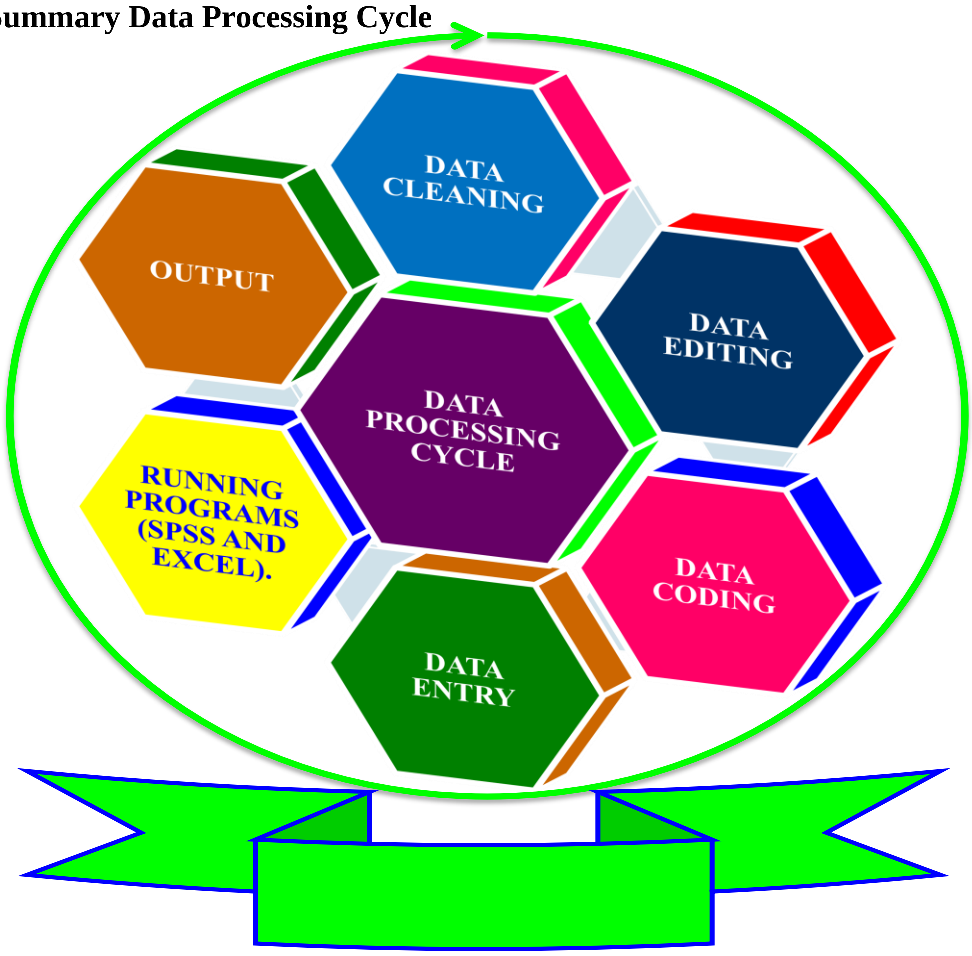
3.9.1 Electronic Data Processing

In this study, data were processed with modern technologies using a sophisticated electronic data processing statistical software: (1) SPSS and (2) Microsoft Excel.

Statistical Package for Social Sciences (SPSS) and Microsoft Excel are justified because they have in-build formulas and can take data from any type of file and use it to generate tabulated reports, charts, compare means, correlation etc.

In this study, the data processing cycle involved six main steps provided by Duggal, (2021), which is depicted as follows: Step 1: Data Cleaning; Step 2: Data Editing; Step 3: Data Coding; Step 4: Data Entry; Step 5: Running programs; Step 6: Output.

Figure 3.15 Summary Data Processing Cycle



Source: (Field work, 2022). Created by Author based on materials drawn from (Duggal, 2021).

3.10 Data Analysis

3.10.1 Data Analysis Matrix

Table 3.1 Data Analysis Matrix

DATA ANALYSIS MATRIX

SPECIFIC OBJECTIVE	FRAMEWORK OF ANALYSIS	TECHNIQUE OF ANALYSIS
1. To describe the state of third generation financial sector reforms and economic growth in Ghana.	Descriptive Framework	Descriptive Statistics Trend Analysis
2. To analyze the effects of financial sector reforms on economic growth of Ghana.	Correlation Framework	Multiple Regression Analysis Technique; Pearson Correlation Coefficient.

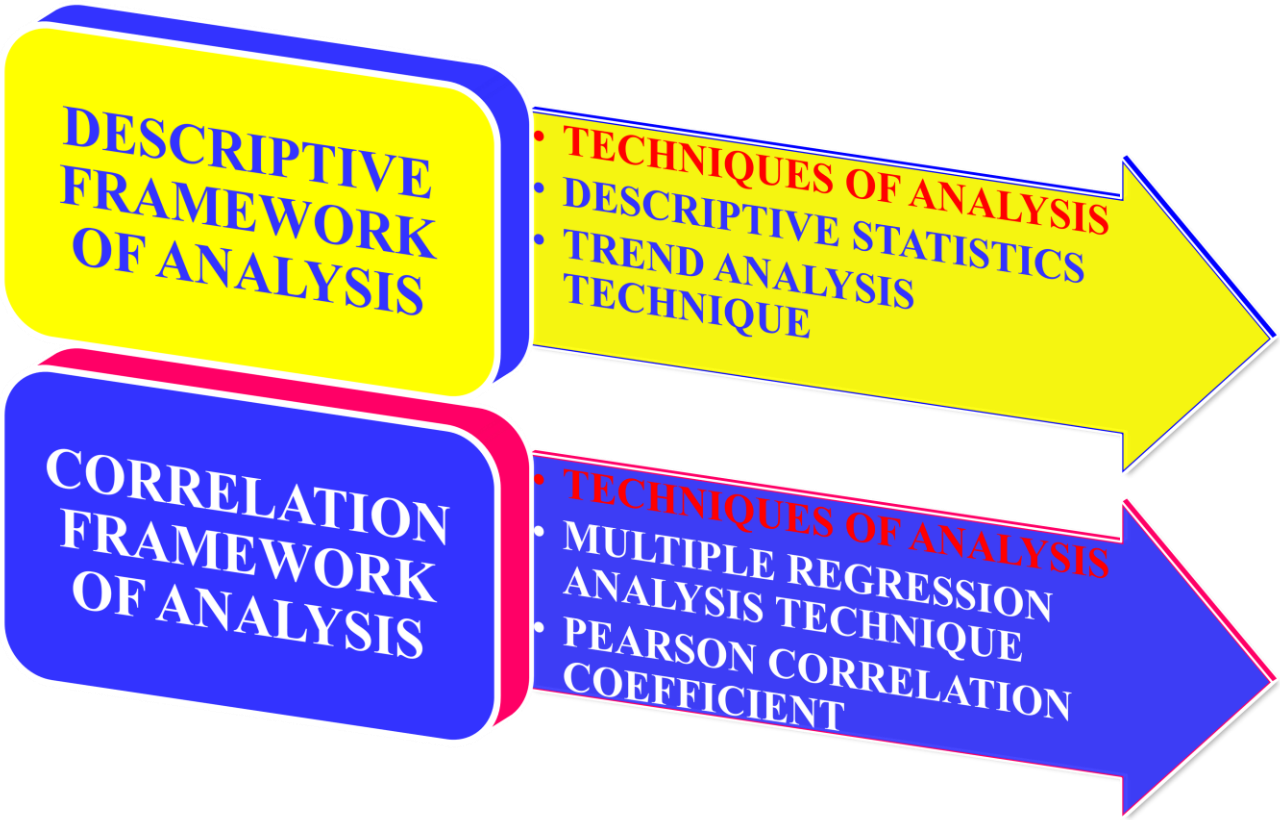
Source: (Field work, 2022).

In this study, data analysis proceeded this way:

1. To describe the state of third generation financial sector reforms and economic growth in Ghana, the researcher has utilized descriptive framework of analysis; descriptive statistics technique; and trend analysis technique.

2. To analyze the effects of financial sector reforms on economic growth of Ghana, the researcher has applied correlation framework of analysis; multiple regression analysis technique; and Pearson correlation coefficient.

Figure 3.16 Summary Data Analysis Frameworks and Techniques of Analysis



Source: (Fieldwork, 2022)

3.10.2 Control Variables

A control variable is any variable that is held constant in a research because it could influence the outcome. Aside from the independent and dependent variables, all variables that can influence the results should be controlled. However, the control variables used depends on the model being estimated. Control variables are controlled to make sure that the independent variables are the only factors causing a change in the dependent variable. In the context of this study, inflation rate is control variable.

3.10.3 Model Specification

The researcher performed multiple linear regression analysis to determine the strength of combined independent variables, in determining the magnitude of movement and direction of movement in the dependent variable.

The multiple linear regression model specified for this study is presented as follows:

$$Y = a + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \beta6X6 + \beta7X8 + \beta8X8 + \beta9X9 + \varepsilon$$

Where, Y = Economic Growth

a = a is the intercept of equation, and is assumed to be constant across all the sample

β = Beta

$\beta1$, $\beta2$, $\beta3$, $\beta4$, $\beta5$, $\beta6$, $\beta7$, $\beta8$, $\beta9$, represent Beta coefficients

X1 = denote Bank Credit to Private Sector

X2 = signify Savings Mobilization

X3 = represent Financial Inclusion

X4 = denote Technological Capacity Development

X5 = signify Human Development

X6 = represent Investments

X7 = denote Productivity Growth

X8 = signify Interest Rate Reduction

X9 = represent Capital Accumulation

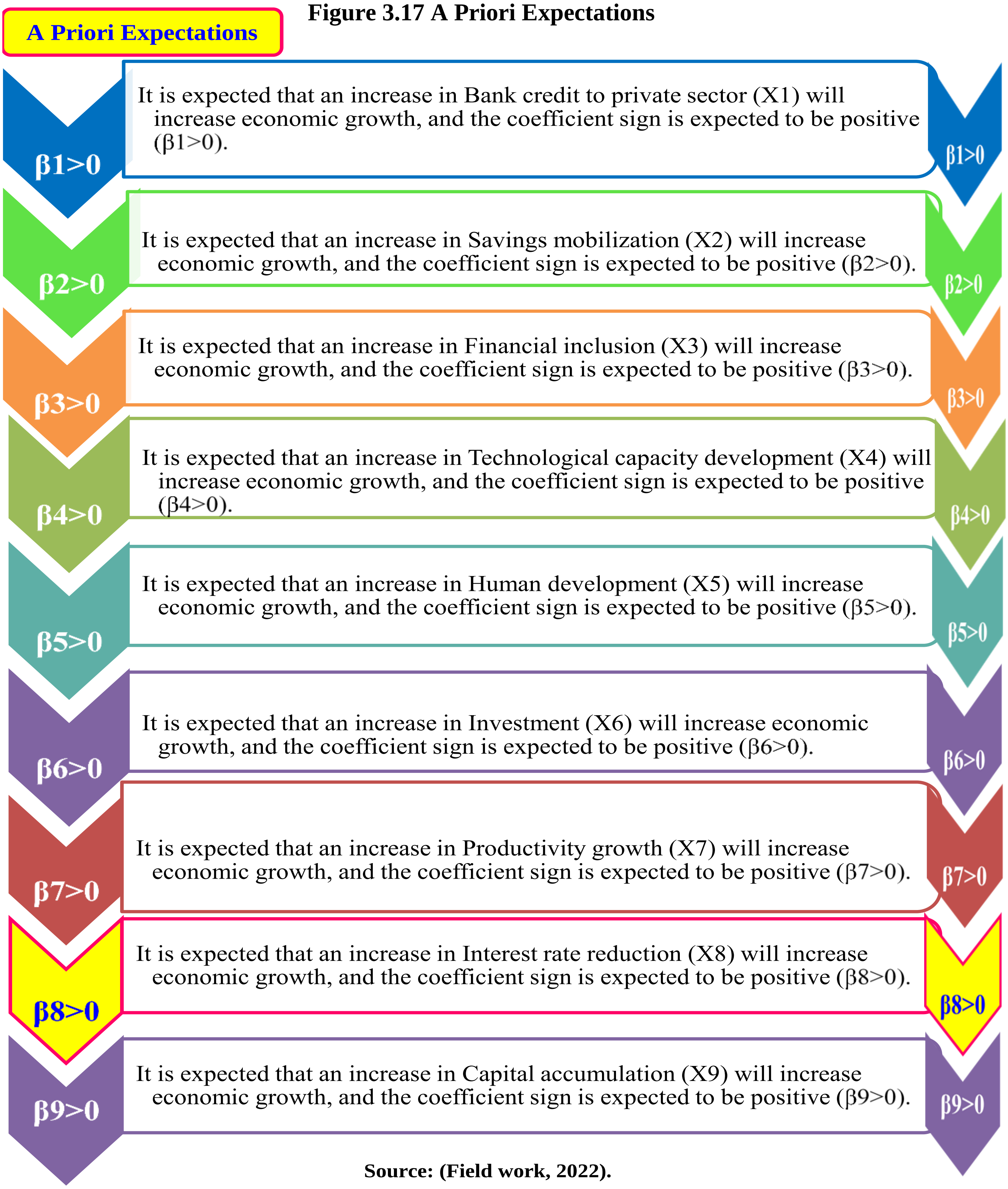
ε = is the error term or random disturbance

3.10.4 A Priori Expectations

The a priori expectation for the above model is summarized as follows:

It is expected that β1>0, β2>0, β3>0, β4>0, β5>0, β6>0, β7>0, β8>0, and β9>0.

Figure 3.17 A Priori Expectations



Source: (Field work, 2022).

NOTE: The variables enter in the regression according to the a priori expectations.

3.10.5 Measurement of Variables: Measurement Scale; Variable Type

Table 3.2 Measurement of Variables Measurement Scale; Variable Type

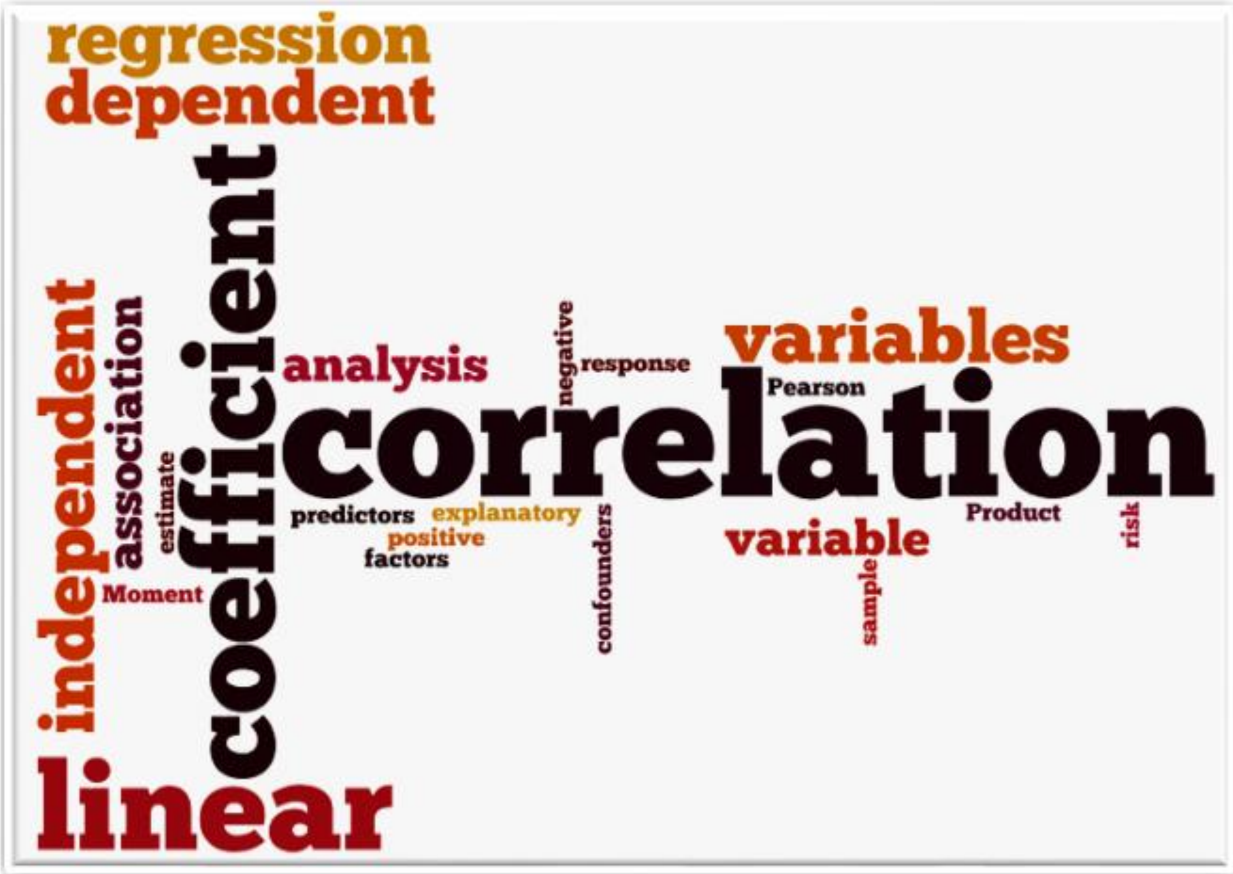
Variable Code	Variable Used in the Model	Measurement: How the Variable is Measured	Level of Measurement Scale Used	Variable Type	A Priori Expectation
RGDPG	**Economic Growth**	**Economic growth is measured as percentage change in economic output of a country over period of time, usually 12 months. It is also measured as percentage change of annual real GDP growth rate.**	**Continuous Scale (Interval or Ratio Scale)**	**Dependent Variable**	**(Expected to Increase.) Positive Coefficient Sign +**
BCTPS	**Bank Credit to Private Sector**	**Bank credit to private sector is measure as percentage of domestic credit to the private sector by banks, or financial intermediaries.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
SAVM	**Savings Mobilization**	**Saving mobilization is measured as percentage of savers for investment per 100, 000 adults.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
FINC	**Financial Inclusion**	**Financial inclusion is measured as number of bank branches per 100,000 adults; number of ATMs per 100,000 adults; percentage of digital payments (online & mobile banking; total value of mobile money usage.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
TECH	**Technological Capacity Development**	**Technological capacity development is measured as number of computer application software per 100,000 adults; number of internets per 100,000 adults; number of digital financial services and products.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
HUMD	**Human Development**	**Human development is measured as percentage of investment in human capital, and skills training per 100, 000 adults.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
INVT	**Investment**	**Investment is measured as percentage of exchanged income for asset over 12 months for capital gains in future.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
PRDG	**Productivity Growth**	**Productivity growth is measured as percentage increase of an economy gross domestic product (GDP) and overall economic outputs from the same amount of input for growth.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
INTR	**Interest Rate Reduction**	**Interest rate is measured as percentage of the principal amount borrowed based on Bank of Ghana monetary policy rate.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**
CAPAC	**Capital Accumulation**	**Capital accumulation is measured as percentage of physical capital, or capital stock, which is used in productive process over period of time, usually 12 months.**	**Continuous Scale (Interval or Ratio Scale)**	Independent Variable	**Positive Coefficient Sign +**

Source: (Field work, 2022).

3.10.6 Pearson correlation coefficient.

In analyzing data for this study, a Pearson correlation coefficient analysis technique was adequate and suitable to achieve the objective of the study. Therefore, the researcher has utilized a Pearson correlation coefficient analysis technique to analyze the effects of financial sector reforms on economic growth.

Figure 3.18 Pearson Correlation Coefficient Analysis Technique



Source: Adapted from (bookmyphdeditor.com, 2021)

In this study, the application of this analysis technique proceeded this way: While using this analysis technique, the researcher investigated the correlation between the independent and dependent variables at 5% level of confidence according to the SPSS package. The correlation coefficient is indicated by r. The correlation coefficient values are always between -1 to 1, i.e. $-1 < r > +1$ (Healey, 2009).

A Pearson correlation matrix shows the strength, significance and the direction of the relationships among all the variables.

A Pearson correlation coefficient analysis technique is justified because it helps in measuring the correlation between dependent variable and independent variables. Besides, it is an effective technique to accept or reject the hypothesis.

Moreover, correlation does not imply causation (Healey, 2009), however, a strong correlation between financial sector reforms variables and economic growth would be useful for regression analysis in making predictions about economic growth. Similarly, correlation is a stepping stone of regression analysis therefore, using a Pearson correlation coefficient analysis technique to investigate a relationship between financial sector reforms variables and economic growth could lead to a better measurement of the financial sector reforms factors that influence economic growth.

3.11 Data Description

Gross Domestic Product (GDP) Growth

Gross domestic product (GDP) growth is the main indicator of economic growth (Ghana Statistical Service, 2020). It is the annual GDP percentage change rate.

Age of Respondents

The percentage of survey respondents. Age affect respondent's decisions on the relationship between financial sector reforms and economic growth.

Gender of Respondents

Gender is the sex of survey respondent. Gender affect respondents' access to finance.

Mobile Money Usage

The total value of mobile money transactions and the extent of mobile money usage in the country.

Mobile Money Interoperability Usage

The total value of mobile money interoperability transactions and the extent of mobile money interoperability in the country.

ATMs Usage

The total value of ATM transactions and the extent of ATM usage in the country.

E-zwich Usage

The total value of E-zwich transactions and the extent of E-zwich in the country.

Gh-Link Usage

The total value of Gh-link transactions and the extent of Gh-link usage in the country.

Credit Card and Debit Card Usage

The total value of Credit Card and Debit Card transactions and the extent of Credit Card and Debit Card usage in the country.

GhIPSS Instant Pay (GIP) Usage

The total value of GhIPSS instant pay (GIP) transactions and the extent of GhIPSS instant pay (GIP) usage in the country.

ACH Direct Credit and ACH Direct Debit Usage

The total value of ACH Direct Credit and ACH Direct Debit transactions and the extent of ACH Direct Credit and ACH Direct Debit usage in the country.

Cheque Codeline Clearing Usage

The total value of Cheque codeline clearing transactions and the extent of Cheque codeline clearing usage in the country**.**

Interbank Payment and Settlement Systems Usage

The total value of Interbank payment and settlement systems transactions and the extent of Interbank payment and settlement systems usage in the country.

Digital payments (Online banking and Mobile banking)

The percentage of people using internet to buy something online, or pay utility bills (i.e., making regular payments for water bills, electricity bills in the past 3 years through a mobile phone or online banking.

3.12 Profile of Sampled Respondents

The first categories of participants surveyed and observed were chief operating officers; the chief finance officers; head of human resources and HR advisors of sampled universal banks. These participants are justified because they are the highest authority, and have the expertise, experience, relevant information and knowledge needed to fill the survey questionnaires. The second categories of participants surveyed and observed were branch managers; credit officers; and tellers of sampled universal banks. These participants are justified because they play vital roles, and have relevant information and knowledge needed to fill the survey questionnaires. The third category of participants surveyed and observed were customers of sampled universal banks. These participants are justified because they represent the views of the general public which the universal banks attempt to satisfy their needs, and have the relevant information and knowledge needed to fill the survey questionnaires.

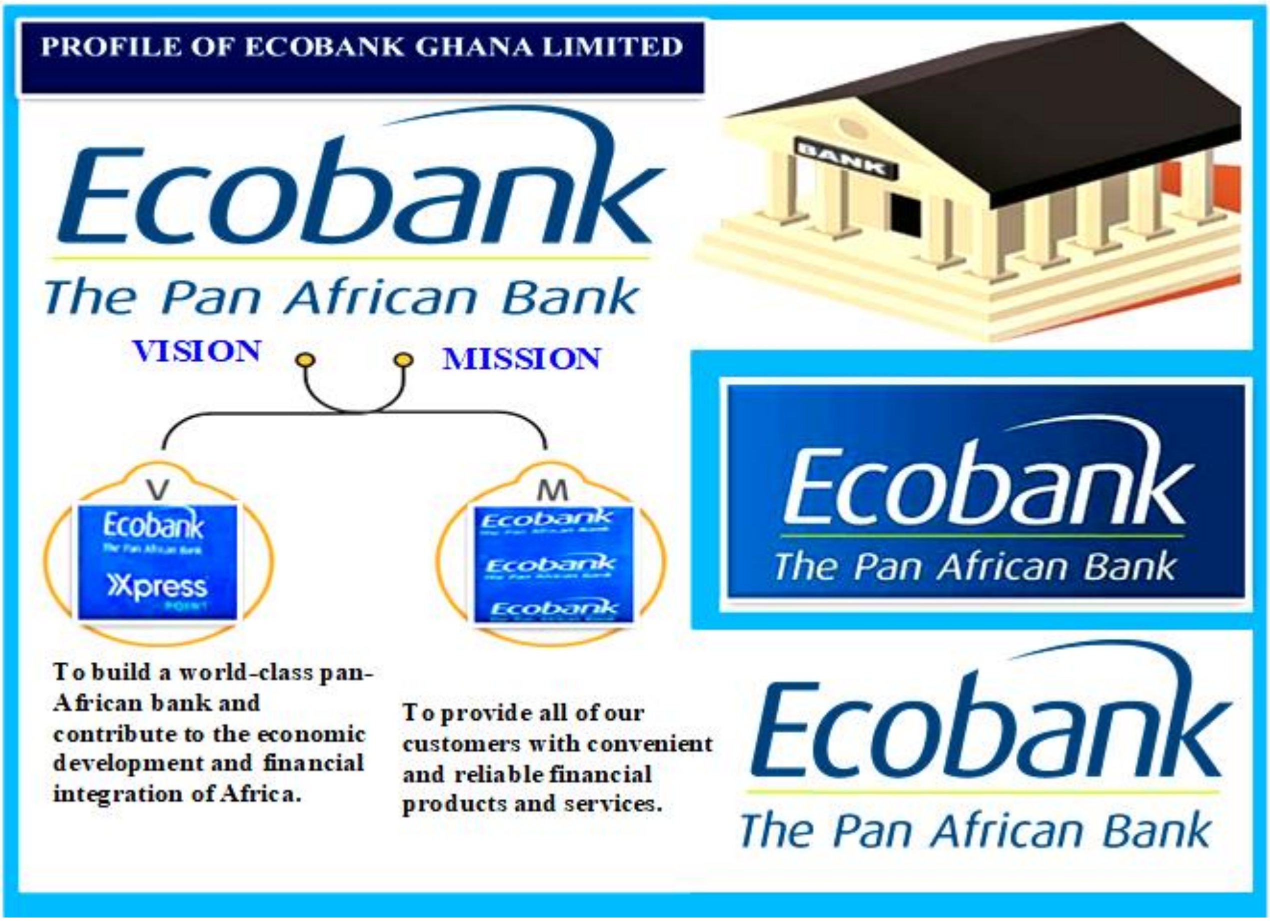
Figure 3.19 Profile of GCB Bank Limited

Source: (Field work, 2022). Created by Author based on materials gleaned from GCB Bank Limited website (https://www.gcbbank.com.gh)

GCB Bank LTD is justified because it has gone through impressive changes of progress regarding digital technology and innovations since implementation of third generation financial sector reforms 2017-2019. GCB Bank LTD formally known as Ghana Commercial Bank LTD, is Ghana's first and largest indigenous bank with the vision to be the leading Bank in all their markets and the mission to provide first-class banking solutions for customers and value for all stakeholders. GCB Bank LTD was established in 1953 as the Bank of the Gold Coast to provide banking services to the emerging nation for socio-economic development. In 1957, when Ghana attained independence, the Bank of the Gold Coast was renamed Ghana Commercial Bank to focus solely on commercial banking services. In 1996, the bank was listed on the Ghana Stock

Exchange. In 2014, the bank renamed GCB Bank LTD to refresh its image and project a renewed dynamism.

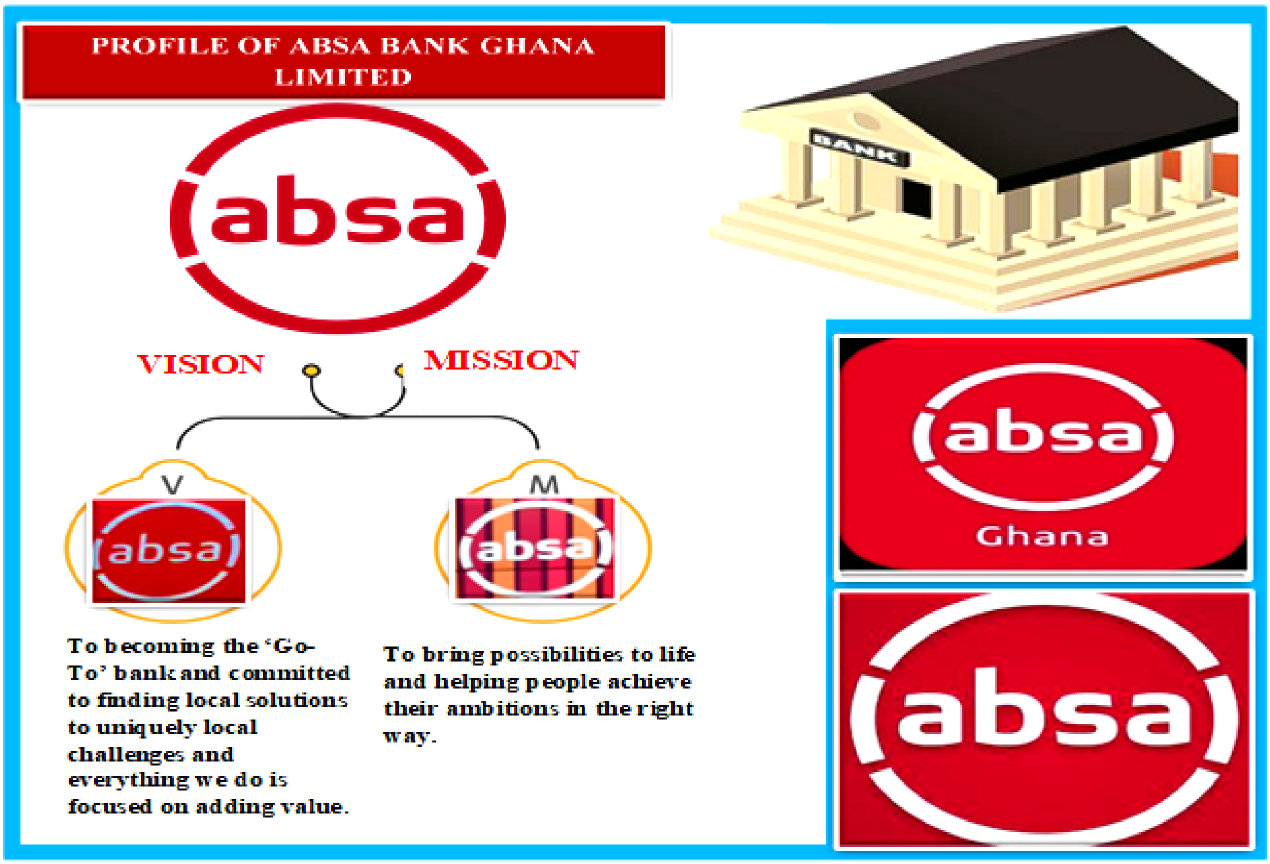
Figure 3.20 Profile of Ecobank Ghana Limited



Source: (Field work, 2022). Created by Author based on materials drawn from Ecobank website (https://www.ecobank.com.gh)

Ecobank Ghana LTD is justified because it has gone through impressive changes of progress regarding digital technology and innovations since implementation of third generation financial sector reforms 2017-2019. Ecobank Ghana LTD is a subsidiary of Ecobank Transnational Incorporated, a bank holding company of pan-African banking institution founded in 1985 and headquartered in Lomé, which is currently present in over 36 countries across Africa. Ecobank Ghana LTD was incorporated on January 9, 1989 as a private limited liability company under the Companies Code to engage in the business of banking. Subsequently, the bank was licensed to operate as a merchant bank, by the Bank of Ghana on November 10, 1989 and commenced business on February 19, 1990 with the vision to build a world-class pan-African bank and contribute to the economic development and financial integration of Africa and the mission to provide its customers with convenient and reliable financial products and services. In 2003, Ecobank Ghana LTD acquired a universal banking license and in July 2006 it was listed on the Ghana Stock Exchange.

Figure 3.21 Profile of Absa Bank Ghana Limited



Source: (Field work, 2020). Created by Author based on materials gleaned from Absa Bank Ghana Limited website (https://www.absa.com.gh)

Absa Bank Ghana LTD is justified because it has gone through impressive changes of progress regarding digital technology and innovations since implementation of third generation financial sector reforms 2017-2019. Absa Bank Ghana LTD formerly known as Barclays Bank of Ghana LTD, is a subsidiary of Absa Group LTD headquartered in South Africa, with subsidiaries in 12 African countries and an international representative office in London and New York. Absa Group's LTD shares trade on the Johannesburg Stock Exchange in South Africa. According to the archives of Barclays Bank Ghana, Colonial Bank was established in 1917 during the Gold Coast time. It is the first and the oldest bank in Ghana. In 1925, Anglo-Egyptian Bank, Colonial Bank and National Bank of South Africa were merged to form Barclays Bank (Dominion, Colonial and Overseas). Absa Bank Ghana LTD was incorporated 1970. In 1975, the Government of Ghana acquired 40 percent shareholding in Barclays Bank of Ghana. That stake was returned in 2003. In 2013, the bank became a member of Barclays Africa Group, with Barclays Plc holding a controlling 62.3 percent majority ownership. In 2016, Barclays Bank Plc, which owned 62.3 percent of Barclays Africa Group decided to divest its majority shareholding in Barclays Africa Group, worth £3.5 billion at that time.

In 2017, Barclays reduced its shareholding in Barclays Africa Group to 14.9 percent. Following that, in 2018 Barclays Africa Group re-branded to Absa Group LTD.

In Ghana, the re-brand concluded on 10 February 2020, when both the bank's legal and business names became Absa Bank Ghana LTD The new Absa brand represents a uniquely diverse African banking group with the vision to becoming the ‘Go-To’ bank and committed to finding local solutions to uniquely local challenges and everything we do is focused on adding value and the mission is to bring possibility to life and helping people achieve their ambitions in the right way.

CHAPTER FOUR: STATE OF THE THIRD GENERATION FINANCIAL SECTOR REFORMS AND ECONOMIC GROWTH IN GHANA.

4.1 Introduction

This chapter highlights the analysis and presentation of results of the state of the third generation financial sector reforms and economic Growth in Ghana.

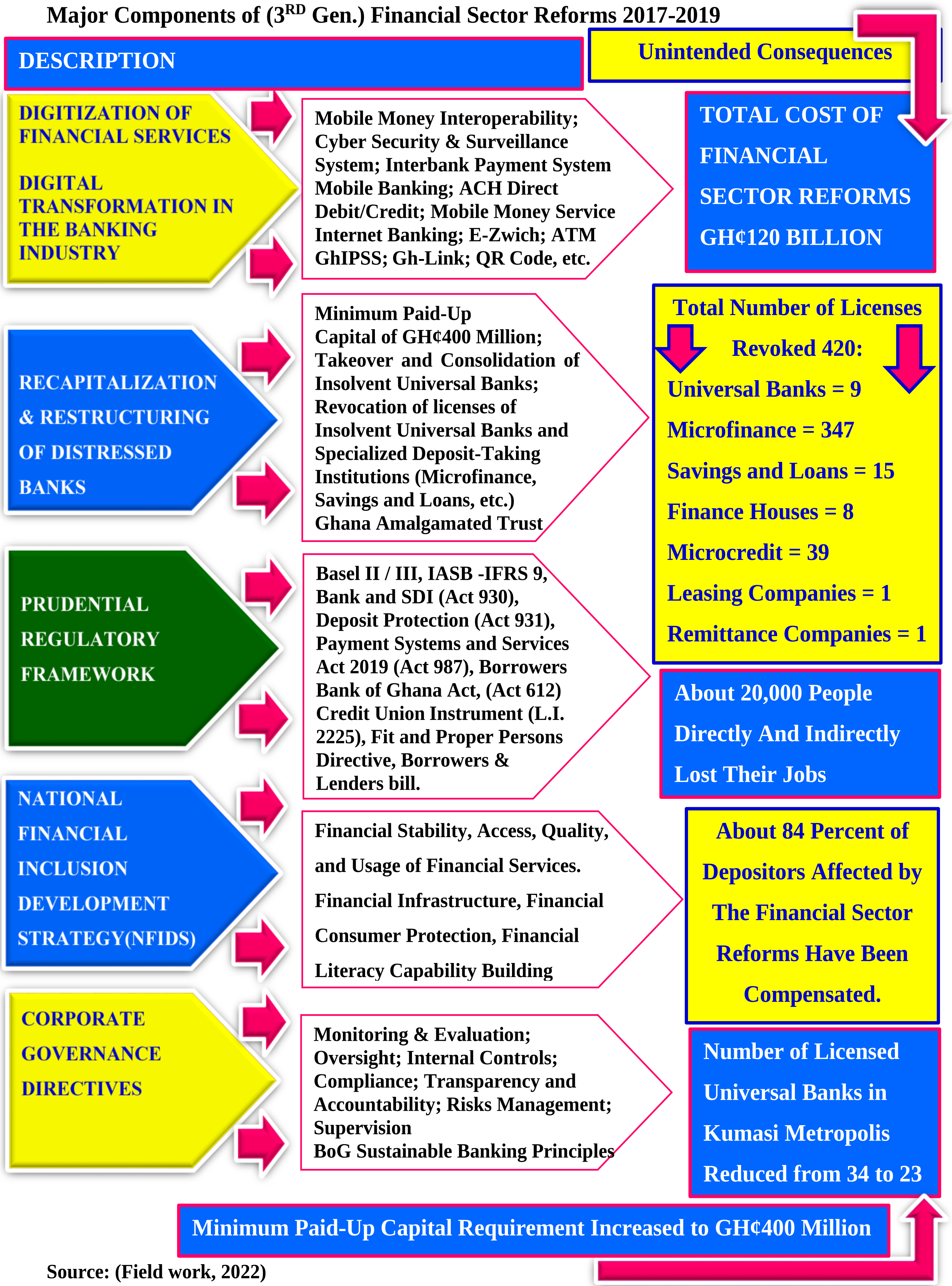
4.2. State of The Third Generation Financial Sector Reforms

State of the third generation financial sector reforms proceeded this way:

It was observed that the third generation financial sector reforms in Ghana's banking industry (2017-2019) were policy measures aggregated into six main components: digitization of financial services, recapitalization and restructuring of distressed banks; corporate governance directives; sustainable banking principles; prudential regulation and supervision; and financial inclusion.

It was observed that the implementation of the third generation financial sector reforms have brought a significant and impressive changes of progress in digital transformation in the banking industry in Ghana. It was observed that the financial sector reforms have entrenched on other domains and unintended consequences. It was observed that the third generation financial sector reforms have increased of the minimum paid-up capital for universal banks from GH¢120 million to GH¢400 million. It was observed that the third generation financial sector reforms resulted in revocation of licences of 420 dormant and weak financial institutions made up of insolvent banks and specialized deposit-taking institutions (SDIs). It was observed that at the end of the third generation financial sector reforms, the number of universal banks in Kumasi Metropolis, Ghana had reduced from 34 to 23. It was observed that about 20,000 people directly and indirectly lost their jobs. About 84 per cent of depositors affected by the financial sector reforms have been compensated. It was observed that the total costs of the third generation financial sector reforms in the banking sector was GH¢21 billion.

Figure: 4.1 Major Components of 3RD Gen, Financial Sector Reforms (2017-2019)



Source: (Field work, 2022)

4.2.1 Digital Transformation in the Banking Industry

Figure 4.2 Digital Transformation in the Banking Industry

Source: (Field work, 2022)

4.2.2 Trend of Comparative Digital Payment Transactions Statistics 2017-2019

Table 4.1 Trend of Comparative Digital Payment Transactions Statistics 2017-2019

COMPARATIVE PAYMENT SYSTEM STATISTICS		**PRE-REFORM**		**POST REFORM**
YEAR		**2017**	**2018**	**2019**
MOBILE MONEY	Total volume of mobile money transactions (Million)	**981,564,563**	**1,454,470,801**	**2,009,989,300**
	Total value of mobile money transactions (GH¢ Billion)	**155,844.84**	**223,207.23**	**309,352.25**
ATMs	Volume of transactions (Million)	**57,317,491**	**57,763,558**	**55,709,252**
	Value of transactions (GH¢ Billion)	**18,542.95**	**21,796.49**	**26,392.44**
E-ZWICH	Volume of Transactions (Million)	**8,367,017**	**7,759,354**	**10,796,560**
	Value of Transactions (GH¢ Billion)	**3,431.49**	**5,651.14**	**6,308.37**
GHIPSS INSTANT PAY (GIP)	Volume of Transactions (Million)	**41,795**	**143,879**	**1,905,267**
	Value of Transactions (GH¢ Billion)	**83.23**	**534.04**	**3,456.89**
GH-LINK	Volume of Transactions (Million)	**2,340,409**	**1,830,182**	**972,746**
	Value of Transactions (GH¢ Billion)	**603.43**	**543.74**	**329.23**
CHEQUE CODELINE CLEARING	Volume of Transactions (Million)	**7,334,460**	**7,255,220**	**6,831,417**
	Value of Transactions (GH¢ Billion)	**179,555.47**	**203,465.32**	**173,623.25**
ACH DIRECT CREDIT	Volume of Transactions (Million)	**6,061,093**	**6,645,126**	**7,404,059**
	Value of Transactions (GH¢ Billion)	**24,327.3**	**30.23**	**36.14**
ACH DIRECT DEBIT	Volume of Transactions (Million)	**940,649**	**861,169**	**722,337**
	Value of Transactions (GH¢ Billion)	**126.3**	**139.15**	**173.10**
MOBILE MONEY INTEROPERABILITY	Volume of Transactions (Million)	**N/A**	**2,266,631**	**1.600,000**
	Value of Transactions (GH¢ Billion)	**N/A**	**212.89**	**132.00**
INTER-BANK SETTLEMENT	Volume of Transactions (Million)	**934,234**	**1.220,000**	**1,376,094**
	Value of Transactions (GH¢ Billion)	**2,083,846**	**1,963.47**	**2,106.12**

Source: (Field work, 2022)

4.2.3 Mobile Money Interoperability (MMI) Usage

Figure 4.3 Mobile Money Interoperability

Source: (Field work, 2022). Compiled by Author based on materials drawn from (www.bog.gov.gh); (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

It was observed from Table 4.1 that the total volume of mobile money interoperability transactions as at December 2018 stood at 2,266,631 million, while the total value of mobile money interoperability transactions as at December 2018 stood at GH¢212.89 billion. Besides, it was observed from Table 4.1 that the total volume of mobile money interoperability transactions decreased to 1.600,000 million in 2019, while the total value of mobile money interoperability transactions decreased to GH¢132.0 billion in 2019.

4.2.4 Mobile Money Services Usage

Fig: 4.4 Mobile Money Network Operators (MMNOs) in Kumasi Metropolis, Ghana

MOBILE MONEY SERVICES

Source: (Field work, 2022). Compiled by Author based on materials drawn from (www.bog.gov.gh); (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh); (Ayim, 2021).

It was observed from Table 4.1 that the total volume of mobile money service transactions in 2017 stood at 981,564,56 million, while the total value of mobile money service transactions in 2017 stood at GH¢155.84 billion. Besides, the total volume of mobile money service transactions increased to 1,454,470,801 million in 2018, while the total value of mobile money service transactions increased to GH¢223.21 billion in 2018. In the same vein, the total volume of mobile money service transactions increased to 200, 673, 568 million in 2019 while the total value of mobile money service transactions increased to GH¢309.35 billion in 2019.

4.2.5 E-Zwich Usage

Figure. 4.5 E-zwich

E-ZWICH

Source: (Field work, 2022). Compiled by Author based on materials drawn from (www.bog.gov.gh); (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

It was observed from Table 4.1 that the total volume of E-zwich transactions stood at 8,367,017 million in 2017, while the total value of E-zwich transactions stood at GH¢3,431.49 billion in 2017. Besides, it was observed from Table 4.1 that the total volume of E-zwich transactions decreased to 7,759,354 million in 2018, while the total value of E-zwich transactions increased to GH¢5,651.14 billion in 2018. Consequently, it was observed from Table 4.1 that the total volume of E-zwich transactions increased to 10,796,560 million in 2019, while the total value of E-zwich transactions increased to GH¢ 6,308.37 billion in 2019.

4.2.6 Gh-Link Usage

Figure 4.6 Gh-Link

GH-LINK

Source: (Field work, 2022). Compiled by Author based on materials drawn from (www.bog.gov.gh); (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

It was observed from Table 4.1 that the total volume of Gh-link transactions recorded through the Gh-link platform stood at 2,340,409 million in 2017, while the total value of Gh-link transactions stood at GH¢603.43 billion in 2017. Besides, it was observed from Table 4.1 that the total volume of Gh-link transactions on the Gh-link platform decreased to 1,830,182 million in 2018, while the total value of Gh-link transactions decreased to GH¢543.74 billion in 2018. In the same vein, the total volume of Gh-link transactions on the Gh-link platform decreased to 972,746 million in 2019, while the total value of Gh-link transactions increased to GH¢329.23 billion in 2019.

4.2.7 GhIPSS Instant Pay (GIP) Usage

It was observed from Table 4.1 that the total volume of GhIPSS Instant Pay (GIP) transactions stood at 41,795 million in 2017, while the total value of GhIPSS Instant Pay (GIP) transactions stood at GH¢83.23 billion in 2017. Besides, it was observed from Table 4.1 that the total volume of GhIPSS Instant Pay (GIP) transactions increased to 143,879 in 2018, while the total value of GhIPSS Instant Pay (GIP) transactions increased to GH¢534.04 billion in 2018. In the same vein, it was observed from Table 4.1 that the total volume of GhIPSS Instant Pay (GIP) transactions increased to 1,905,267 million in 2019, while the total value of GhIPSS Instant Pay (GIP) transactions increased to GH¢3,456.89 billion in 2019.

4.2.8 Automated Teller Machine (ATM) Usage

Figure 4.7 Automated Teller Machine (ATM)

AUTOMATIC TELLER MACHINE (ATM)

Source: (Field work, 2022). Compiled by Author based on materials drawn from (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

It was observed from Table 4.1 that the total volume of ATM transactions stood at 57,317,491 million in 2017, while the total value of ATM transactions stood at GH¢18,542.95 billion in 2017. Besides, it was observed from Table 4.1 that the total volume of ATM transactions increased to 57,763,558 million in 2018, while the total value of ATM transactions increased to GH¢21,796.49 billion in 2018. However, it was observed from Table 4.1 that the total volume of ATM transactions decreased to 55,709,252 million in 2019. However, it was observed from Table 4.1 that despite the decline in the total volume ATM transactions in 2019, the total value of ATM transactions increased to GH¢26,392.44 billion in 2019.

4.2.9 Ghana Inter-bank Settlement System (GIS) Usage

It was observed from Table 4.1 that the total volume of inter-bank settlement transactions for 2017 stood at 934,234 thousand, while the total value of inter-bank settlement transactions stood GH¢2,083.8 billion in 2017. Besides, it was observed from Table 4.1 that the total volume of inter-bank settlement transactions increased to 1,220,000 million in 2018. However, it was observed from Table 4.1 that the total value of inter-bank settlement transactions, decreased to GH¢1,963.47 billion. Similarly, it was observed from Table 4.1 that the total volume of inter-bank settlement transactions increased to 1,376,094 million in 2019, while the total value of inter-bank settlement transactions increased to GH¢2,106.12 billion in 2019.

4.2.10 Automatic Clearing Houses (ACHs): ACH Direct Credit Usage

It was observed from Table 4.1 that the total volume of ACH direct credit transactions stood at 6,061,093 million in 2017, while the total value of ACH direct credit transactions stood at GH¢24. 327.3 billion in 2017. Besides, it was observed from Table

4.1 that the total volume of ACH direct credit transactions in 2018 increased to 6,645,126 million, while the total value of ACH direct credit transactions increased to GH¢30.23 billion in 2018. Similarly, the total volume of ACH direct credit transactions increased to 7,404,059 million in 2019, while the total value of ACH direct credit transactions increased to GH¢36.14 billion in 2019.

4.2.11 Automatic Clearing Houses (ACHs): ACH Direct Debit Usage

It was observed from Table 4.1 that the total volume of ACH direct debit transactions stood at 940,649 million in 2017, while the total value of ACH direct debit transactions stood at GH¢126.3 billion in 2017. Besides, the total volume of ACH direct debit transactions decreased to 861,169 million in 2018. However, the total value of ACH direct debit transactions increased to GH¢139.15 billion. On the other hand, the total volume of ACH direct debit transactions decreased to 722,337 million in 2019. Despite the decrease in ACH direct debit transaction volume, the total value of ACH direct debit transactions increased to GH¢173.10 billion in 2019.

4.2.12 Cheque Codeline Clearing Usage

It was observed from Table 4.1 that the total volume of inter-bank cheques cleared stood at 7,334,460 million in 2017, while the total value of inter-bank cheques cleared stood at GH¢179,555.47 billion in 2017. Besides, the total volume of inter-bank cheques cleared declined to 7,255,220 million in 2018. However, the total value of inter-bank cheques cleared increased to GH¢203,465.32 billion in 2018. Despite the increase in value of cheques cleared, the total volume of inter-bank cheques cleared declined to 6,831,417 million in 2019. Similarly, the total value of inter-bank cheques cleared also declined to GH¢173,623.25 billion in 2019.

4.2.13 Ghana Universal Quick Response Code (GhQR Code) Usage

It was observed from figure 4.2 that one of the digital transformations in the banking industry associated with the third generation financial sector reforms (2017-2019) in the banking industry in Ghana is Quick Response Code (QR Code). It was observed that Ghana is one of the first countries in the World pioneering Universal Quick Response Code (QR Code). It was observed that the Quick Response Code (QR Code) brings banks, mobile network on one common platform. The QR Code is readable by a mobile phone application, which leads to a special Bank of Ghana website (microsite) that explains the details of the national banknotes. It was observed that registered users in Kumasi Metropolis, Ghana scan the GhQR Code to with their phones to make payment from their bank account or MOMO wallet. It was observed that they also use the GhQR code accept or receive payment into their bank account or MOMO wallet. It was observed that the QR Code, however, is not designed as a security feature.

4.2.14 Debit Cards; Credit Cards; and Prepaid Cards Usage

It was observed from figure 4.2 that another digital transformation in the banking industry associated with the third generation financial sector reforms (2017-2019) in the banking industry in Ghana are Debit Cards; Credit Cards; and Prepaid Cards. It was observed that these cards are used for electronic withdrawal from cardholders in Kumasi Metropolis, Ghana account directly. It was observed that these cards are cashless transactions, and transactions can be executed in card-not-present environments. It was observed that personal identification numbers (PIN) are used by customers to verify and access the transactions.

Figure 4.8 Debit Cards; Credit Cards; and Prepaid Cards

DEBIT CARDS; CREDIT CARDS; PREPAID CARDS

DEBIT CARDS; CREDIT CARDS; PREPAID CARDS

Source: (Field work, 2022). Compiled by Author based on materials drawn from (www.bog.gov.gh); (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

4.2.15 Online/Internet Banking Usage

It was observed from figure 4.2 that another digital transformation in the banking industry associated with the third generation financial sector reforms (2017-2019) in the banking industry in Ghana is Online/Internet Banking. It was observed that online/internet banking has offered banking package to customers to help them complete financial transactions from the comfort of their homes or offices without going to the bank branch. It was observed that online/internet banking has offered customers in Kumasi Metropolis, Ghana the luxury to send and receive funds, make account inquiries, transfer money, pay bills, set direct debits or do direct deposits with just a click. It was observed that due to technological advancement in the banking industry, customers can now access their bank accounts on their phones, tablets, computers, and any other smart device with an internet connection.

Figure 4.9 Online/Internet Banking

ONLINE/INTERNET BANKING

Source: (Field work, 2022). Compiled by Author based on materials drawn from (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

4.2.16 Mobile Banking Usage

It was observed from figure 4.2 that another digitization and technology evolution in banking industry associated with the third generation financial sector reforms (2017-2019) in the banking industry in Ghana is Mobile Banking. Mobile Banking is a banking package offered to the customers in Kumasi Metropolis, Ghana to help them perform financial transactions using a bank's Mobile App. Due to technological advancement in the banking industry, customers can now download a bank's mobile App on their phones, tablets, computers, and any other smart device to access their bank accounts with an internet connection.

Figure 4.10 Mobile Banking

Source: (Field work, 2022). Compiled by Author based on materials drawn from (www.bog.gov.gh); (https://www.gcbbank.com.gh/);(https://www.ecobank.com.gh); (www.absa.com.gh).

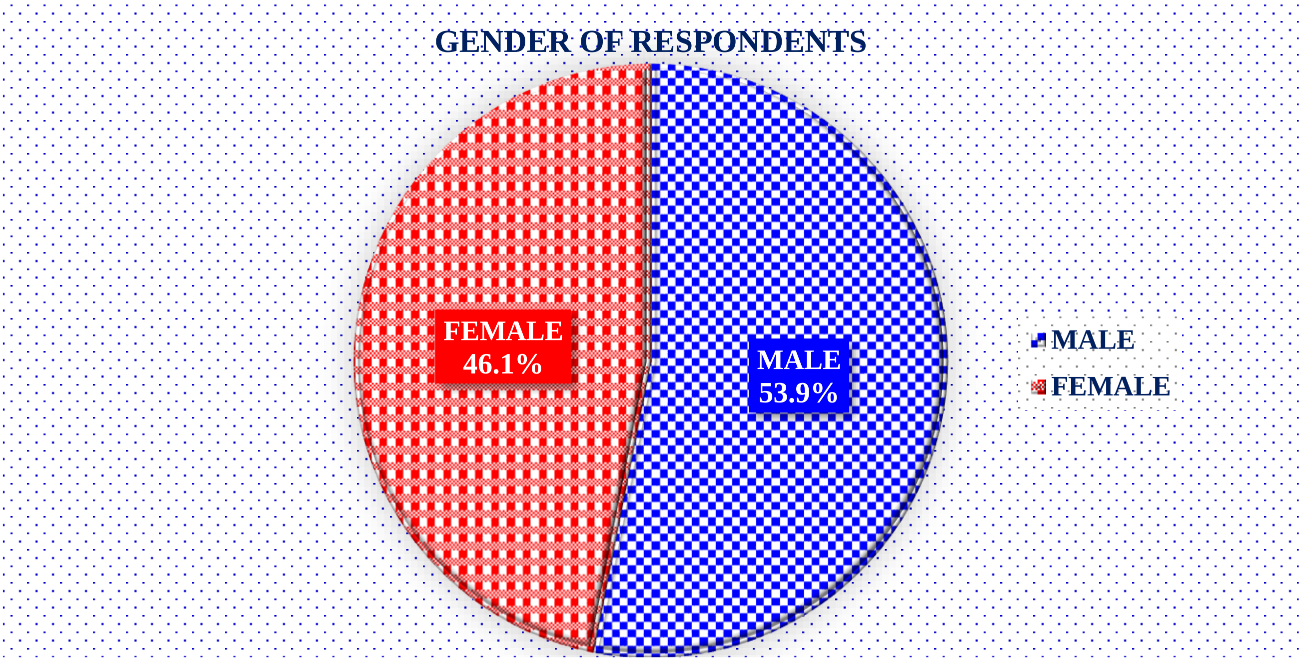
4.3 Survey Responses on the State of Financial Sector Reforms.

Table 4.2 Gender of Respondents

	Frequency	Percent	Cumulative Percent
Male	69	53.9	53.9
Female	59	46.1	100.0
Total	128	100.0	

Source: (Field survey, 2022).

Figure 4.11 Pie Chart: Gender of Respondents



Source: (Field survey, 2022).

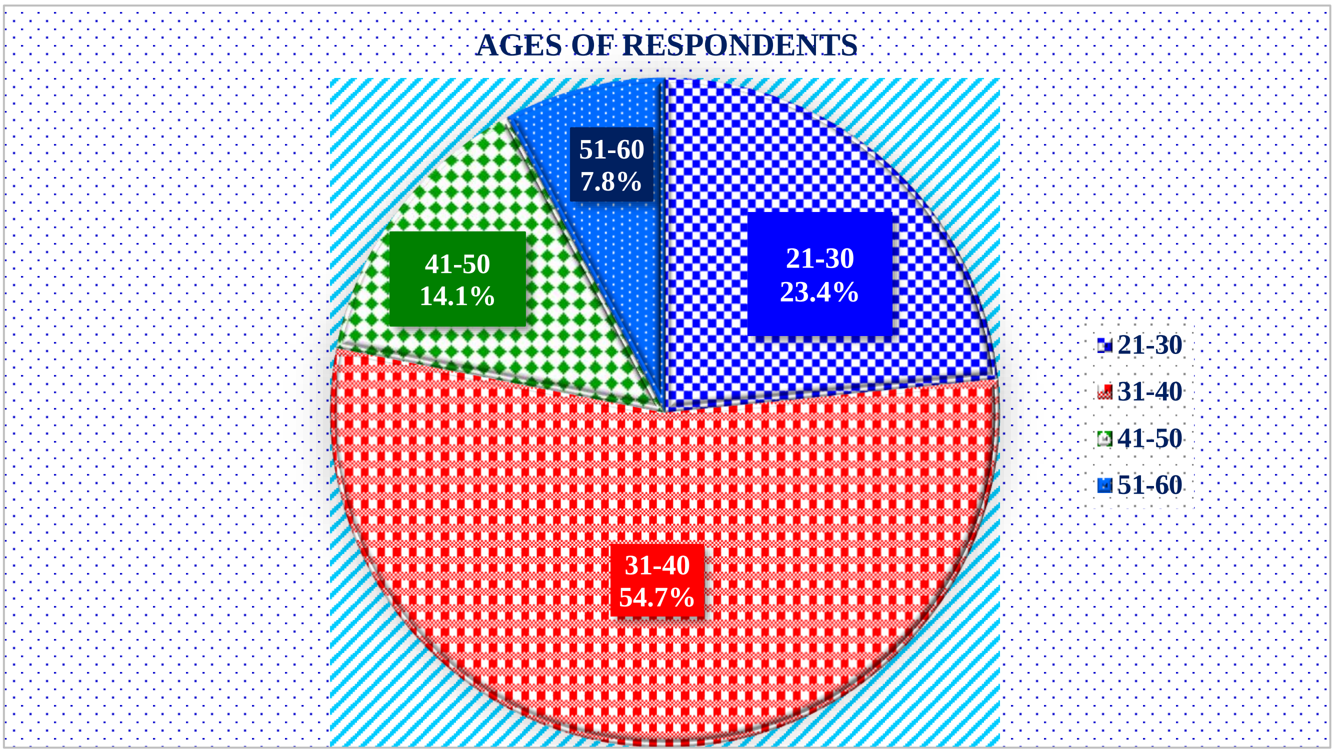
It was observed from Fig. 4.11 that the gender of respondents was mixed. 53.9 percent **(69 respondents)** were males, while 46.1 percent **(59 respondents)** were females.

Table 4.3 Ages of Respondents

	Frequency	Percent	Cumulative Percent
21-30	30	23.4	23.4
31-40	70	54.7	78.1
41-50	18	14.1	92.2
51-60	10	7.8	100.0
Total	128	100.0	

Source: (Field survey, 2022).

Figure 4.12 Pie Chart: Ages of Respondents



Source: (Field survey, 2022).

It was observed from figure 4.12 that 23.4 percent **(30 respondents)** were between the ages 21-30, while 54.7 percent **(70 respondents)** were between the ages 31-40. It was observed from figure 4.12 that 14.1 percent **(18 respondents)** were between the ages 41-50, while 7.8 percent **(10 respondents)** were between the ages 51-60.

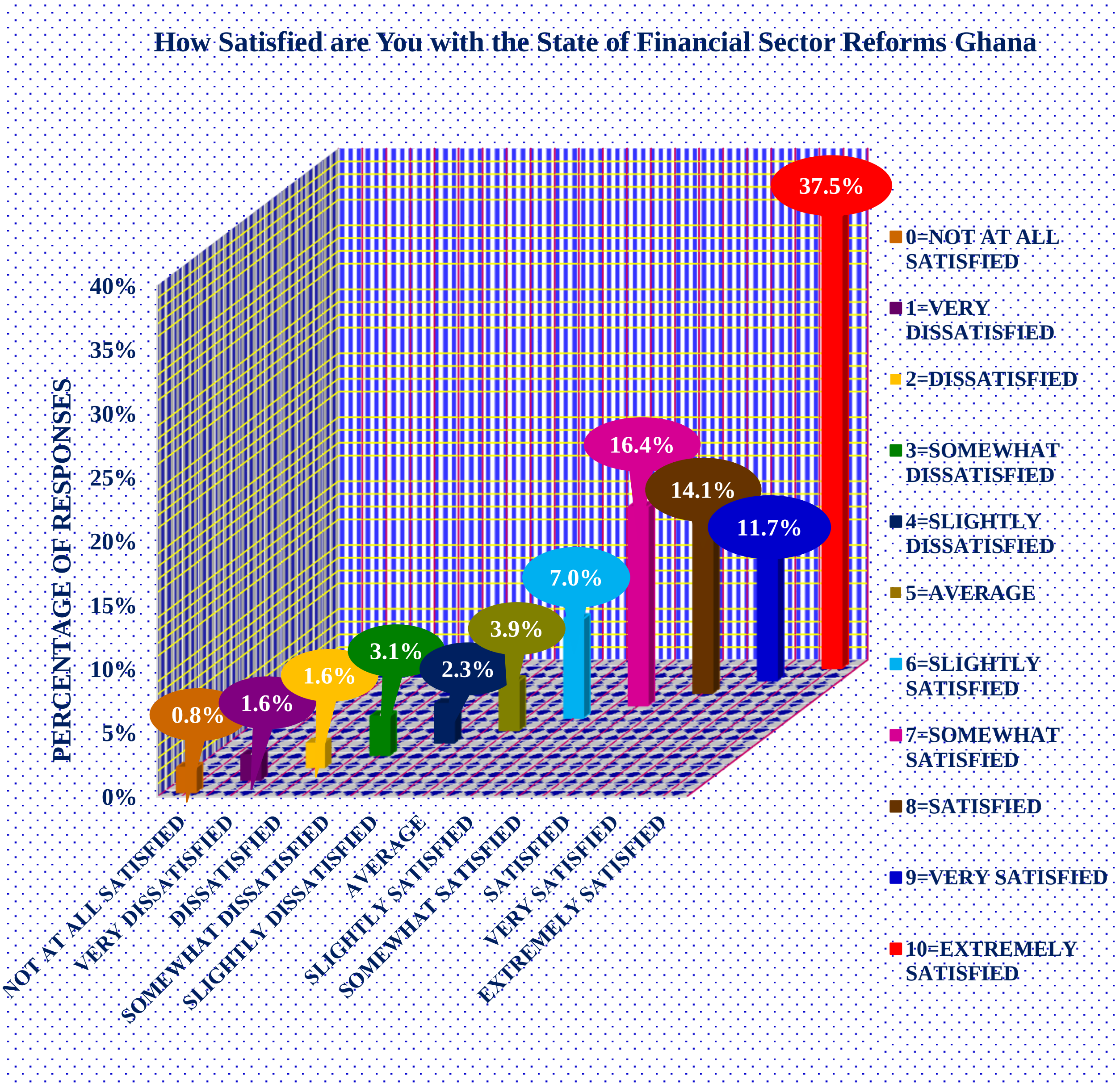
Table 4.4 Descriptive Statistics of Ages of Respondents

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
FREQUENCY	4	10.00	70.00	128.00	32.0000	26.63331
Valid N (listwise)	4					

Source: (Field survey, 2022).

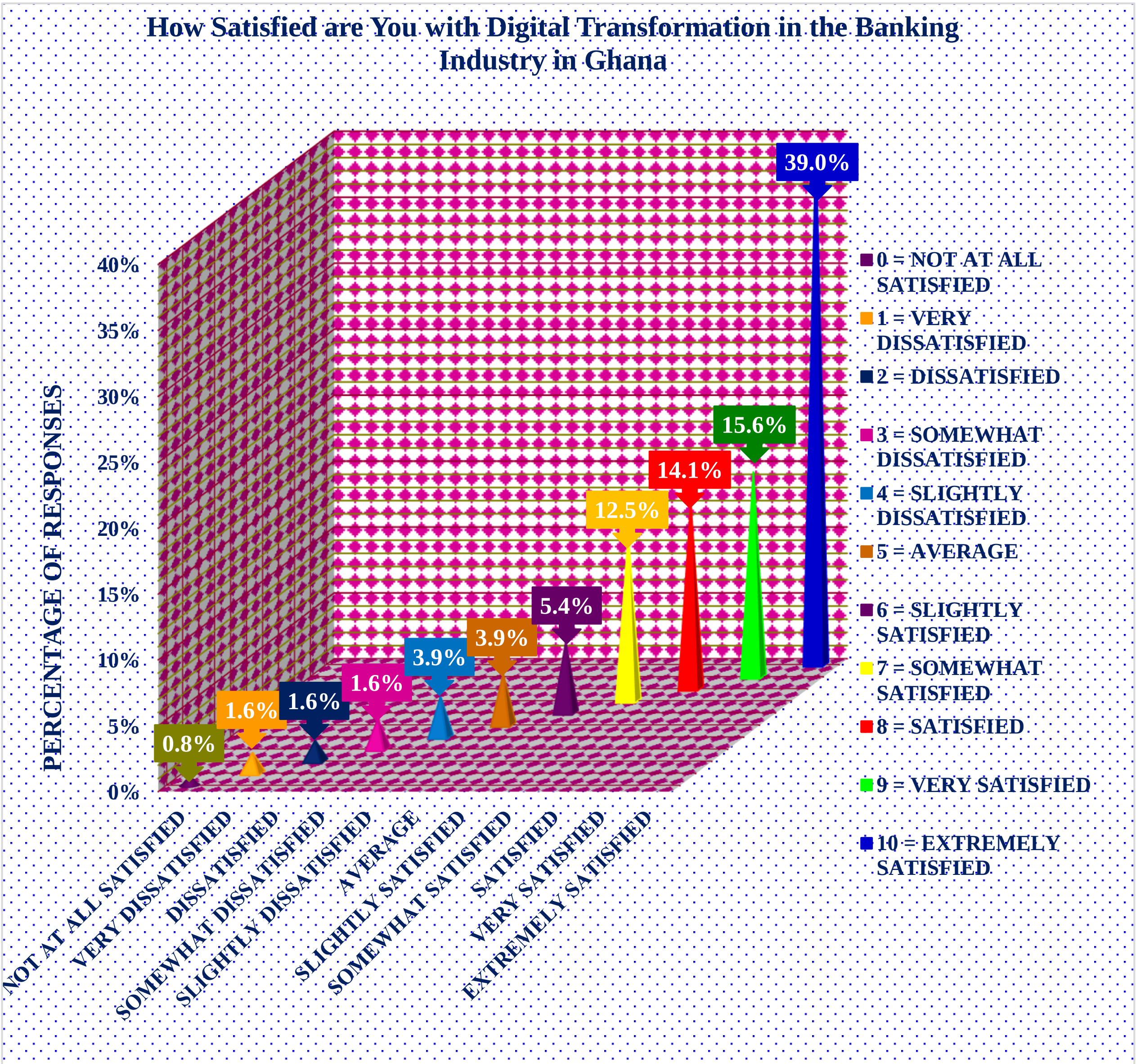
Figure 4.13 Satisfaction with the State of Financial Sector Reforms in Ghana



Source: (Field survey, 2022).

It was observed from figure 4.13 that **79.7 percent (102 respondents)** indicated that they were satisfied with the state of financial sector reforms in Ghana. On the other hand, it was observed from figure 4.13 that only **20.3 percent (26 respondents)** indicated that they were dissatisfied with the state of financial sector reforms in Ghana.

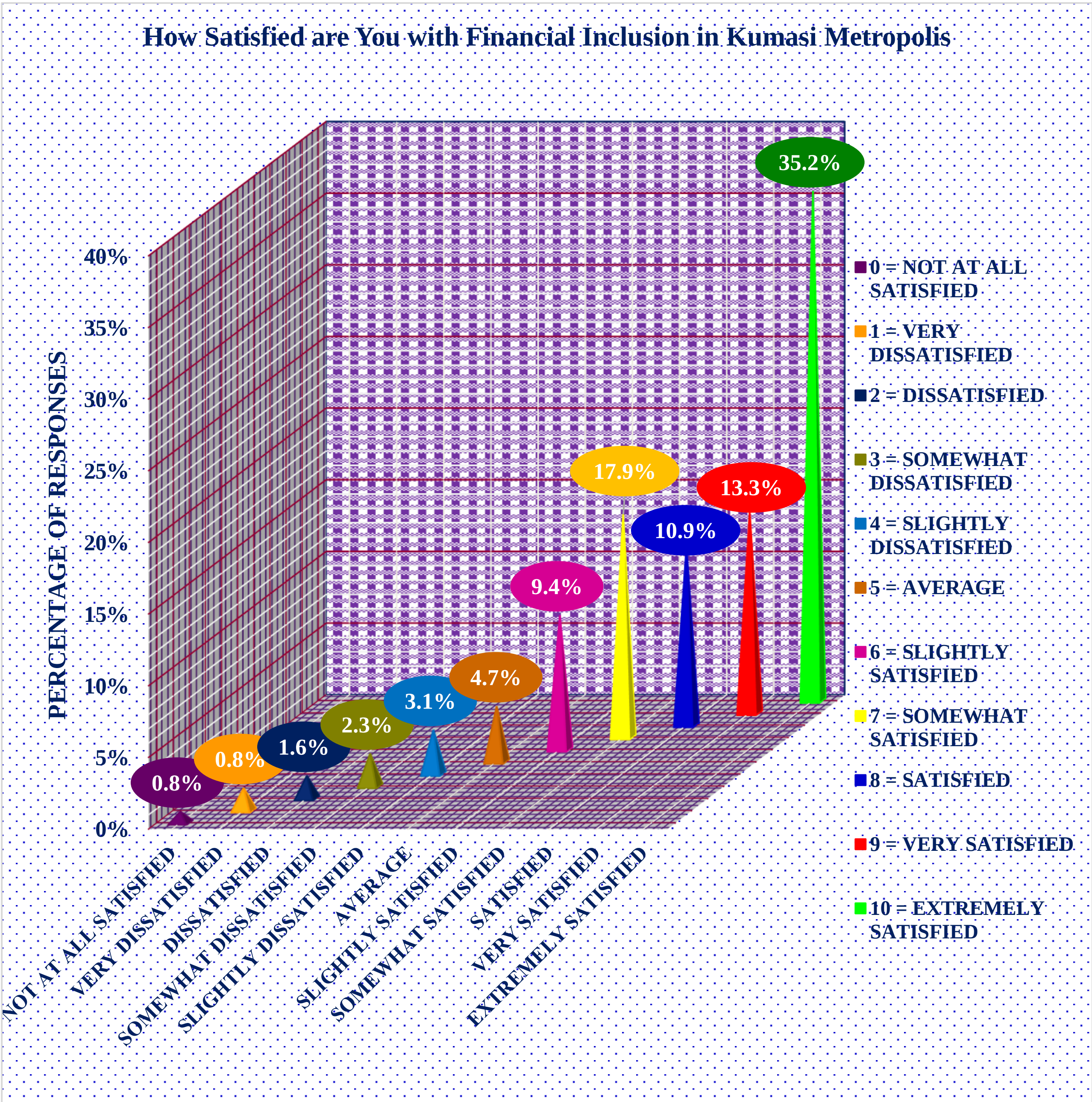
Figure 4.14 Satisfaction with Digital Transformation in the Banking Industry in Ghana



Source: (Field survey, 2022).

It was observed from figure 4.14 that **81.2 percent (104 respondents)** indicated that they were satisfied with digital transformation in the banking industry in Ghana. On the other hand, it was observed from figure 4.14 that only **18.8 percent (24 respondents)** indicated that they were dissatisfied with digital transformation in the banking industry in Ghana.

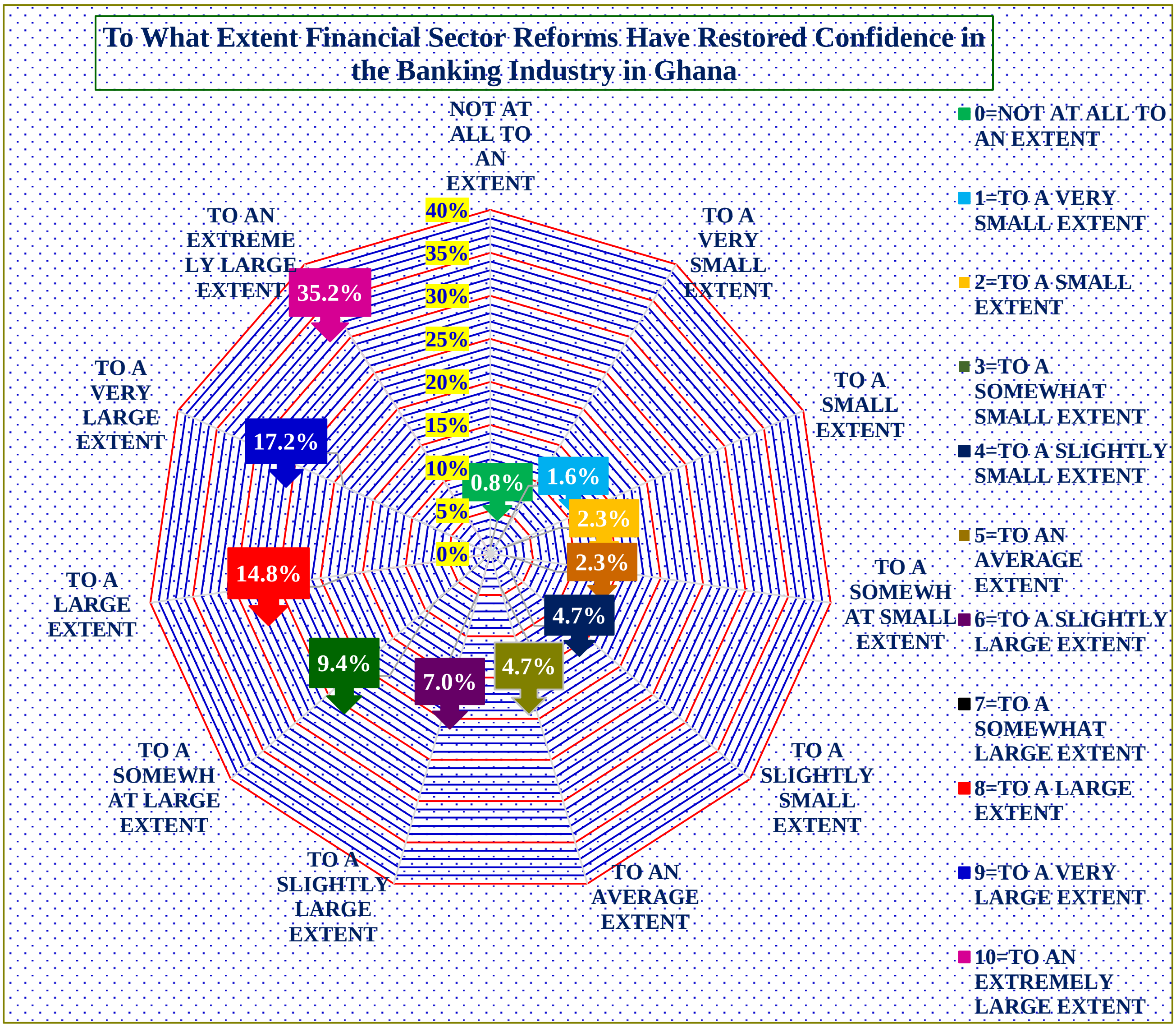
Figure 4.15 Satisfaction with Financial Inclusion in Kumasi Metropolis



Source: (Field survey, 2022).

It was observed from figure 4.15 that **77.3 percent (99 respondents)** indicated that they were satisfied with financial inclusion in Kumasi Metropolis, Ghana. On the other hand, it was observed from figure 4.15 that only **22.7 percent (29 respondents)** indicated that they were dissatisfied with financial inclusion in Kumasi Metropolis, Ghana. They felt the poor and some women are still excluded from accessing formal financial services in Kumasi Metropolis, Ghana.

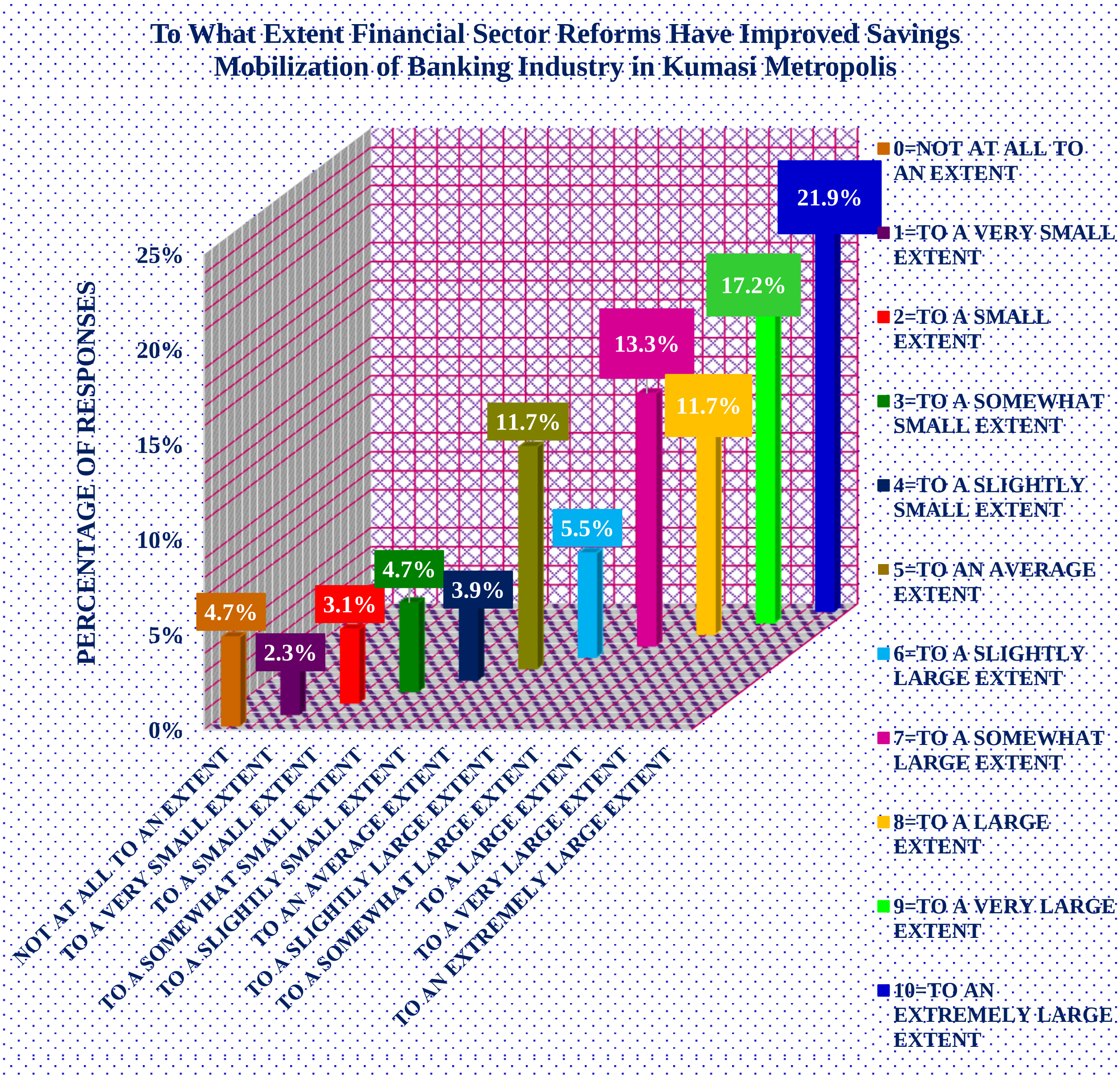
Figure 4.16 The Extent to which Financial Sector Reforms Have Restored Confidence in the Banking Industry in Ghana.



Source: (Field survey, 2022).

It was observed from figure 4.16 that **76.6 percent (98 respondents)** indicated that they believed the financial sector reforms have restored confidence in the banking industry to a large extent in Ghana. On the other hand, it was observed from figure 4.16 that only **23.4 percent (30 respondents)** indicated that they believed the financial sector reforms have restored confidence in the banking industry to a small extent in Ghana.

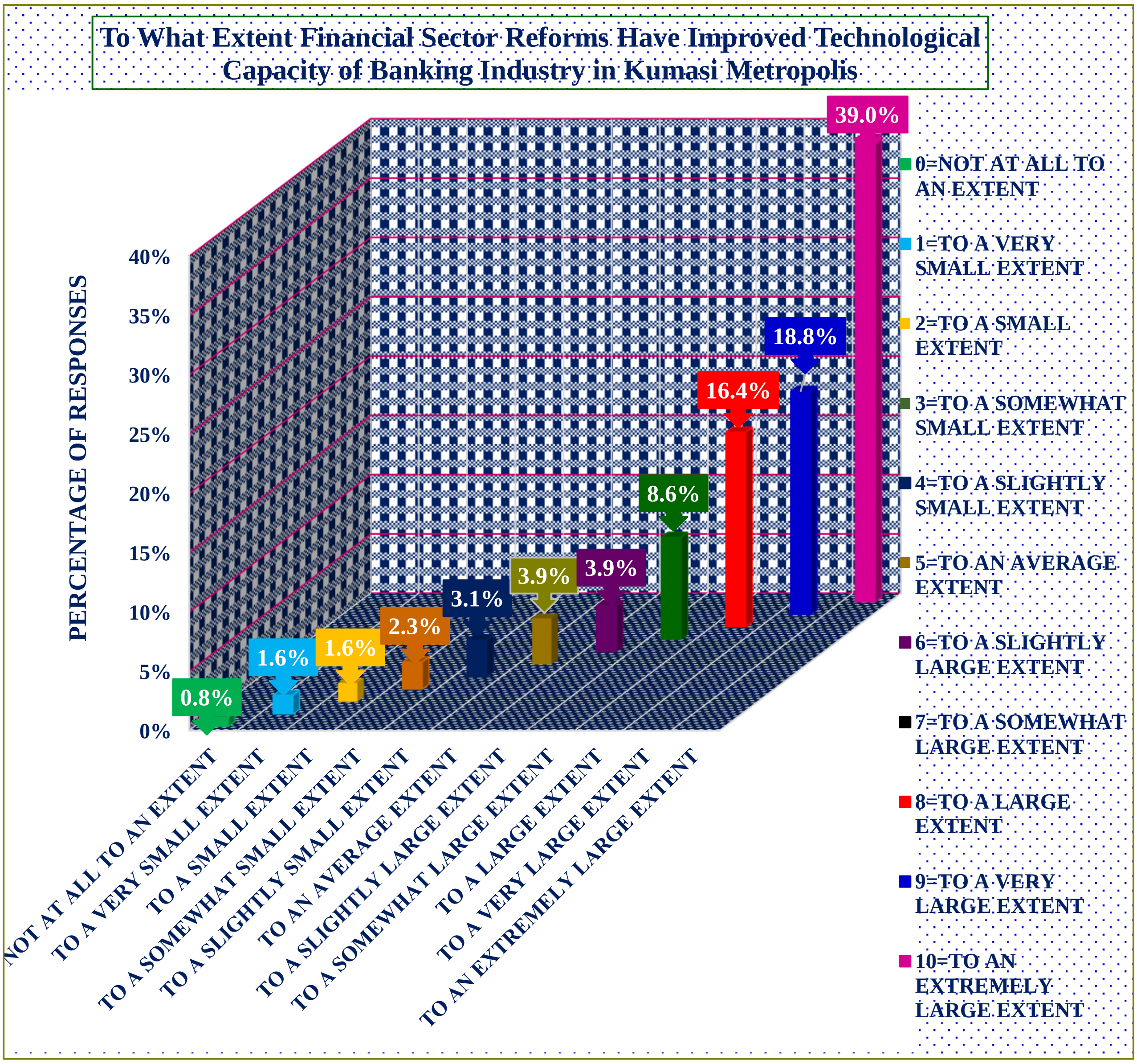
Figure 4.17 The Extent to which Financial Sector Reforms Have Improved Savings Mobilization of Banking Industry in Kumasi Metropolis, Ghana



Source: (Field survey, 2022).

It was observed from figure 4.17 that **64.1 percent (82 respondents)** indicated that they believed the financial sector reforms have improved savings mobilization of banking industry to a large extent in Kumasi Metropolis, Ghana. On the other hand, it was observed from figure 4.17 that only **35.9 percent (46 respondents)** indicated that they believed the financial sector reforms have improved savings mobilization of banking industry to a small extent in Kumasi Metropolis, Ghana.

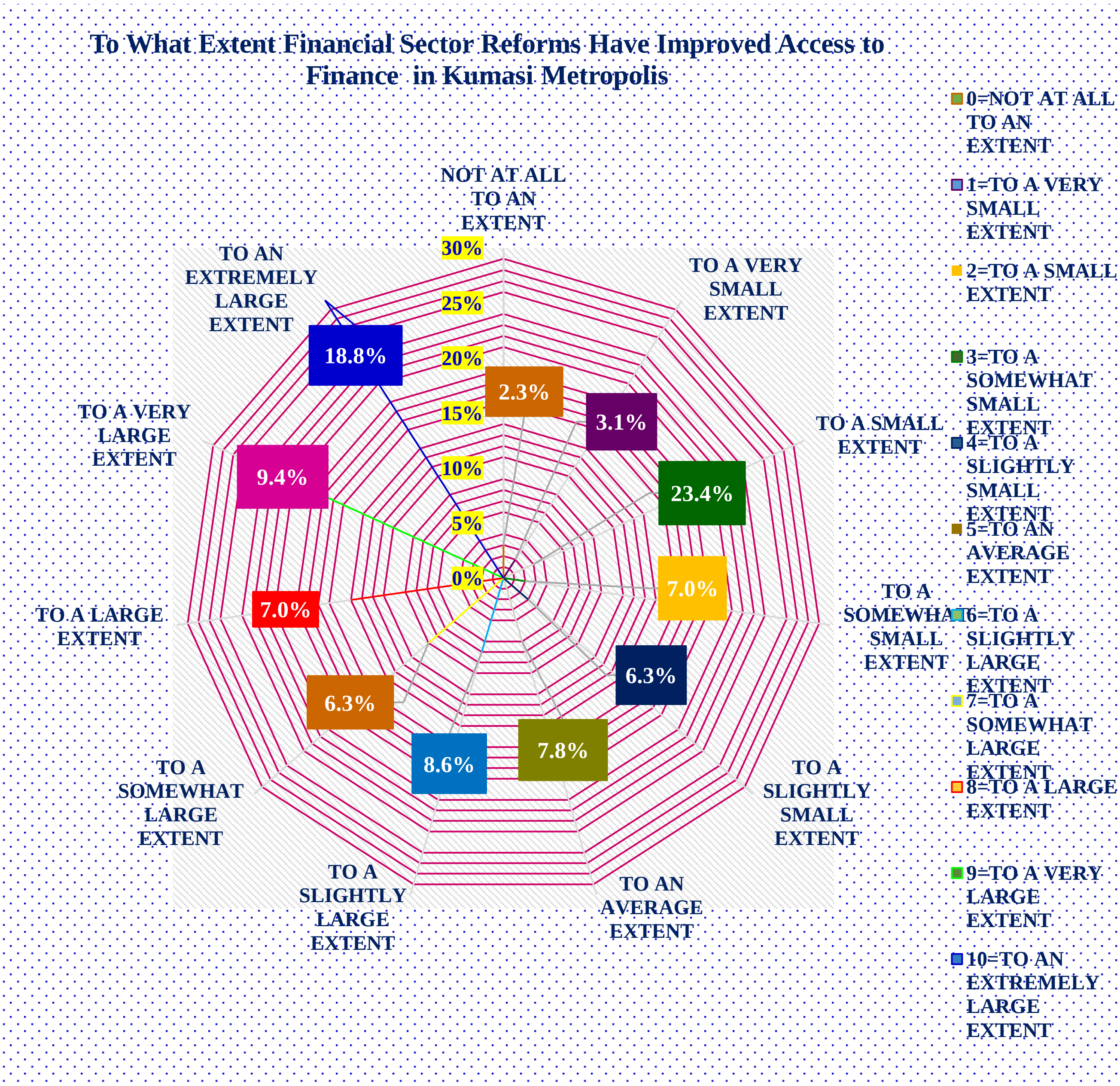
Figure 4.18 The Extent to which Financial Sector Reforms Have Improved Technological Capacity of Banking Industry in Kumasi Metropolis



Source: (Field survey, 2022).

It was observed from figure 4.18 that **82.8 percent (106 respondents)** indicated that they believed the financial sector reforms have improved technological capacity of banking industry to a large extent in Kumasi Metropolis, Ghana. On the other hand, it was observed from figure 4.18 that only **17.2 percent (22 respondents)** indicated that they believed the financial sector reforms have improved technological capacity of banking industry to a small extent in Kumasi Metropolis, Ghana.

Figure 4.19 The Extent to which the Financial Sector Reforms Have Improved Access to Finance in Kumasi Metropolis



Source: (Field survey, 2022).

It was observed from figure 4.19 that **58.6 percent (75 respondents)** indicated that they believed the financial sector reforms have improved access to finance to a small extent. On the other hand, it was observed from figure 4.19 that only **41.4 percent (53 respondents)** indicated that they believed the financial sector reforms have improved access to finance to a large extent in Kumasi Metropolis, Ghana.

4.4 State of Economic Growth in Ghana (Ghana's Real GDP Growth)

State of economic growth in Ghana proceeded this way:

It was observed that the economic growth of Ghana which was on a declining trend has been restored. Ghana has seeing a significant accelerated growth in the economy since the implementation of the third generation financial sector reforms (2017-2019). It was observed that Ghana's economic outlook appeared good and impressive over the study period. It was observed that the economy showed resilience, and the positive growth trajectory was set to continue. It was observed that all the macroeconomic indicators were impressive over the study period (2017-2019). However, Ghana's overall Real GDP Growth decreased in the last quarter of 2020 due to Covid-19 pandemic. It was observed that economic activities recovered in 2021, and continued on an upward trajectory despite Covid-19 pandemic. The economy has transformed from a low-income to a lower middle-income economy. As a result, domestic demand has grown strongly for consumer goods and services. Despite Ghana's recent transition to lower middle-income status, the informal sector remains large and Ghana remains reliant on three main commodities (gold, cocoa and oil) which makes it vulnerable to shocks in the global commodity market, constraining the country's ability to grow more rapidly.

4.4.1 Trend of Ghana's Economic Growth (Real GDP Growth)

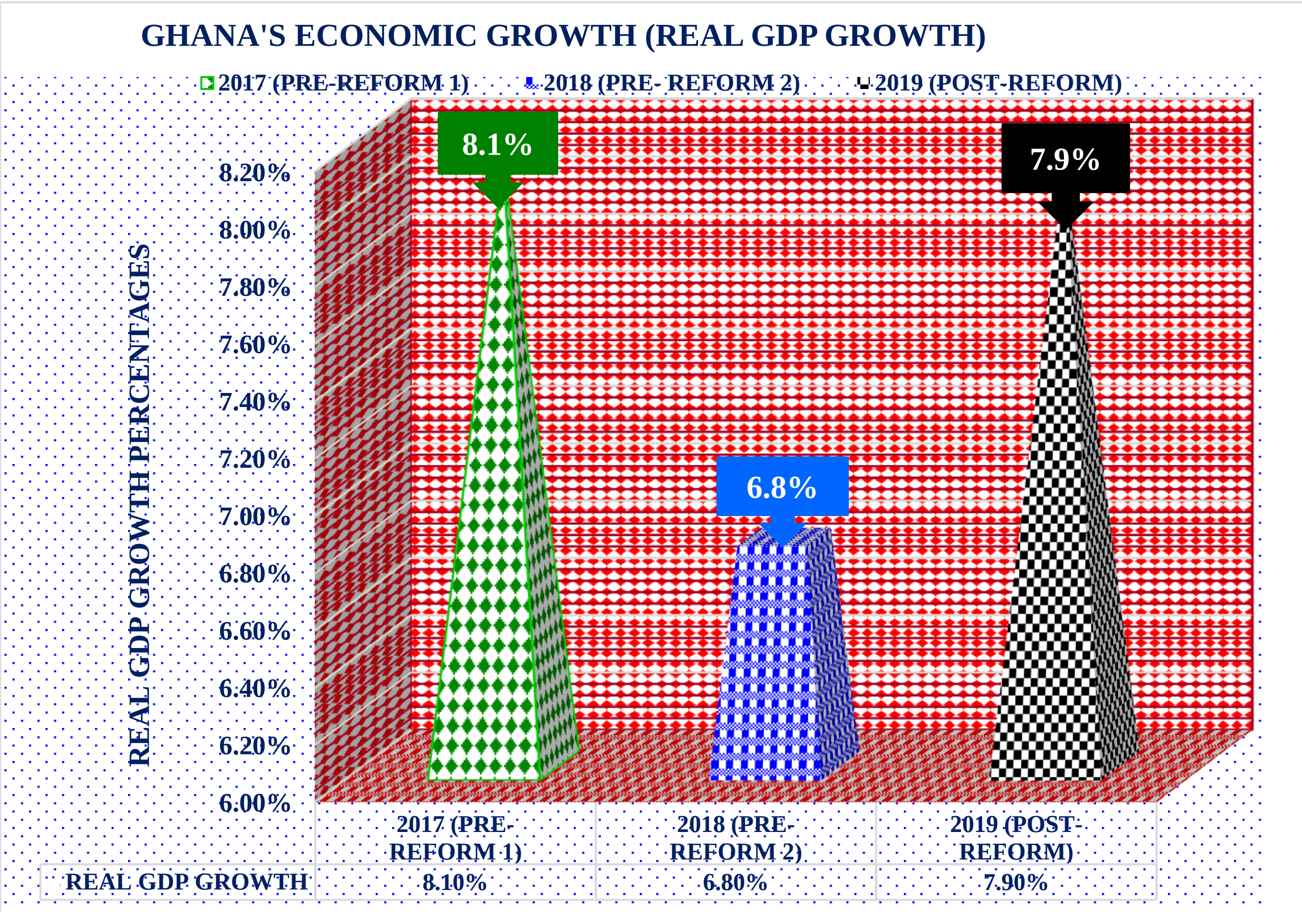
Table 4.5 Trend of Ghana's Economic Growth (Real GDP Growth) 2017-2019

INDICATORS	PRE-REFORM		POST REFORM
YEAR	2017	2018	2019
REAL GDP GROWTH	8.1%	6.8%	7.9%

Source: (Field work, 2022).

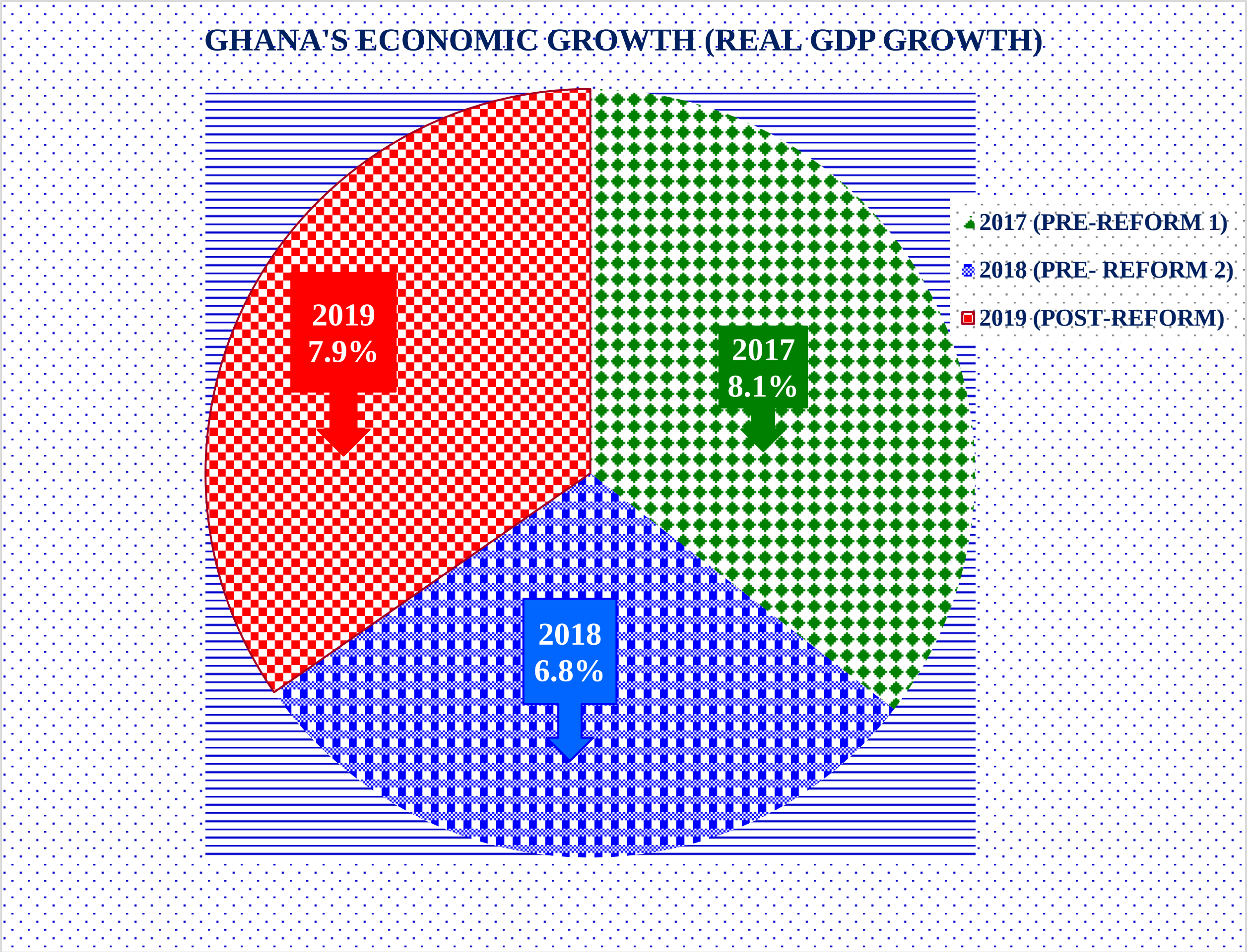
It was observed from Table 4.5; and Figure 4.20 as well as Figure 4.18 that Ghana's Real GDP Growth was 8.1 percent in 2017. Unfortunately, Ghana's Real GDP Growth decreased slightly from 8.1 percent in 2017 to 6.8 percent in 2018. However, Ghana's Real GDP Growth increased slightly from 6.8 percent in 2018 to 7.9 percent 2019, making Ghana's economy one of the world's 10 fastest-growing economies for the years under reviewed. This growth was partially driven by the three most productive sectors in the economy (agriculture, industry and services sectors), and significant improvement in the oil and gas, and stable macroeconomic conditions such as inflation rate, interest rate, and foreign exchange rate (Ghana Statistical Service, 2020; Tradingeconomics.com). However, Ghana's overall Real GDP Growth decreased in the last quarter of 2020 due to Covid-19 pandemic.

Figure 4.20 Ghana's Economic Growth (Real GDP Growth) 2017-2019



Source: (Field work, 2022).

Figure 4.21 Pie Chart: Ghana's Economic Growth (Real GDP Growth) 2017-2019



Source: (Field survey, 2022).

4.4.2 Sectoral Contribution to Ghana's Real GDP Growth 2017-2019

Table 4.6 Trend of Sectoral Contribution to Ghana's Real GDP Growth 2017-2019

SECTOR INDICATORS	PRE-REFORM		POST REFORM
YEAR	2017	2018	2019
AGRICULTURAL SECTOR	6%	4.8%	4.6%
INDUSTRY SECTOR	15.7%	10.6%	4.2%
SERVICES SECTOR	3.3 %	2.7%	7.6%

Source: (Field work, 2022).

4.4.2.1 Contribution of Agriculture Sector to Ghana's Real GDP Growth

It was observed from Table 4.6 and figure 4.22 that the contribution of agriculture sector to Ghana's Real GDP Growth was 6 percent in 2017. However, the contribution of agriculture sector to Ghana's Real GDP Growth decreased slightly from 6 percent in 2017 to 4.8 per cent in 2018. In the same vein, the contribution of agriculture sector to Ghana's Real GDP Growth decreased slightly again from 4.8 percent in 2018 to 4.6 percent in 2019.

4.4.2.2 Contribution of Industry Sector to Ghana's Real GDP Growth

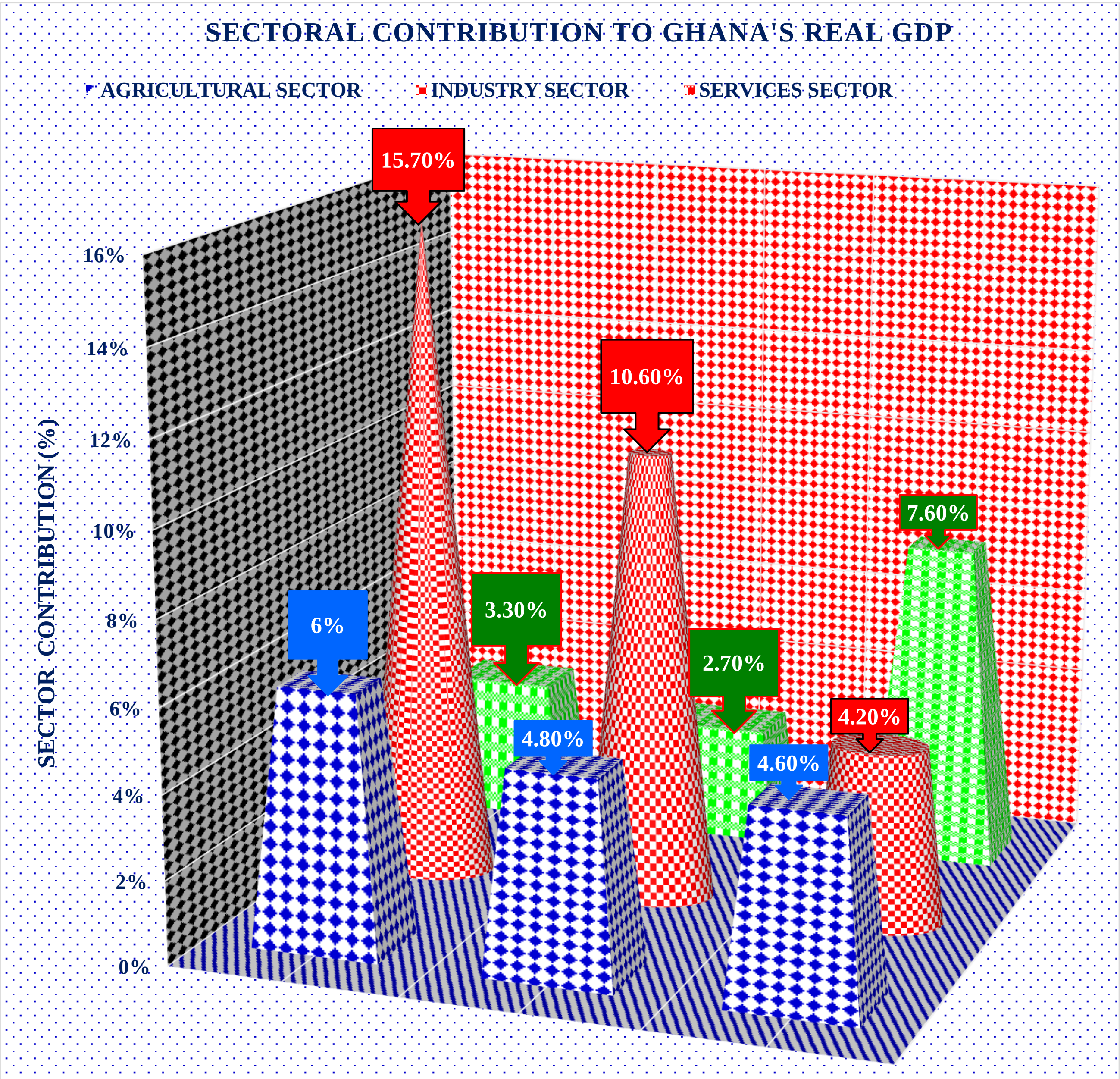
It was observed from Table 4.6 and figure 4.22 that the contribution of industry sector to Ghana's Real GDP Growth was 15.7 percent in 2017. However, the contribution of industry sector to Ghana's Real GDP Growth decreased widely from 15.7 percent in 2017 to 10.6 percent in 2018. Similarly, the contribution of industry sector to Ghana's Real GDP Growth decreased widely again from 10.6 percent in 2018 to 4.2 percent in 2019.

4.4.2.3 Contribution of Services Sector to Ghana's Real GDP Growth

Services is the largest sector of the Ghanaian economy but its contribution to Ghana's Real GDP Growth over the study period was below expectation.

It was observed from Table 4.6 and figure 4.22 that the contribution of services sector to Ghana's Real GDP Growth was 3.3 percent in 2017. However, the contribution of services sector to Ghana's Real GDP Growth decreased slightly from 3.3 percent in 2017 to 2.7 percent in 2018. On the other hand, the contribution of services sector to Ghana's Real GDP Growth increased sharply and widely from 2.7 percent in 2018 to 7.6 percent in 2019.

Figure 4.22 Sectoral Contribution to Ghana's Real GDP Growth 2017-2019



	2017 (PRE-REFORM 1)	2018 (PRE-REFORM 2)	2019 (POST-REFORM)
AGRICULTURAL SECTOR	6%	4.80%	4.60%
INDUSTRY SECTOR	15.70%	10.60%	4.20%
SERVICES SECTOR	3.30%	2.70%	7.60%

Source: (Field work, 2022).

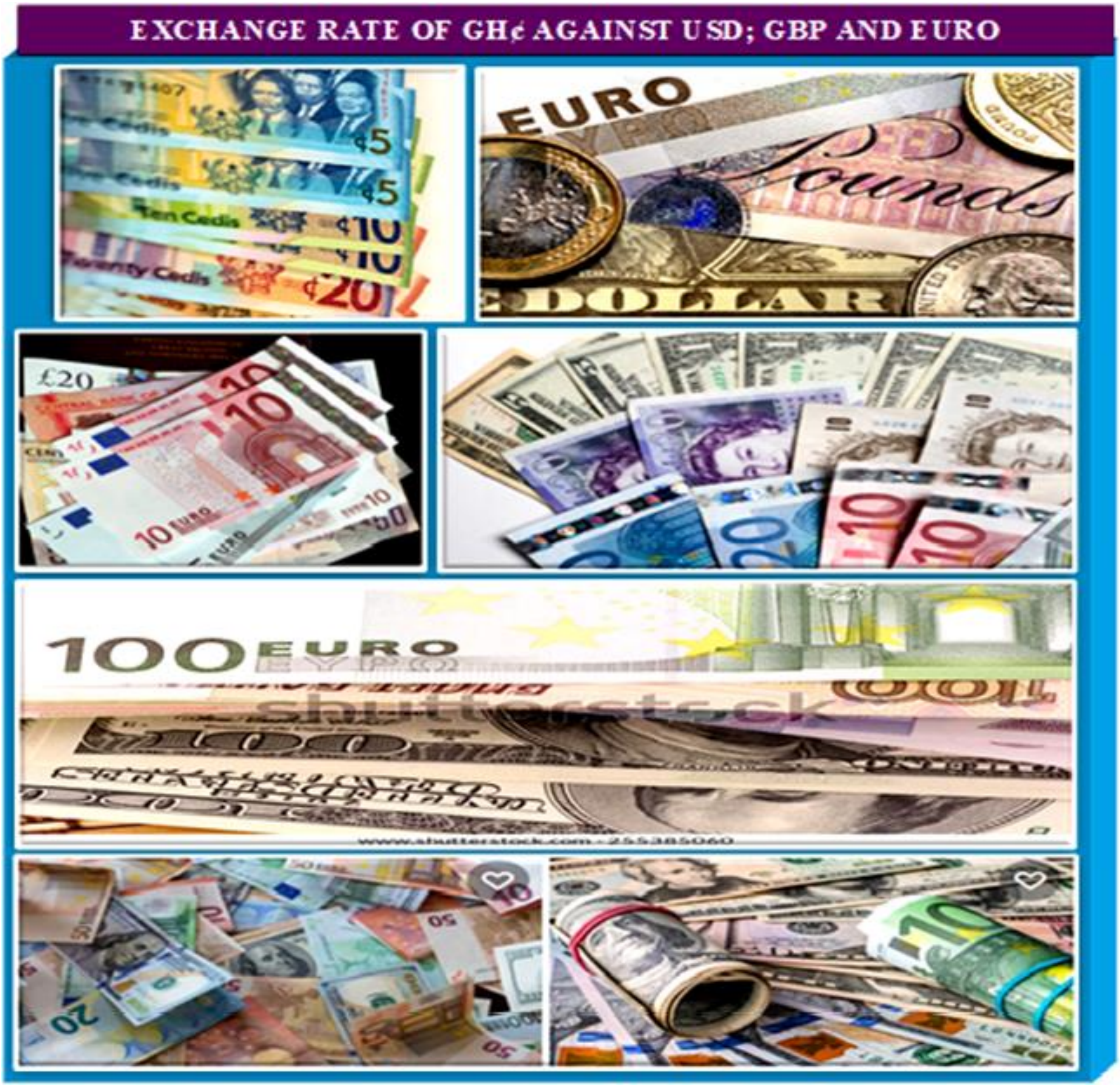
4.4.3 Macroeconomic Environment

It was observed that Ghana's macroeconomic stance was impressive. All the macroeconomic indicators were impressive over the study period (2017-2019).

4.4.3.1 Exchange Rate of Ghana Cedi (GH¢) Against Major Currencies

Figure 4.23 Exchange Rate of Ghana Cedi (GH¢) Against Major Currencies

Exchange Rate of Ghana Cedi (GH¢) Against Major Currencies (United States Dollar (USD); Great Britain Pound (GBP); and Europe Euro (EURO).



Source: (Field work, 2022). Compiled by Author based on materials gleaned from (www.bog.gov.gh; http://www.shutterstock.com.255385060).

Table 4.7 Exchange Rate of Ghana Cedi(GH¢) Against Major Currencies 2017-2019

EXCHANGE RATE INDICATORS	PRE-REFORM		POST REFORM
YEAR	2017	2018	2019
GH¢/USD US DOLLAR	4.4%	4.8%	5.5%
GH¢/GBP GB POUNDS	6.0%	6.2%	7.3%
GH¢/Euro EUROPE EURO	5.3%	5.5%	6.2%

Source: (Field work, 2022).

The exchange rate of Ghana's domestic currency, Ghana Cedi (GH¢) which was on an accelerated depreciation trend was stabilized over the study period.

It was observed from Table 4.7 and Figure 4.24, the Ghana Cedi (GH¢) maintained relative stability against the US Dollar (USD), the Great Britain Pounds (GBP), and the Europe Euro (EURO) between 2017 and 2019. However, Ghana Cedi has depreciated against all major currencies as at December, 2021.

4.4.3.2 Exchange Rate of Ghana Cedi (GH¢) Against United State Dollar (USD)

It was observed from Table 4.7 and Figure 4.24 that the Ghana Cedi (GH¢) depreciated by 4.4 percent to United State Dollar (USD) in 2017. However, the Ghana Cedi (GH¢) depreciated by 4.8 percent to United State Dollar (USD) in 2018. On the other hand, the Ghana Cedi (GH¢) depreciated by 5.5 percent to United State Dollar (USD) in 2019.

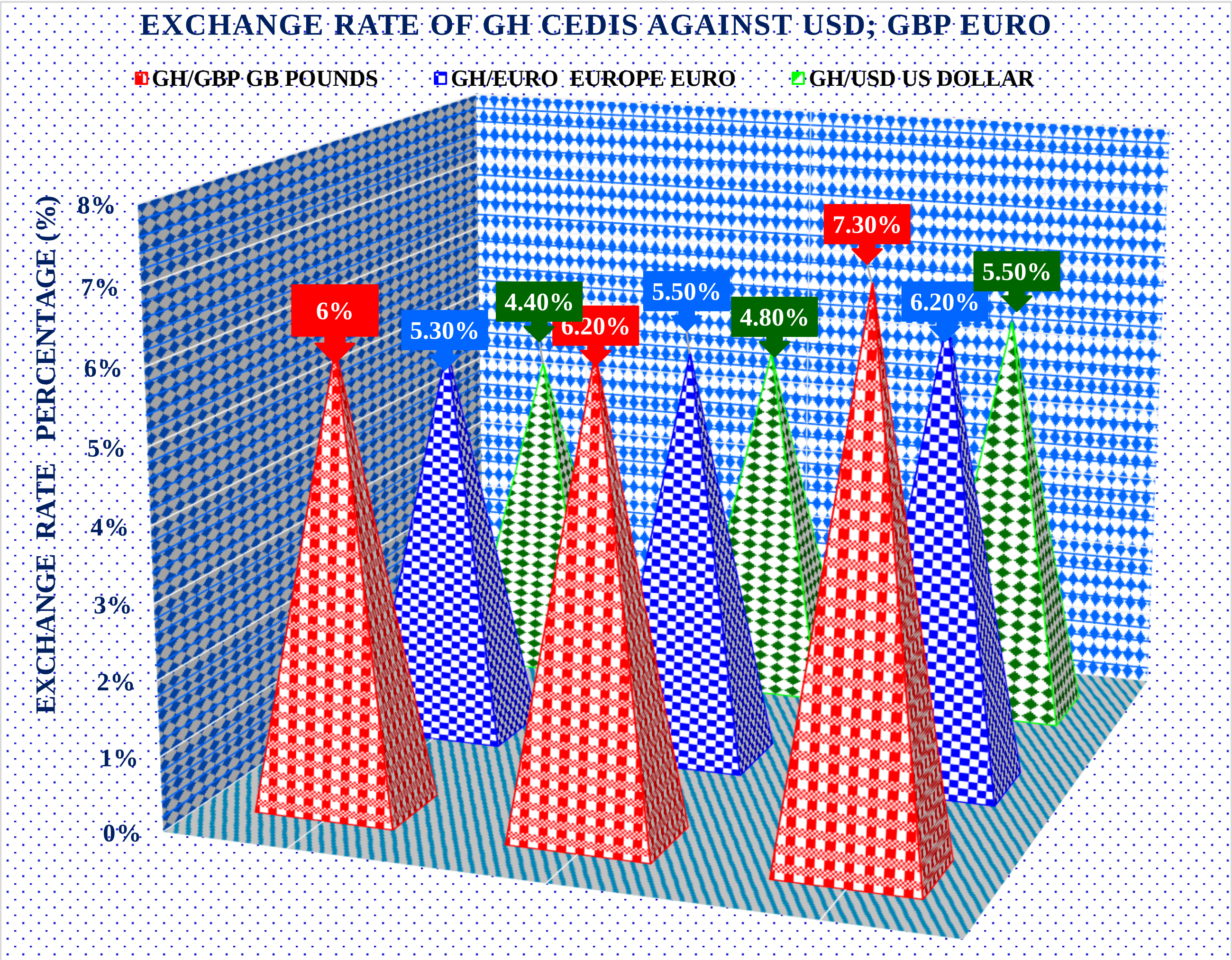
4.4.3.3 Exchange Rate of Ghana Cedi (GH¢) Against Great Britain Pound (GBP)

In the same vein, it was observed from Table 4.7 and Figure 4.24 that the Ghana Cedi (GH¢) depreciated by 6.0 percent to Great Britain Pound (GBP) in 2017. On the other hand, the Ghana Cedi (GH¢) depreciated by 6.2 percent to Great Britain Pound (GBP) in 2018. However, the Ghana Cedi (GH¢) depreciated by7.3 percent to Great Britain Pound (GBP) in 2019.

4.4.3.4 Exchange Rate of Ghana Cedi (GH¢) Against Europe Euro (EURO)

Similarly, it was observed from Table 4.7 and Figure 4.24 that the Ghana Cedi (GH¢) depreciated by 5.3 percent to Europe Euro (EURO) in 2017. However, the Ghana Cedi (GH¢) depreciated by 5.5 percent to Europe Euro (EURO) in 2018. On the other hand, the Ghana Cedi (GH¢) depreciated by 6.2 percent to Europe Euro (EURO) in 2019.

Figure 4.24 Exchange Rate of Ghana (GH¢) Against Major Currencies 2017-2019.



	2017 (PRE-REFORM 1)	2018 (PRE-REFORM 2)	2019 (POST-REFORM)
GH/GBP GB POUNDS	6%	6.20%	7.30%
GH/EURO EUROPE EURO	5.30%	5.50%	6.20%
GH/USD US DOLLAR	4.40%	4.80%	5.50%

Source: (Field work, 2022).

4.4.3.5 Interest Rate in Ghana

Table 4.8 Interest Rate in Ghana 2017-2019

INTEREST RATE INDICATORS	PRE-REFORM		POST REFORM
YEAR	2017	2018	2019
MONETARY POLICY RATE	20.0%	17.0%	16.0%
AVERAGE LENDING RATE	29.3%	26.9%	23.6%
3-MONTH AVERAGE DEPOSIT RATE	13.0%	11.5%	11.5%

Source: (Field work, 2022).

The interest rate in Ghana which was on a higher trend has been stabilized. It was observed from Table 4.8 and Figure 4.25 that the monetary policy rate, the average lending rate and the 3-month average deposit rate have been stabilized over the study period (2017-2019).

4.4.3.6 The Monetary Policy Rate

It was observed from Table 4.8 and Figure 4.25 that the monetary policy rate was 20.0 percent in 2017. However, the monetary policy rate declined from 20.0 percent in 2017 to 17.0 percent in 2018. Similarly, the monetary policy rate declined from 17.0 percent in 2018 to 16.0 percent in 2019.

4.4.3.7 The Average Lending Rate

It was observed from Table 4.8 and Figure 4.25 that the average lending rate was 29.3 percent in 2017. However, the average lending rate declined from 29.3 percent in 2017 to 26.9 percent in 2018. In the same vein, the average lending rate declined from 26.9 percent in 2018 to 23.6 percent in 2019.

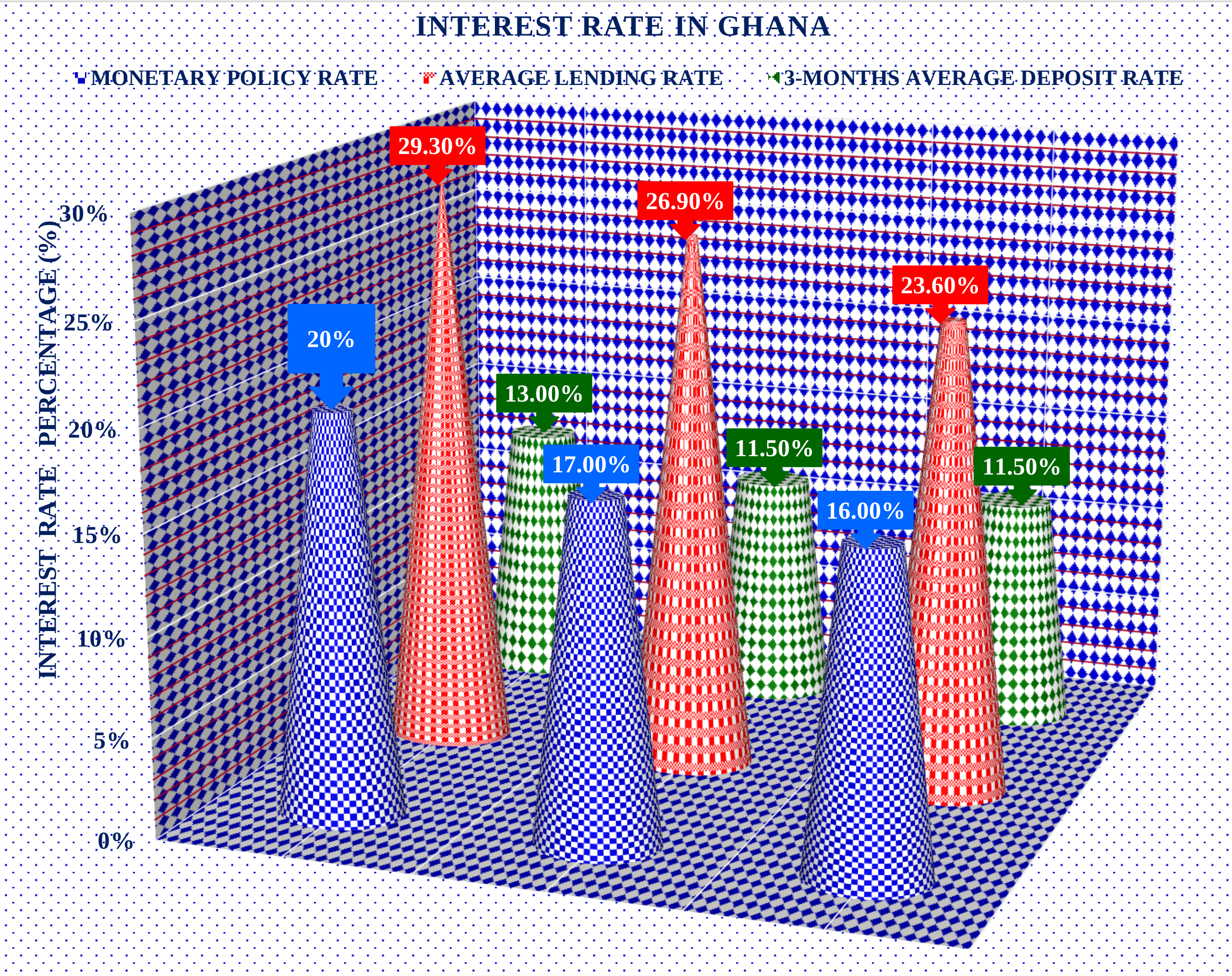
4.4.3.8 The 3-Month Average Deposit Rate

It was observed from Table 4.8 and Figure 4.25 that the 3-month average deposit rate was 13.0 percent in 2017. However, the 3-month average deposit rate declined from

13.0 percent in 2017 to 11.5 percent in 2018. On the other hand, the 3-month average deposit rate in 2019 remained unchanged at 11.5 percent as in 2018.

It is not right that the Central bank's monetary policy rate stood at 16 percent whiles the universal banks average lending rate stood at 23. 6 percent. The Bank of Ghana should bridge the gap between its monetary policy rate and the average lending interest rates of the universal banks to enhance the rapid economic growth of Ghana.

Figure 4.25 Interest Rate in Ghana 2017-2019



	2017 (PRE-REFORM 1)	2018 (PRE-REFORM 2)	2019 (POST-REFORM)
MONETARY POLICY RATE	20%	17.00%	16.00%
AVERAGE LENDING RATE	29.30%	26.90%	23.60%
3-MONTHS AVERAGE DEPOSIT RATE	13.00%	11.50%	11.50%

Source: (Field work, 2022).

4.4.3.9 Inflation Rate (Consumer Price Index (CPI) in Ghana

Table 4.9 Trend of Inflation Rate (Consumer Price Index (CPI) in Ghana 2017-2019

INFLATION RATE (CPI) INDICATORS	PRE-REFORM		POST REFORM
YEAR	2017	2018	2019
OVERALL INFLATION	11.8%	9.4%	7.9%
FOOD INFLATION	8.0%	8.7%	7.2%
NON-FOOD INFLATION	13.6%	9.8%	8.5%

Source: (Field work, 2022).

The inflation rate (Consumer Price Index (CPI) in Ghana which was on a rising trend has been stabilized.

It was observed from Table 4.9 and Figure 4.26 that the overall inflation rate, the food inflation rate and the non-food inflation rate have remained single-digit since 2018, and been stabilized over the study period (2017-2019).

4.4.3.10 The Overall Inflation Rate

It was observed from Table 4.9 Figure 4.26 that the overall inflation rate was 11.8 percent in 2017. However, the overall inflation rate declined sharply from 11.8 percent in 2017 to 9.4 percent in 2018. Similarly, the overall inflation rate declined from 17.0 percent in 2018 to 16.0 percent in 2019.

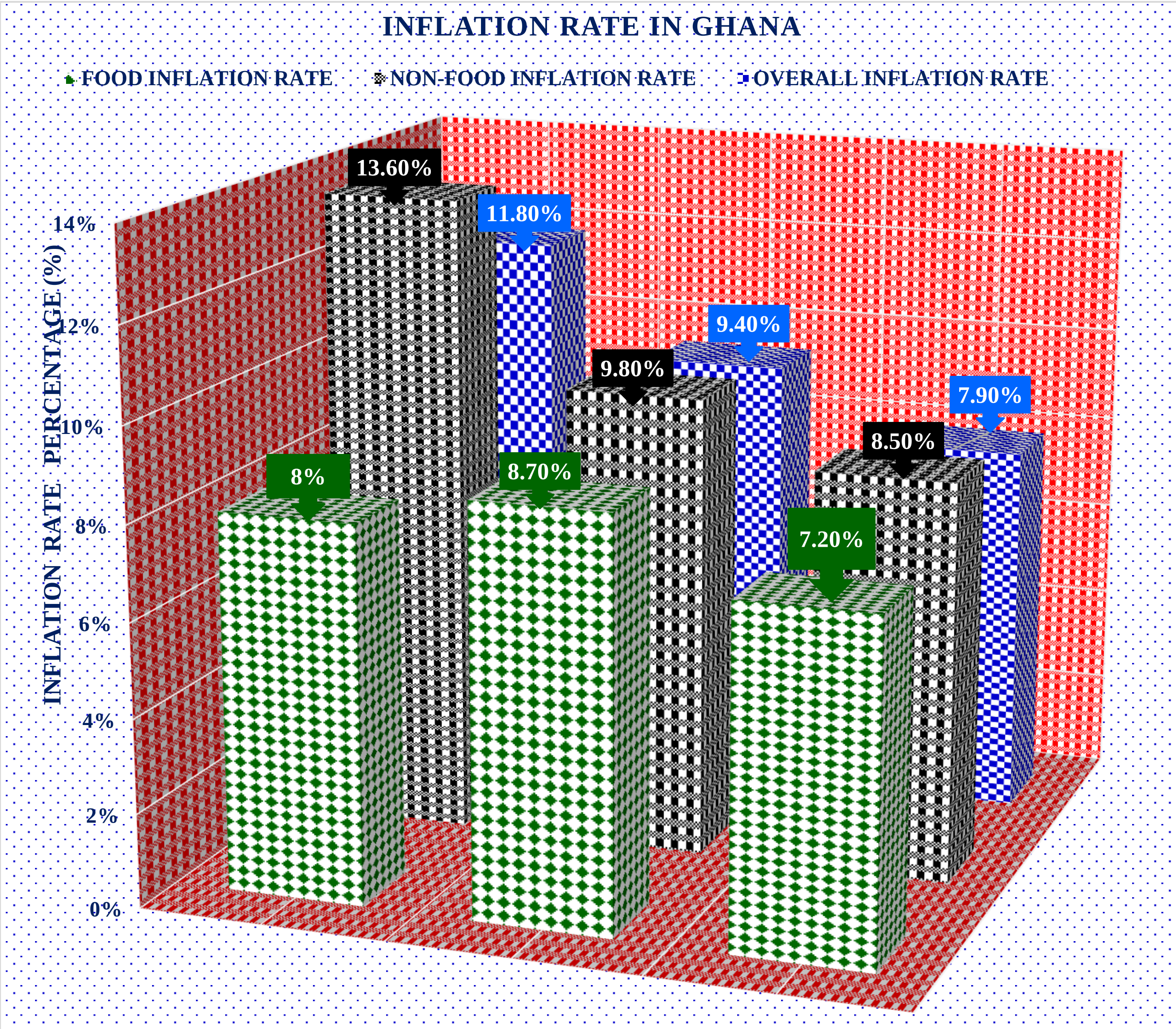
4.4.3.11 The Food Inflation Rate

It was observed from Table 4.9 and Figure 4.26 that the food inflation rate was 8.0 percent in 2017. However, the food inflation rate increased slightly from 8.0 percent in 2017 to 8.7 percent in 2018. On the other hand, the food inflation rate declined slightly from 8.7 percent in 2018 to 7.2 percent in 2019.

4.4.3.12 The Non-Food Inflation Rate

It was observed from Table 4.9 and Figure 4.26 that the non-food inflation rate was 13.6 percent in 2017. However, the non-food inflation rate declined sharply from 13.6 percent in 2017 to 9.8 percent in 2018. Similarly, the non-food inflation rate declined slightly from 9.8 percent in 2018 to 8.5 percent in 2019. Figure 4.25 illustrates the trend of inflation rate in Ghana between 2017 and 2019.

Figure 4.26 Inflation Rate (Consumer Price Index (CPI) in Ghana 2017-2019

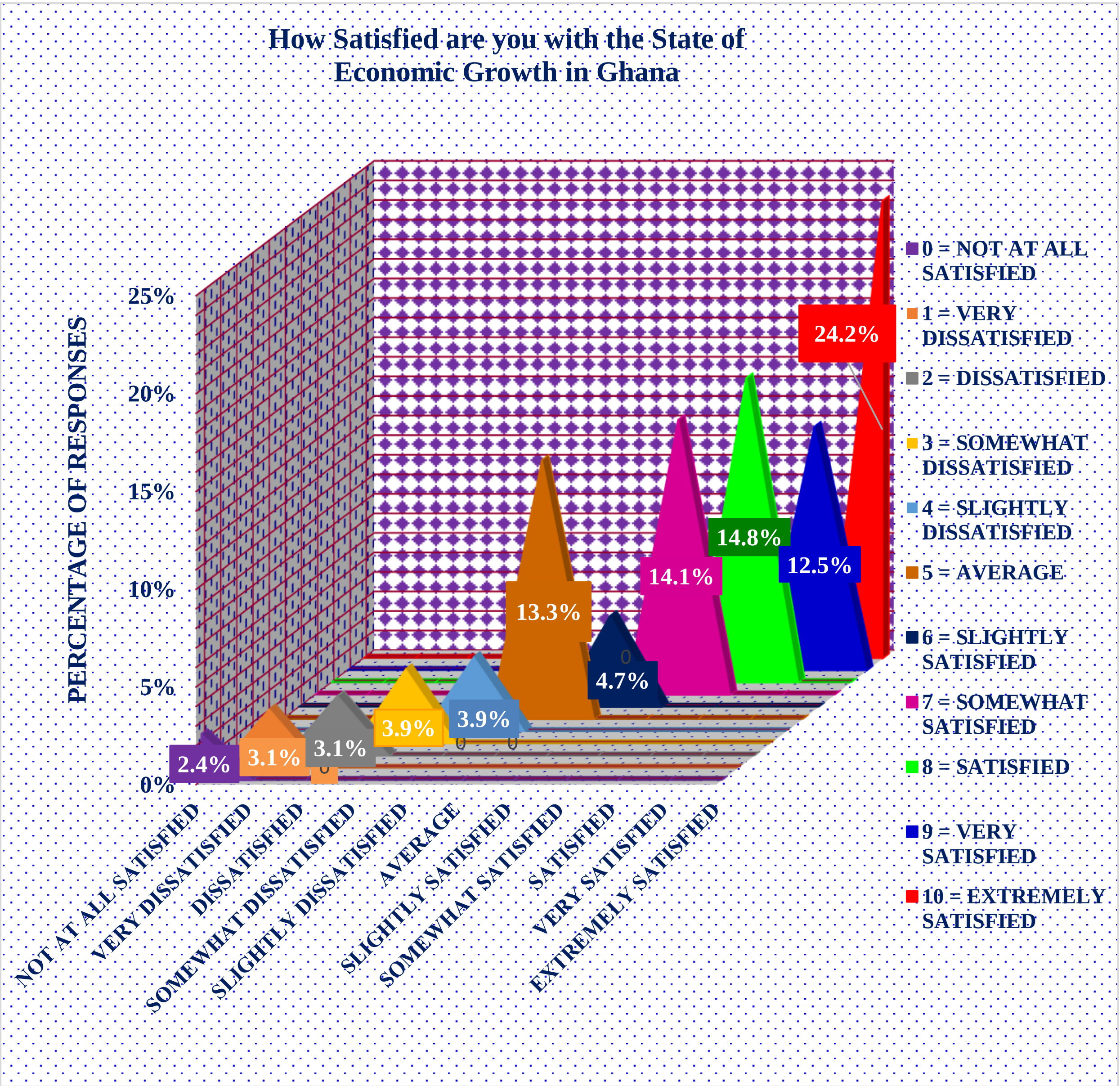


	2017 (PRE-REFORM 1)	2018 (PRE-REFORM 2)	2019 (POST-REFORM)
FOOD INFLATION RATE	8%	8.70%	7.20%
NON-FOOD INFLATION RATE	13.60%	9.80%	8.50%
OVERALL INFLATION RATE	11.80%	9.40%	7.90%

Source: (Field work, 2022).

4.5 Survey Responses on the State of Economic Growth

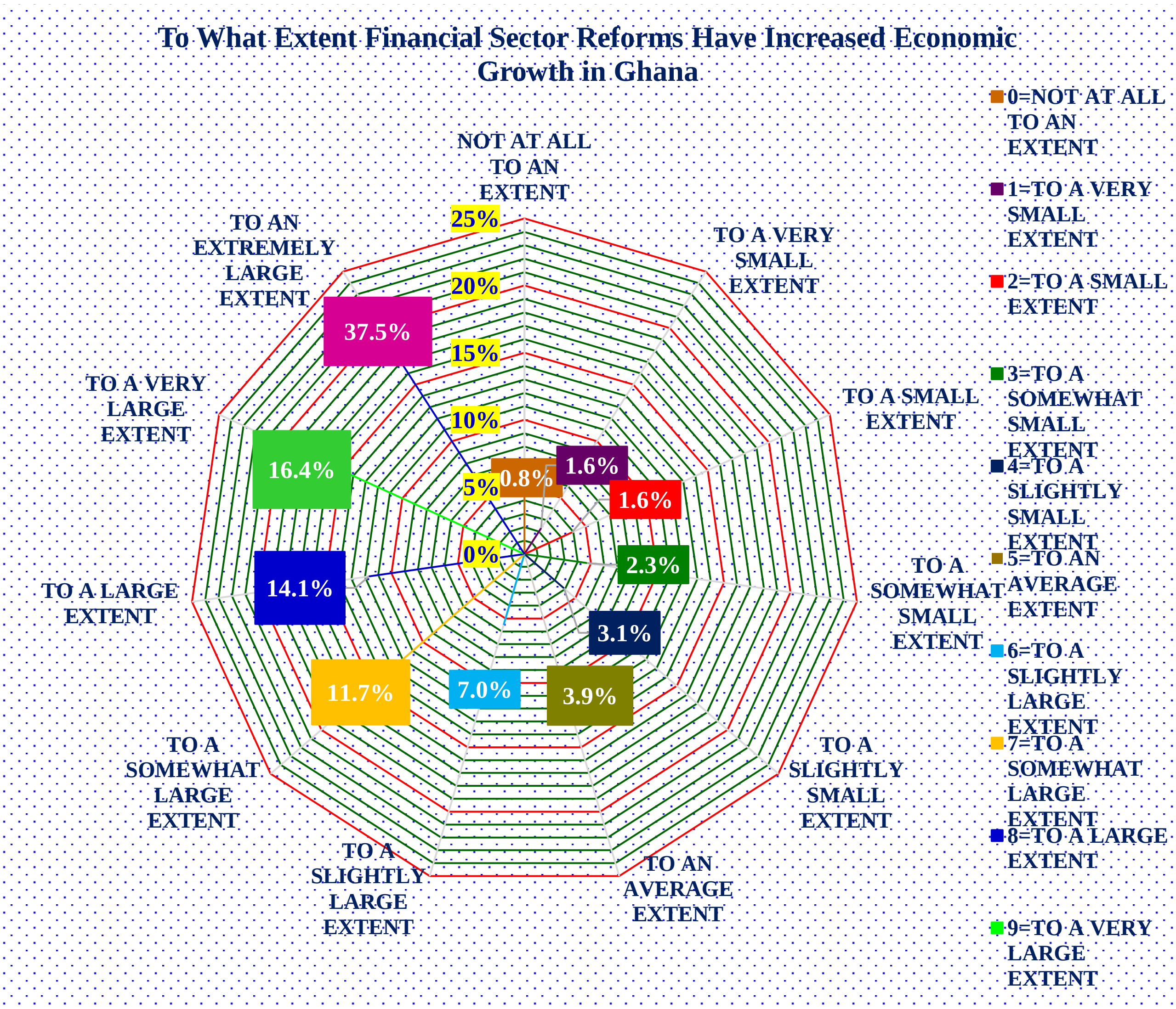
Figure 4.27 Satisfaction with the State of Economic Growth in Ghana**.**



Source: (Field survey, 2022).

It was observed from figure 4.27 that **65.6 percent (84 respondents)** indicated that they were satisfied with the state of economic growth Ghana. On the other hand, it was observed from figure 4.27 that only **34.4 percent (44 respondents)** indicated that they were dissatisfied with the state of economic growth in Ghana.

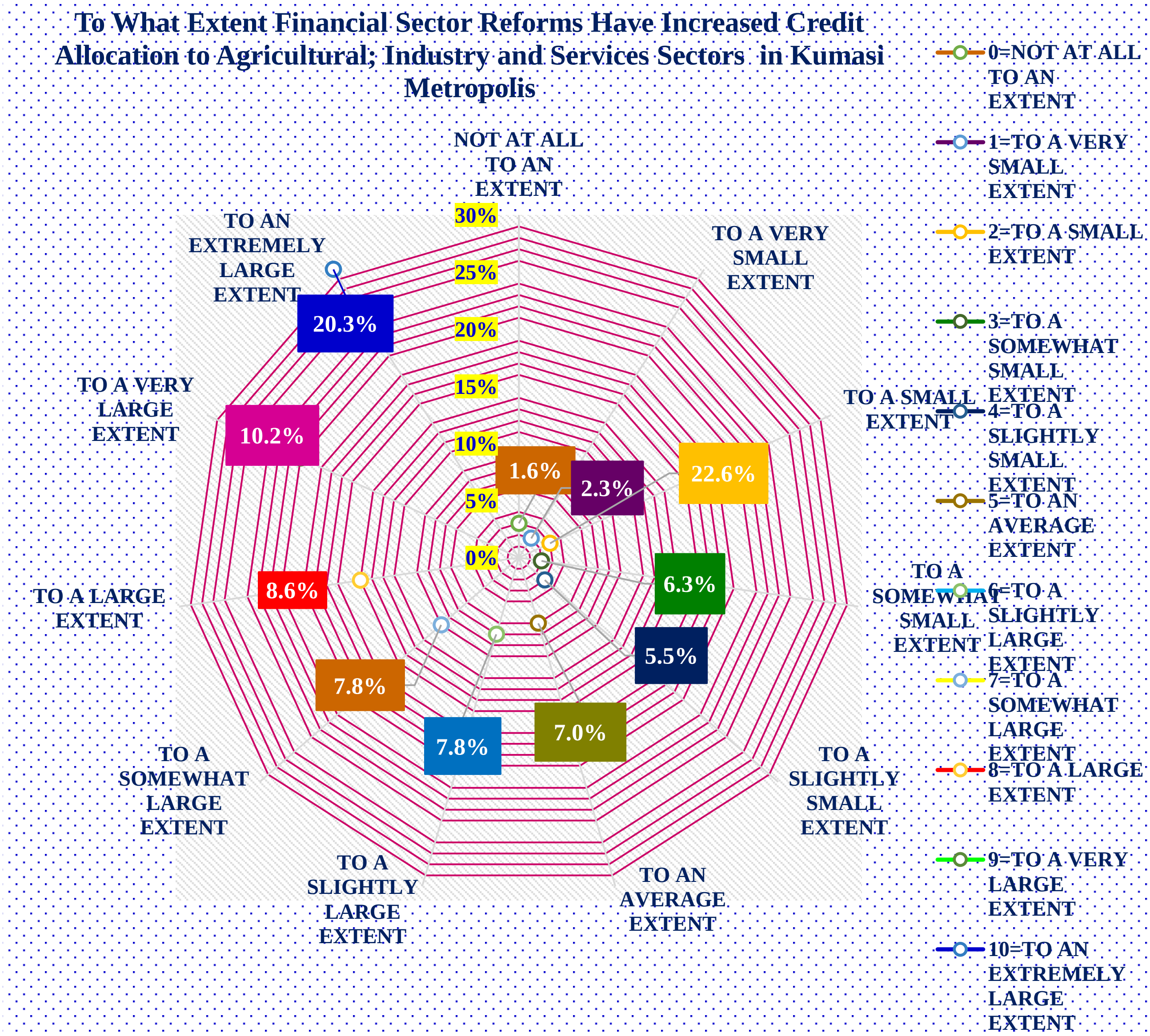
Figure 4.28 The Extent to which Financial Sector Reforms Have Increased Economic Growth in Ghana



Source: (Field survey, 2022).

It was observed from figure 4.28 that **79.7 percent (102 respondents)** indicated that they believed the financial sector reforms have increased economic growth to a large extent in Ghana. On the other hand, it was observed from figure 4.28 that only **20.3 percent (26 respondents)** indicated that they believed the financial sector reforms have increased economic growth to a small extent in Ghana.

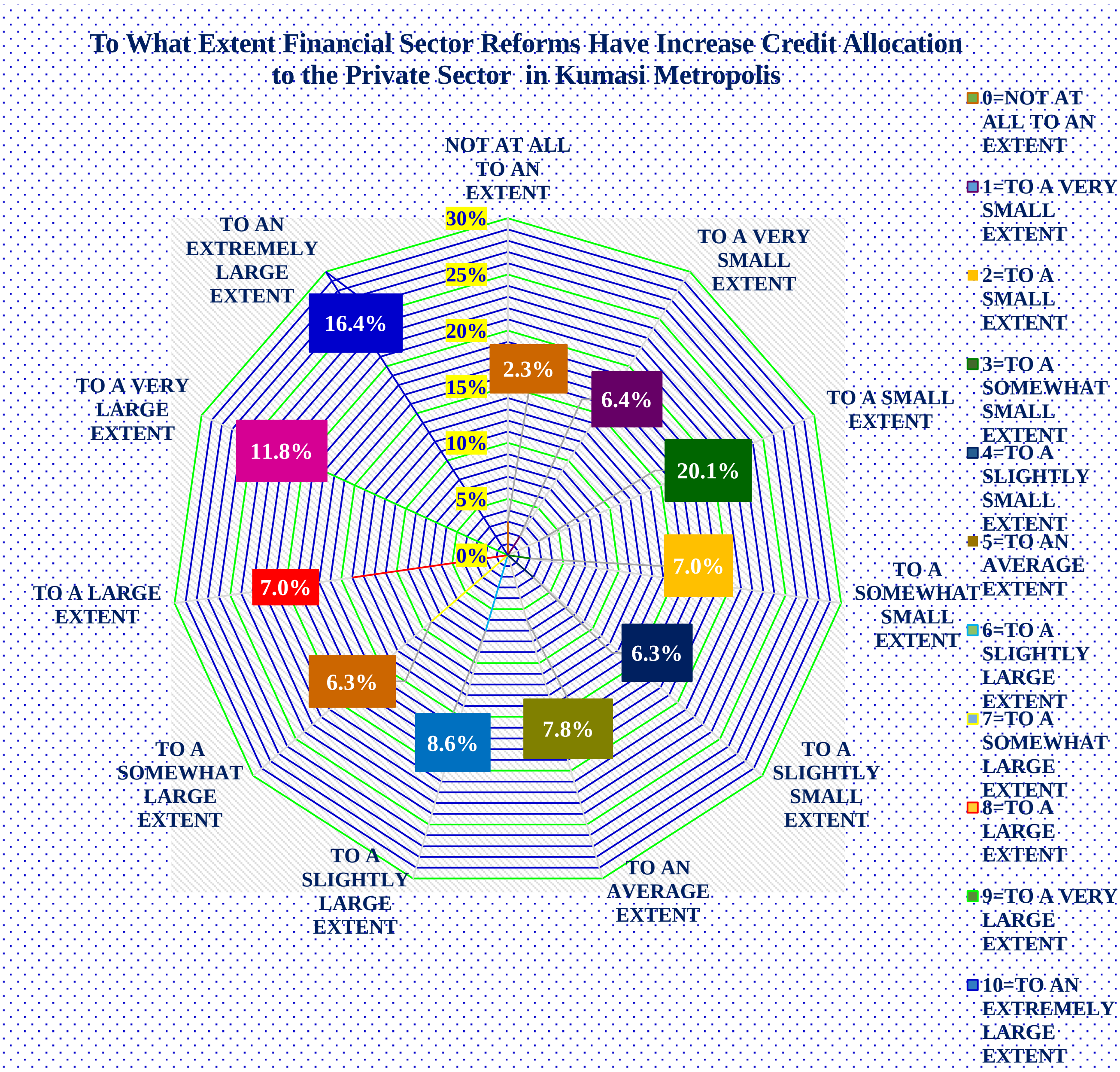
Figure 4.29 The Extent to which the Financial Sector Reforms Have Increased Credit Allocation to Agricultural; Industry and Services Sectors in Kumasi Metropolis



Source: (Field survey, 2022).

It was observed from figure 4.29 that **53.1 percent (68 respondents)** indicated that they believed the financial sector reforms have increased credit allocation to agricultural, industry and services sectors to a small extent in Kumasi Metropolis, Ghana. On the other hand, it was observed from figure 4.29 that only **46.9 percent (60 respondents)** indicated that they believed the financial sector reforms have increased credit allocation to agricultural, industry and services sectors to a large extent in Kumasi Metropolis, Ghana.

Figure 4.30 The Extent to which the Financial Sector Reforms Have Increased Credit Allocation to the Private Sector in Kumasi Metropolis



Source: (Field survey, 2022).

It was observed from figure 4.30 that **58.6 percent (75 respondents)** indicated that they believed the financial sector reforms have increased credit allocation to the private sector to a small extent. On the other hand, it was observed from figure 4.30 that only **41.4 percent (53 respondents)** indicated that they believed the financial sector reforms have increased credit allocation to the private sector to a large extent in Kumasi Metropolis, Ghana.

CHAPTER FIVE: EFFECTS OF FINANCIAL SECTOR REFORMS ON ECONOMIC GROWTH OF GHANA.

5.1 Introduction

This chapter highlights the analysis and presentation of results of the effects of financial sector reforms on economic growth of Ghana.

The analysis of the effects of financial sector reforms on economic growth of Ghana proceeded this way:

5.2 Regression Diagnostics Tests for Multiple Linear Regression Assumptions

Figure 5.1 Assumptions of Multiple Linear Regression Analysis Technique

Source: Adapted from (bookmyphdeditor.com, 2021)

In analyzing data for this study, a multiple linear regression analysis technique was adequate and suitable to achieve the objective of the study. Hence, the researcher has utilized a multiple linear regression analysis technique to analyze the effects of financial sector reforms on economic growth. In this study, the application of multiple linear regression analysis proceeded this way: While using this analysis technique, the researcher performed regression diagnostic test multiple linear regression assumptions so that predictions could be accurately estimated (Makhija, 2019).

Before running regression, the researcher performed seven regression diagnostics tests for multiple linear regression assumptions in the course of analyzing data for this study to check whether the data passes and conformed with the main assumptions of multiple linear regression below. The testing for these assumptions was important in helping determine the best technique of data analysis to give a valid result.

5. 2.1 Sample Size Assumption:

To check and conform with the sample size assumption, the researcher has used a sample size132 greater than 40 (n>40).

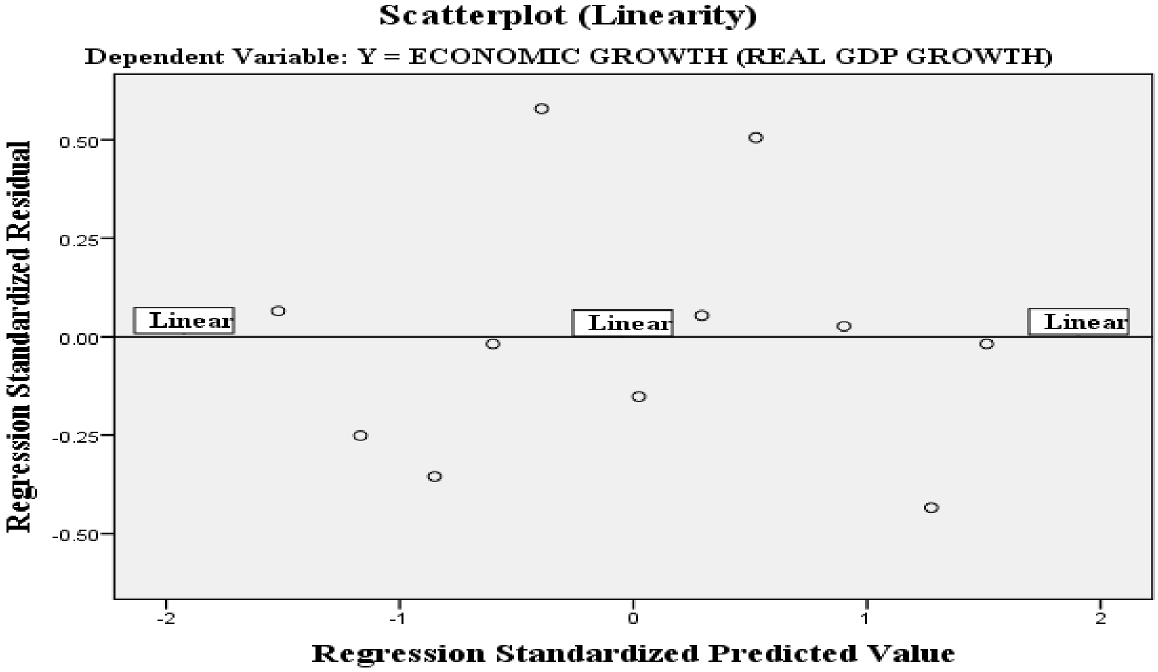
5.2.2 Variable Type Assumption:

To check and conform with the variable type assumption, the researcher has used economic growth (Real GDP growth) as dependent variable which is measured on a continuous scale (i.e. an interval or ratio variable), and independent variables which are measured on a continuous scale (i.e. an interval or ratio variable).

5.2.3 Linearity Assumption:

To check and conform with the linearity assumption, the researcher has used SPSS to generate a scatter-plot and fit a straight line through the scatter plot of data points to signify linear relationship between the variables.

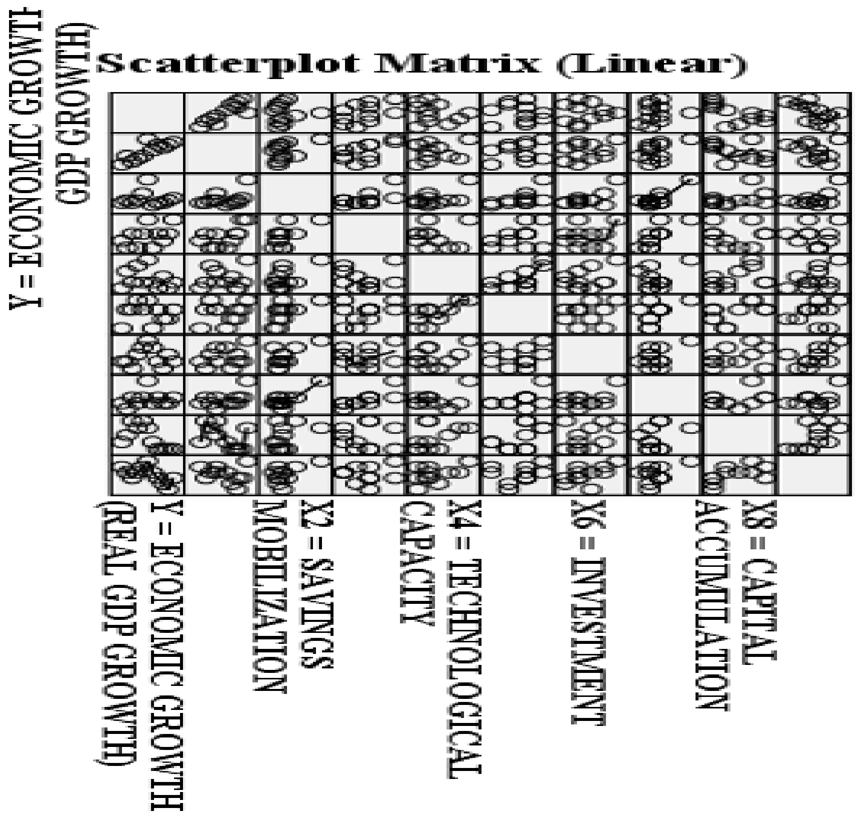
Figure 5.2 Scatterplot for checking Linearity Assumption



Source: (Field work, 2022).

Besides, SPSS was used to generate a scatterplot matrix

Figure 5.3 Scatterplot Matrix for checking Linearity Assumption



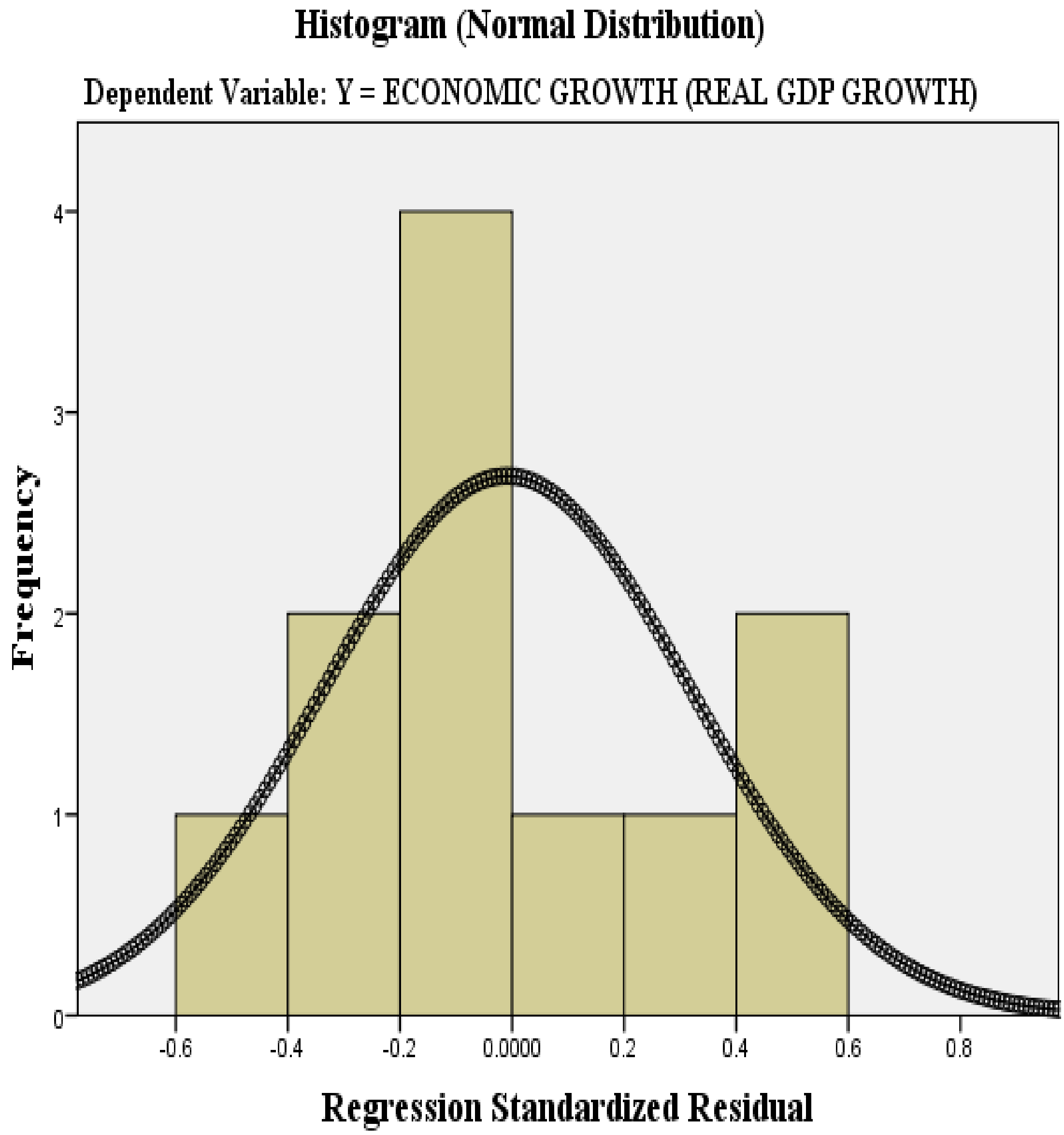
Source: (Field work, 2022).

It can be seen from figure 5.2 and figure 5.3 that the dots are randomly scattered.

5.2.4 Normality Assumption:

To check and conform with the normality assumption, the researcher has used SPSS to generate a histogram plot with a density curve that closely depicts the bell-shaped curve of normal distribution

Figure 5.4 Histogram for checking Normality Assumption

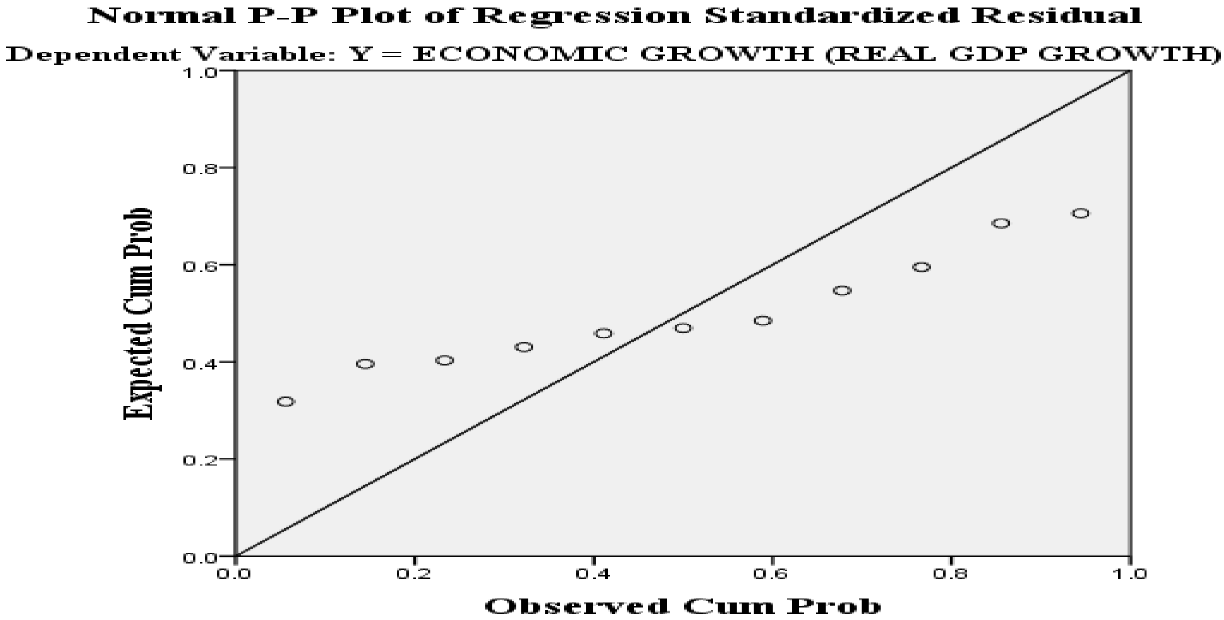


Source: (Field work, 2022).

It can be seen from figure 5.4 that the distribution is generally normal because it closely depicts the bell-shaped.

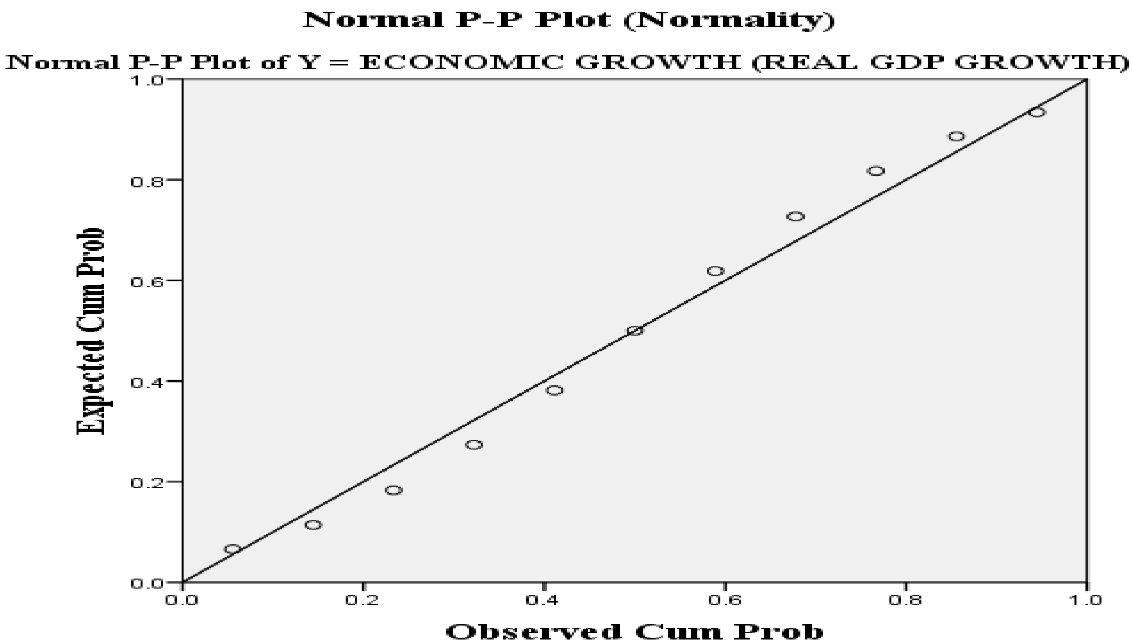
Besides, SPSS was used to generate a normal P-P Plot.

Figure 5.5 Normal P-P Plot for checking Normality Assumption



Source: (Field work, 2022).

Figure 5.6 Normal P-P Plot for checking Normality Assumption



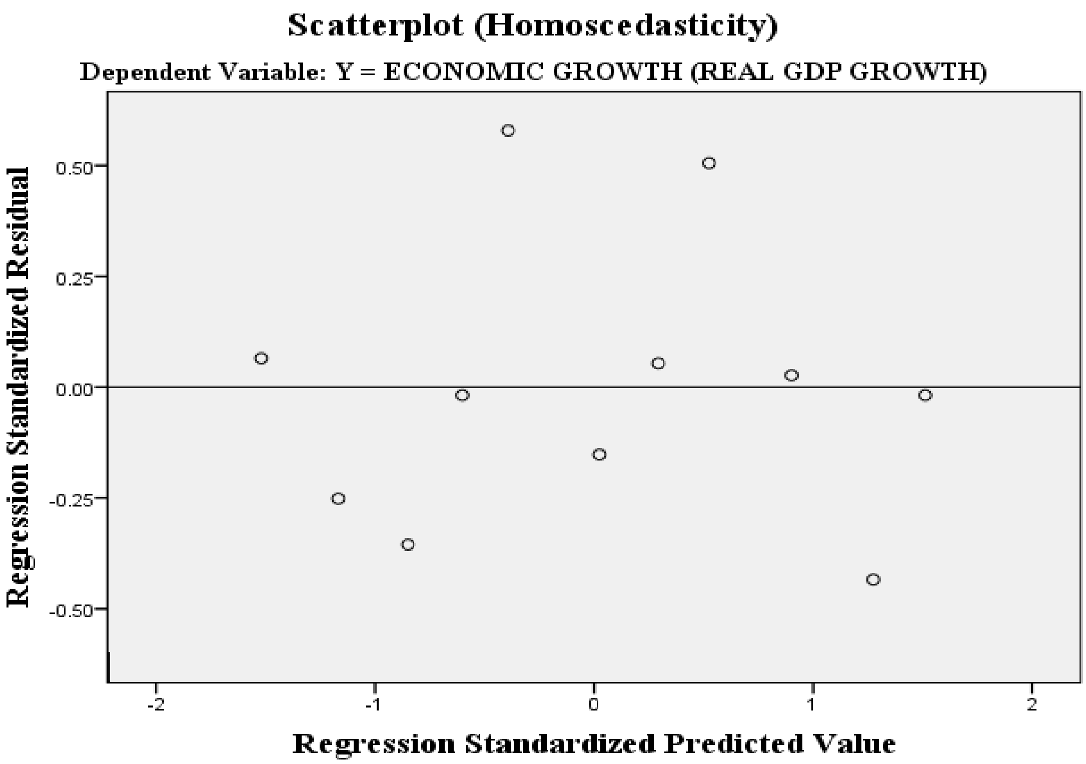
Source: (Field work, 2022).

It can be seen from figure 5.5 and figure 5.6 that the dots are moving to and generally following the diagonal.

5.2.5 Homoscedasticity Assumption:

To check and conform with the Homoscedasticity assumption, the researcher has used SPSS to generate a scatter-plot.

Figure 5.7 Scatterplot for checking Homoscedasticity Assumption



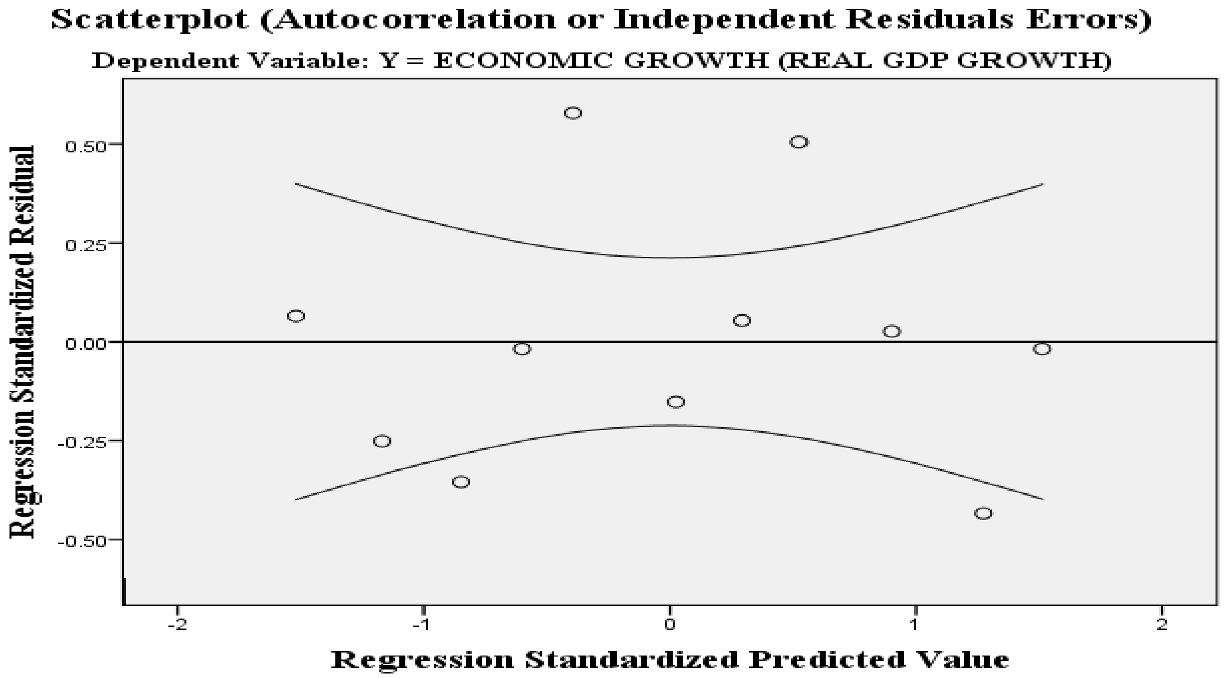
Source: (Field work, 2022).

It can be seen from figure 5.7 that there is constant error term pattern across the independent variables because dots are scattered. The homoscedasticity plot of data reveals some constant or uniform error term pattern (variance of dependent variable) across the independent variables.

5.2.6 Autocorrelation or Independent Residuals Errors Assumption:

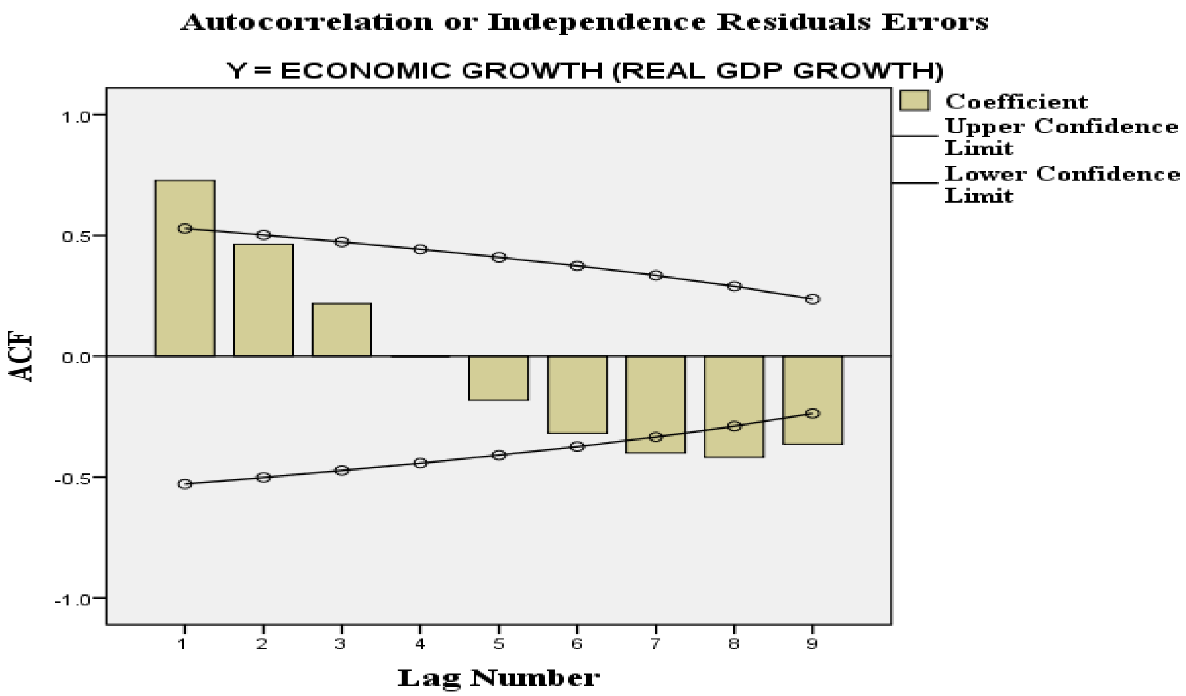
To check and conform with the autocorrelation or independent residuals errors assumption, the researcher has utilized SPSS to generate a scatter-plot.

Figure 5.8 Scatterplot for checking Autocorrelation or Independent Residuals Errors Assumption



Source: (Field work, 2022).

Figure 5.9 Scatterplot for checking Autocorrelation or Independent Residuals Errors Assumption



Source: (Field work, 2022).

It can be seen from figure 5.8 and figure 5.9 that there is no autocorrelation or independent residuals errors because the dots are scattered, separated from each other, and the independent variables do not depend on each other.

5.2.7 Absence of Multicollinearity Assumption:

To check and conform with the multicollinearity assumption, the investigator has used SPSS to generate Variance Inflation Factor (VIF), and Tolerance. The variance inflation factor (VIF) captures the impact of linear correlation among the regressors. VIF is related to the multiple correlation coefficient (R) such that the value of is found as follows: VIF=1/(1-R2). As a rule of thumb, a variable whose VIF value is greater than 10 may merit further investigation. As a general guide, a VIF greater than 10 is an indication of the severity of multicollinearity. The application of the VIF is to rule out the threat posed by the presence of multicollinearity to the fitted models to ensure that the regression produce the best and unbiased estimators.

Tolerance limit is reached at ninth independent variable, any additional independent variable produces biased estimators.

At the proposal stage and before the regression diagnostics tests using Variance Inflation Factor (VIF) and Tolerance, the following independent variables (X10 = Employment Rate and X11 = Foreign Exchange Rate) were included in the regression equation. However, in the actual study and after the regression diagnostics tests using Variance Inflation Factor (VIF) and Tolerance, the following independent variables (X10 = Employment Rate and X11 = Foreign Exchange Rate) were removed from the regression equation to avoid multicollinearity.

Table 5.1 Variance Inflation Factor (VIF), and Tolerance Check for Multicollinearity

Regression Diagnostic Test for Multicollinearity Assumption

Variable Code	Independent Variables	Collinearity Statistics	
		Tolerance	VIF
BCTPS	Bank Credit to Private Sector	1.000	1.000
SAVM	Savings Mobilization	0.798	1.253
FINC	Financial Inclusion	0.449	2.230
TECH	Technological Capacity Development	0.132	7.584
HUMD	Human Development	0.513	1.950
INVT	Investment	0.199	5.034
PRDG	Productivity Growth	0.261	3.836
INTR	Interest Rate Reduction	0.401	2.493
CAPAC	Capital Accumulation	0.180	5.558

Source: (Field work, 2021).

It can be seen from Table 5.1 that there is no multicollinearity in the independent variable because the Variance Inflation Factor (VIF) of each of the independent variables is lower than 10. VIF was < 10. This means the correlation between each of the independent variables and each of the other independent variables is low.

This space intentionally left blank

5.3 Summary Statistics of Dependent and Independent Variables

Table 5.2 Summary Statistics of Dependent and Independent Variables

Summary Statistics

VARIABLE CODE	VARIABLE	OBS.	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
RGDPG	Economic Growth	11	5.0000	3.31662	0.00	10.00
BCTPS	Bank Credit to Private Sector	11	11.6364	3.00908	7.00	16.00
SAVM	Savings Mobilization	11	11.6364	3.07482	9.00	20.00
FINC	Financial Inclusion	11	11.6364	1.43337	10.00	14.00
TECH	Technological Capacity Development	11	11.6364	1.96330	10.00	16.00
HUMD	Human Development	11	11.6364	1.56670	9.00	15.00
INVT	Investment	11	11.6364	2.15744	8.00	15.00
PRDG	Productivity Growth	11	11.6364	1.50151	9.00	14.00
INTR	Interest Rate Reduction	11	11.6364	1.12006	10.00	13.00
CAPAC	Capital Accumulation	11	11.6364	1.62928	10.00	14.00

Source: (Field work, 2021).

The descriptive statistics in Table 5.2 was measured on 11 observations.

It was observed from Table 5.2 that Economic growth had a maximum value of 10.00 and the minimum value of 0.00, its' mean value was 5.0000, and standard deviation was found to be 3.31662.

Bank credit to private sector had a maximum value of 16.00 and the minimum value of 7.00, its' mean was 11.6364, standard deviation was found to be 3.00908.

Savings mobilization had a maximum value of 20.00 and the minimum value of 9.00, its mean value was 11.6364, and standard deviation was found to be 3.07482. Financial inclusion had a maximum value of 14.00 and the minimum value of 10.00, its' mean value was 11.6364, and standard deviation was found to be 1.43337. Technological capacity development had a maximum value of 16.00 and the minimum value of 10.00, its' mean value was 11.6364, and standard deviation was found to be 1.96330.

Human development had a maximum value of 15.00 and the minimum value of 9.00, its' mean value was 11.6364, and standard deviation was found to be 1.56670. Investment had a maximum value of 15.00 and the minimum value of 8.00, its' mean value was 11.6364, and standard deviation was found to be 2.15744.

Productivity growth had a maximum value of 14.00 and the minimum value of 9.00, its' mean value was 11.6364, and standard deviation was found to be 1.50151. Interest rate reduction had a maximum value of 13.00 and the minimum value of 10.00, its' mean value was 11.6364, and standard deviation was found to be 1.12006.

Capital accumulation had a maximum value of 14.00 and the minimum value of 10.00, its' mean value was 11.6364, and standard deviation was found to be 1.62928.

This space intentionally left blank

5.4 Pearson Correlation Matrix

Table 5.3 Pearson Correlation Matrix

PEARSON CORRELATION MATRIX										
	BCTPS	**SAV**	**FINC**	**TECH**	**HUM**	**INVT**	**PRDG**	**INTR**	**CAPA**	**GDPG**
BCTPS	**1**									
Correlatn										
Sig. 2-tail										
SAVM		**1**								
Correlatn	**0.449**									
Sig. 2-tail	**0.166**									
FINC			**1**							
Correlatn	**0.615***	**0.648***								
Sig. 2-tail	**0.044**	**0.031**								
TECH				**1**						
Correlatn	**0.585**	**-0.173**	**0.517**							
Sig. 2-tail	**0.059**	**0.611**	**0.104**							
HUMD					**1**					
Correlatn	**0.584**	**0.406**	**0.559**	**0.473**						
Sig. 2-tail	**0.059**	**0.216**	**0.074**	**0.142**						
INVT						**1**				
Correlatn	**0.809****	**0.084**	**0.438**	**0.745****	**0.430**					
Sig. 2-tail	**0.003**	**0.807**	**0.178**	**0.009**	**0.186**					
PRDG							**1**			
Correlatn	**0.720***	**0.380**	**0.676***	**0.629***	**0.661***	**0.511**				
Sig. 2-tail	**0.012**	**0.249**	**0.022**	**0.038**	**0.027**	**0.108**				
INTR								**1**		
Correlatn	**0.610***	**-0.042**	**0.283**	**0.571**	**0.430**	**0.685***	**0.330**			
Sig. 2-tail	**0.046**	**0.902**	**0.399**	**0.067**	**0.187**	**0.020**	**0.322**			
CAPAC									**1**	
Correlatn	**-0.478**	**0.410**	**-0.019**	**-0.639***	**-0.018**	**-0.553**	**-0.386**	**-0.408**		
Sig. 2-tail	**0.137**	**0.210**	**0.955**	**0.034**	**0.959**	**0.077**	**0.240**	**0.212**		
RGDPG										**1**
Correlatn	**0.832****	**0.029**	**0.463**	**0.845****	**0.539**	**0.936****	**0.723***	**0.700***	**0.629***	
Sig. 2-tail	**0.002**	**0.032**	**0.025**	**0.001**	**0.037**	**0.000**	**0.012**	**0.016**	**0.038**	

*__Correlation is significant at the 0.05 level (2-tailed).__

**** Correlation is significant at the 0.01 level (2-tailed).**

Area of concern requiring interpretation.

Source: (Field work, 2021).

It was observed from Table 5.3 that the correlation coefficient of bank credit to private sector (BCTPS) with economic growth (RGDPG) was 0.832**, which indicates that there is a strong positive relationship exists between the two variables. The p-value was 0.002 which was less than 0.01, indicating that the correlation value is significant at 99% confidence level (2-tailed). The direction of the correlation was positive, which indicates that if one variable changes, the other variable changes in the same direction. It was observed from Table 5.3 that the correlation coefficient of savings mobilization (SAVM) with economic growth (RGDPG) was 0.029, which indicates that there is a moderate positive relationship exists between the two variables. The p-value was 0.032 which was less than 0.05, indicating that the correlation value is significant at 95% confidence level. The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction.

It was observed from Table 5.3 that the correlation coefficient of financial inclusion (FINC) with economic growth (RGDPG) was 0.463, which indicates that there is a moderate positive relationship exists between the two variables. The p-value was 0.025 which was less than 0.05, indicating that the correlation value is substantial at 95% confidence level. The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction.

It was observed from Table 5.3 that the correlation coefficient of technological capacity development (TECH) with economic growth (RGDPG) was 0.845**, which indicates that there is a strong positive relationship exists between the two variables. The p-value was 0.001 which was less than 0.01, indicating that the correlation value is significant at 99% confidence level (2-tailed). The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction. It was observed from Table 5.3 that the correlation coefficient of human development

(HUMD) with economic growth (RGDPG) was 0.539, which indicates that there is a substantial positive relationship exists between the two variables. The p-value was 0.087 which was greater than 0.05, indicating that the correlation value is insignificant at 95% confidence level. The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction. It was observed from Table 5.3 that the correlation coefficient of investment (INVT) with economic growth (RGDPG) was 0.936**, which indicates that there is a strong positive relationship exists between the two variables. The p-value was 0.000 which was less than 0.01, indicating that the correlation value is significant at 99% confidence level (2-tailed). The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction. It was observed from Table 5.3 that the correlation coefficient of productivity growth (PRDG) with economic growth (RGDPG) was 0.723*, which indicates that there is a strong positive relationship exists between the two variables. The p-value was 0.012 which was less than 0.05, indicating that the correlation value is significant at 95% confidence level (2-tailed). The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction. It was observed from Table 5.3 that the correlation coefficient of interest rate reduction (INTR) with economic growth (RGDPG) was 0.700*, which indicates that there is a strong positive relationship exists between the two variables. The p-value was 0.016 which was less than 0.05, indicating that the correlation value is significant at 95% confidence level (2-tailed). The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction. It was observed from Table 5.3 that the correlation coefficient of capital accumulation (CAPAC) with economic growth (RGDPG) was 0.629*, which indicates that there is a strong positive relationship exists between the two variables. The p-value was 0.038 which was less than 0.05, indicating that the correlation value is significant at 95% confidence level (2-tailed). The direction of the correlation was positive, which shows that if one variable changes, the other variable changes in the same direction.

5.5 ANOVA Results and Hypothesis Testing for Significance of Independent Variables

Table 5.4 ANOVA Results for Hypothesis Testing for Significance of Independent Variables

ANOVA Results for Hypothesis Testing for Significance of Independent Variables

Independent Variable	Statistically Significant	P-value
Bank Credit to Private Sector (BCTPS)	Significant	0.002
Savings Mobilization (SAVM)	Significant	0.001
Financial Inclusion (FINC)	Significant	0.002
Technological Capacity Development (TECH)	Significant	0.002
Human Development (HUMD)	Significant	0.009
Investment (INVT)	Significant	0.010
Productivity Growth (PRDG)	Significant	0.003
Interest Rate Reduction (INTR)	Significant	0.016
Capital Accumulation (CAPAC)	Significant	0.002

Source: (Field work, 2022).

5.5.1 Test of Significance of Bank Credit to Private Sector (X1 = 0.002 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through bank credit to private sector at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of bank credit to private sector **(0.002)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that bank credit to private sector has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous studies conducted by World Bank (2020); Khalid & Nadeem (2017); Levine (1997); Akinwale (2018) Shaw (1973); McKinnon (1973) who discovered some proof of a positive and significant relationship between bank credit to private sector and economic growth.

5.5.2 Test of Significance of Savings Mobilization (X2 = 0.001 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through savings mobilization at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of savings mobilization **(0.001)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that savings mobilization has a positive and significant relationship with economic growth at p-value < 0.05 significance level.

This result is consistent with previous studies conducted by Oduro-Asamoah (2015); Levine (2004); Mwangonda et al. (2018) who discovered some proof of a positive and significant relationship between savings mobilization and economic growth.

5.5.3 Test of Significance of Financial Inclusion (X3 = 0.002 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through financial inclusion at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of financial inclusion **(0.002)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that financial inclusion has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous studies conducted by Hannig & Jansen (2010); Beck et al. (2015); Demirgüç-Kunt et al. (2015); Triki & Faye (2013); Agyekum (2017); Sarma & Pais (2011) who discovered some proof of a positive significant relationship between financial inclusion and economic growth.

5.5.4 Test of Significance of Technological Capacity Development (X4 = 0.002 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through technological capacity development at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of technological capacity development **(0.002)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that technological capacity development has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous studies conducted by Schumpeter (1911); Schumpeter (1934); Levine (1997); Usman (2011) who discovered some proof of a positive and significant relationship between technological capacity development and economic growth.

5.5.5 Test of Significance of Human Development (X5 = 0.009 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through human development at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of human development **(0.009)** was less than 0.05 significance level, the null hypothesis is rejected. At the same time, the alternative hypothesis was accepted and it was concluded that human development has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous study conducted by Tsikata (2007) who discovered some proof of a positive and significant relationship between human development and economic growth.

5.5.6 Test of Significance of Investment (X6 = 0.010 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through investment at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of investment **(0.010)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that investment has a positive and significant relationship with economic growth at p-value < 0.05 significance level.

This result is consistent with previous studies conducted by Kiani & Ali (2019); Fry (1988); Kargbo & Adamu (2010); Fowowe (2011); who discovered some proof of a positive and significant relationship between investment and economic growth.

5.5.7 Test of Significance of Productivity Growth (X7 = 0.003 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through productivity growth at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of productivity growth **(0.003)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that productivity growth has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous studies conducted by Beck, Levine & Loayza (2000); Ang & McKinbbin (2007) who discovered some proof of a positive and significant relationship between productivity growth and economic growth.

5.5.8 Test of Significance of Interest Rate Reduction (X8 = 0.016 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through interest rate reduction at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of interest rate reduction **(0.016)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that interest rate reduction has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous studies conducted by Fry (1988); Kiani & Ali (2019); Ishioro (2017); Ojong et al (2014) who discovered some proof of a positive and significant relationship between interest rate reduction and economic growth.

5.5.9 Test of Significance of Capital Accumulation (X9 = 0.002 < 0.05).

H0: Financial sector reforms have no positive and significant effects on economic growth through capital accumulation at p-value < 0.05 significance level.

Decision Rule: Since the ANOVA p-value of capital accumulation **(0.002)** was less than 0.05 significance level, the null hypothesis was rejected. At the same time, the alternative hypothesis was accepted and it was concluded that capital accumulation has a positive and significant relationship with economic growth at p-value < 0.05 significance level. This result is consistent with previous studies conducted by Beck, Levine & Loayza (2000); Badeeb & Lean (2017); Shaw (1973); McKinnon (1973); Shaw (1973); Levine (1997); (Osundina & Osundina (2014); Usman (2011) Asamoah (2008); Ang & McKinbbin (2007); Jia (2006) who discovered some proof of a positive and significant relationship between capital accumulation and economic growth.

Table 5.5 Summary of Accepted/Rejected Hypothesis

Summary of Accepted/Rejected Hypothesis

Alternative Hypothesis	Statement	ANOVA Results: Significant P-value	Decision: Conclusion
Ha1	Financial sector reforms have positive and significant effects on economic growth through bank credit to private sector (X1) at p-value < 0.05.	**0.002 < 0.05 Significant**	Accepted
Ha2	Financial sector reforms have positive and significant effects on economic growth through savings mobilization (X2) at p-value < 0.05.	**0.001 < 0.05 Significant**	Accepted
Ha3	Financial sector reforms have positive and significant effects on economic growth through financial inclusion (X3) at p-value < 0.05.	**0.002 < 0.05 Significant**	Accepted
Ha4	Financial sector reforms have positive and significant effects on economic growth through technological capacity development (X4) at p-value < 0.05.	**0.002 < 0.05 Significant**	Accepted
Ha5	Financial sector reforms have positive and significant effects on economic growth through human development (X5) at p-value < 0.05.	**0.009 < 0.05 Significant**	Accepted
Ha6	Financial sector reforms have positive and significant effects on economic growth through investment (X6) at p-value < 0.05.	**0.010 < 0.05 Significant**	Accepted
Ha7	Financial sector reforms have positive and significant effects on economic growth through productivity growth (X7) at p-value < 0.05.	**0.003 < 0.05 Significant**	Accepted
Ha8	Financial sector reforms have positive and significant effects on economic growth through interest rate reduction (X8) at p-value < 0.05.	**0.016 < 0.05 Significant**	Accepted
Ha9	Financial sector reforms have positive significant effects on economic growth through capital accumulation (X9) at p-value < 0.05.	**0.002 < 0.05 Significant**	Accepted

Total number of Hypotheses Tested: 9

Total number of Hypotheses Accepted: 9

Total number of Hypotheses Rejected: 0

Source: (Field work, 2022).

5.6 Multiple Linear Regression Model Summary

Table 5.6 Multiple Linear Regression Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	Df1	df2	Sig. F Change
1	0.832[a]	0.692	0.657	1.94127	0.692	20.189	1	9	0.002
2	0.916[b]	0.840	0.800	1.48368	0.148	7.408	1	8	0.026
3	0.931[c]	0.867	0.810	1.44385	0.027	1.447	1	7	0.268
4	0.958[d]	0.918	0.863	1.22703	0.051	3.693	1	6	0.103
5	0.958[e]	0.919	0.837	1.33896	0.001	0.039	1	5	0.852
6	0.979[f]	0.958	0.895	1.07279	0.040	3.789	1	4	0.123
7	0.996[g]	0.993	0.976	0.50958	0.035	14.728	1	3	0.031
8	0.998[h]	0.996	0.979	0.47683	0.003	1.426	1	2	0.355
9	1.000[i]	1.000	1.000	0.00983	0.004	4709.453	1	1	0.009

Source: (Field work, 2021).

5.6.1 Interpretation of the Multiple Linear Regression Model Summary

It was observed from Table 5.6 that the **R** value of bank credit to private sector was 0.832 (Row 1 in "R" Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of bank credit to private sector was 0.692 (Row 1 in "R Square" Column), which indicates that 69.2% of the variation (variance) in economic growth can be explained or caused by the bank credit to private sector, which is very large.

It was observed from Table 5.6 that the **R** value of savings mobilization was 0.916 (Row 2 in "R" Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of savings mobilization was 0.840 (Row 2 in "R Square" Column), which indicates that 84% of the variation (variance) in economic growth can be explained or caused by the savings mobilization, which is very large.

It was observed from Table 5.6 that the **R** value of financial inclusion was 0.931 (Row 3 in "R" Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of financial inclusion was 0.867 (Row 3 in "R Square" Column), which indicates that 86.7% of the variation (variance) in economic growth can be explained or caused by the financial inclusion, which is very large.

It was observed from Table 5.6 that the **R** value of technological capacity was 0.958 (Row 4 in "R" Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of technological capacity was 0.918 (Row 4 in "R Square" Column), which indicates that 91.8% of the variation (variance) in economic growth can be explained or caused by the technological capacity, which is very large.

It was observed from Table 5.6 that the **R** value of human development was 0.958 (Row 5 in “R” Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of human development was 0.919 (Row 5 in “R Square” Column), which indicates that 91.9% of the variation (variance) in economic growth can be explained or caused by the human development, which is very large.

It was observed from Table 5.6 that the **R** value of investment was 0.979 (Row 6 in “R” Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of investment was 0.958 (Row 6 in “R Square” Column), which indicates that 95.8% of the variation (variance) in economic growth can be explained or caused by the investment, which is very large.

It was observed from Table 5.6 that the **R** value of productivity growth was 0.996 (Row 7 in “R” Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of productivity growth was 0.993 (Row 7 in “R Square” Column), which indicates that 99.3% of the variation (variance) in economic growth can be explained or caused by the productivity growth, which is very large.

It was observed from Table 5.6 that the **R** value of interest rate reduction was 0.998 (Row 8 in “R” Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a high degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of interest rate reduction was 0.996 (Row 8 in “R Square” Column), which indicates that 99.6% of the variation (variance) in economic growth can be explained or caused by the interest rate reduction, which is very large.

It was observed from Table 5.6 that the **R** value of capital accumulation was 1.000 (Row 9 in “R” Column), which indicates that there is a strong relationship exists between the two variables. It also indicates a highest degree of correlation between the two variables.

It was observed from Table 5.6 that the **R2** value of capital accumulation was 1.000 (Row 9 in “R Square” Column), which indicates that 100% of the variation (variance) in economic growth can be explained or caused by the capital accumulation, which is the largest.

This space intentionally left blank

Table 5.7 Interpretation of Multiple Linear Regress Model Summary

Interpretation of Multiple Linear Regression Model Summary

Variable	R	Interpretation	R2	Interpretation
BCTPS	**0.832**	Strong Positive Relationship; High Degree of Correlation.	**0.692**	**This indicates that 69.2% of the variation (variance) in economic growth can be explained or caused by the bank credit to private sector, which is very large.**
SAVM	**0.916**	Strong Positive Relationship; High Degree of Correlation.	**0.840**	**This indicates that 84% of the variation (variance) in economic growth can be explained or caused by the savings mobilization, which is very large.**
FINC	**0.931**	Strong Positive Relationship; High Degree of Correlation.	**0.867**	**This indicates that 86.7% of the variation (variance) in economic growth can be explained or caused by the financial inclusion, which is very large.**
TECH	**0.958**	Strong Positive Relationship; High Degree of Correlation.	**0.918**	**This indicates that 91.8% of the variation (variance) in economic growth can be explained or caused by the technological capacity, which is very large.**
HUMD	**0.958**	Strong Positive Relationship; High Degree of Correlation.	**0.919**	**This indicates that 91.9% of the variation (variance) in economic growth can be explained or caused by the human development, which is very large.**
INVT	**0.979**	Strong Positive Relationship; High Degree of Correlation.	**0.958**	**This indicates that 95.8% of the variation (variance) in economic growth can be explained or caused by the investment, which is very large.**
PRDG	**0.996**	Strong Positive Relationship; High Degree of Correlation.	**0.993**	**This indicates that 99.3% of the variation (variance) in economic growth can be explained or caused by the productivity growth, which is very large.**
INTR	**0.998**	Strong Positive Relationship; High Degree of Correlation.	**0.996**	**This indicates that 99.6% of the variation (variance) in economic growth can be explained or caused by the interest rate reduction, which is very large.**
CAPAC	**1.000**	Very Strong Positive Relationship; Highest Degree of Correlation.	**1.000**	**This indicates that 100% of the variation (variance) in economic growth can be explained or caused by the capital accumulation, which is the largest.**

Source: (Field work, 2022).

5.7 Regression Coefficients

Table 5.8 Regression Coefficients Table

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-5.667	2.445		-2.318	0.046
X1 = BCTPS	0.917	0.204	0.832	4.493	0.002
2 (Constant)	-2.740	2.156		-1.271	0.240
X2 = SAVM	0.465	0.171	-0.431	-2.722	0.026
3 (Constant)	-6.665	3.879		-1.718	0.129
X3 = FINC	0.572	0.476	0.247	1.203	0.268
4 (Constant)	-8.608	3.448		-2.496	0.047
X4 = TECH	1.046	0.544	0.619	1.922	0.103
5 (Constant)	-8.916	4.075		-2.188	0.080
X5 = HUMD	0.074	0.377	0.035	0.197	0.852
6 (Constant)	-12.035	3.637		-3.309	0.030
X6 = INVT	0.687	0.353	0.447	1.947	0.123
7 (Constant)	-15.234	1.918		-7.942	0.004
X7 = PRDG	0.807	0.210	0.365	3.838	0.031
8 (Constant)	-17.411	2.558		-6.806	0.021
X8 = INTR	0.254	0.213	0.086	1.194	0.355
9 (Constant)	-20.387	0.068		-298.680	0.002
X9 = CAPAC	0.309	0.004	0.152	68.625	0.009

Source: (Field work, 2021).

5.7.1 Interpretation of the Multiple Linear Regression Coefficients Table

The regression coefficients describe the statistical and mathematical relationship between each independent variable and the dependent variable (economic growth), and provides the necessary information to predict the dependent variable (economic growth) from the independent variables, as well as determine whether each of the independent variables contribute statistically significantly to the model.

It was observed from Table 5.8 that the unstandardized coefficient value of bank credit to private sector was 0.917 (X1 = BCTPS Row 1 in Unstandardized Coefficients "B" Column). It indicates that a 1 unit increase in bank credit to private sector will increase the value of economic growth by 0.917 units, and the Y intercept (reported as a constant of -5.667).

It was observed from Table 5.8 that the unstandardized coefficient value of savings mobilization was 0.465 (X2 = SAVM Row 2 in Unstandardized Coefficients "B" Column). It indicates that a 1 unit increase in savings mobilization will increase the value of economic growth by 0.465 units, and the Y intercept (reported as a constant of -2.740).

It was observed from Table 5.8 that the unstandardized coefficient value of financial inclusion was 0.572 (X3 = FINC Row 3 in Unstandardized Coefficients "B" Column). It indicates that a 1 unit increase in financial inclusion will increase the value of economic growth by 0.572 units, and the Y intercept (reported as a constant of -6.665).

It was observed from Table 5.8 that the unstandardized coefficient value of technological capacity was 1.046 (X4 = TECH Row 4 in Unstandardized Coefficients "B" Column). It indicates that a 1 unit increase in technological capacity development will increase the value of economic growth by 1.046 units, and the Y intercept (reported as a constant of -8.608).

It was observed from Table 5.8 that the unstandardized coefficient value of human development was 0.074 (X5 = HUMD Row 5 in Unstandardized Coefficients “B” Column). It indicates that a 1 unit increase in human development will increase the value of economic growth by 0.074 units, and the Y intercept (reported as a constant of -8.916).

It was observed from Table 5.8 that the unstandardized coefficient value of investment was 0.687 (X6 = INVT Row 6 in Unstandardized Coefficients “B” Column). It indicates that a 1 unit increase in investment will increase the value of economic growth by 0.687 units, and the Y intercept (reported as a constant of -12.035).

It was observed from Table 5.8 that the unstandardized coefficient value of productivity growth was 0.807 (X7 = PRDG Row 7 in Unstandardized Coefficients “B” Column). It indicates that a 1 unit increase in productivity growth will increase the value of economic growth by 0.807 units, and the Y intercept (reported as a constant of-15.234).

It was observed from Table 5.8 that the unstandardized coefficient value of interest rate reduction is 0.254 (X8 = INTR Row 8 in Unstandardized Coefficients “B” Column). It indicates that a 1 unit increase in interest rate reduction will increase the value of economic growth by 0.254 units, and the Y intercept (reported as a constant of -17.411).

It was observed from Table 5.8 that the unstandardized coefficient value of capital accumulation was 0.309 (X9 = CAPAC Row 9 in Unstandardized Coefficients “B” Column). It indicates that a 1 unit increase in capital accumulation will increase the value of economic growth by 0.309 units, and the Y intercept (reported as a constant of -20.387).

The unstandardized slopes ("B") indicate that the economic growth increases more with technological capacity (1.046).

The standardized partial slopes (beta-weights (Beta) suggest that bank credit to private sector (0.832) has the greatest influence on economic growth, followed by technological capacity (0.619), followed by investment (0.447), followed by savings mobilization (0.431), followed by productivity growth (0.365), followed by financial inclusion (0.247), followed by capital accumulation (0.152), then, interest rate (0.086), and then, human development (0.035) which has the least influence on economic growth.

The above variables have a direct and positive effect on economic growth.

The new fitted regression model from the study findings is presented as follows:

Y = -5.667+0.917(X1) -2.740+0.465(X2) -6.665+0.572(X3) -8.608+1.046(X4) -8.916+0.074(X5) -12.035+0.687(X6) -15.234+0.807(X7) -17.411+0.254(X8) -20.387+0.309(X9).

This space intentionally left blank

Table 5.9 Interpretation of Multiple Linear Regression Coefficient Table

Interpretation of Multiple Linear Regression Coefficient Table

Variable	B	Interpretation	BETA	Interpretation
BCTPS	0.917	This indicates that a 1 unit increase in bank credit to private sector will increase the value of economic growth by 0.917 units.	0.832	This suggests that **BCTPS** has the **Greatest** influence on economic growth.
SAVM	0.465	This indicates that a 1 unit increase in savings mobilization will increase the value of economic growth by 0.465 units.	0.431	This suggests that **SAVM** has the **4TH** greatest influence on economic growth.
FINC	0.572	This indicates that a 1 unit increase in financial inclusion will increase the value of economic growth by 0.572 units.	0.247	This suggests that **FINC** has the **6TH** greatest influence on economic growth.
TECH	1.046	This indicates that a 1 unit increase in technological capacity will increase the value of economic growth by 1.046 units.	0.619	This suggests that **TECH** has the **2ND** greatest influence on economic growth.
HUMD	0.074	This indicates that a 1 unit increase in human development will increase the value of economic growth by 0.074 units.	0.035	This suggests that **HUMD** has the **Least** influence on economic growth.
INVT	0.687	This indicates that a 1 unit increase in investment will increase the value of economic growth by 0.687 units.	0.447	This suggests that **INVT** has the **3RD** greatest influence on economic growth.
PRDG	0.807	This indicates that a 1 unit increase in productivity growth will increase the value of economic growth by 0.807 units.	0.365	This suggests that **PRDG** has the **5TH** greatest influence on economic growth.
INTR	0.254	This indicates that a 1 unit increase in interest rate will increase the value of economic growth by 0.254 units.	0.086	This suggests that **INTR** has the **8TH** greatest influence on economic growth.
CAPAC	0.309	This indicates that a 1 unit increase in capital accumulation will increase the value of economic growth by 0.309 units.	0.152	This suggests that **CAPAC** has the **7TH** greatest influence on economic growth.

Source: (Field work, 2022).

Before communicating or reporting the results, it is necessary to compare the a priori expectations concerning the signs of the coefficient estimates. In line with a priori expectation, the study finds financial sector reforms variables to be positive and statistically significant in explaining effects of financial sector reforms on economic growth. This implies that these results accord with a priori expectations in terms of the signs and statistical significance of the estimates. First and foremost, economic growth increases with financial sector reforms at an increasing rate. Furthermore, all the independent variables are positive in sign (as expected). Finally, the positively signed (and statistically significant) coefficient of the interaction between financial sector reforms and economic growth indicates a direct and positive effect on economic growth.

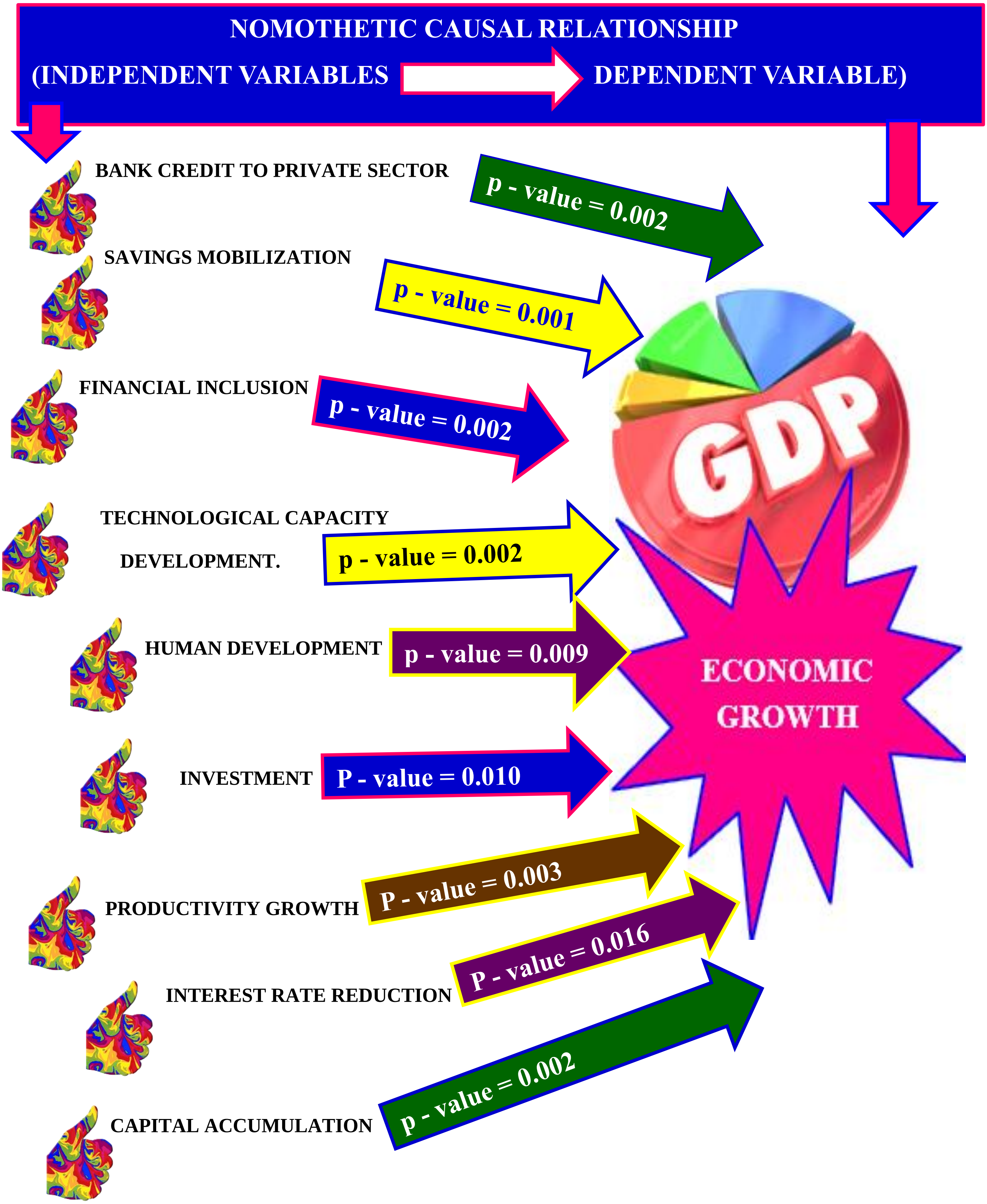
Table 5.10 Statistically Significant and Sign of Coefficient of Independent Variables

Statistically Significant and Sign of Coefficient of Variables In line with A Priori Expectations

Independent Variable	Statistically Significant	Sign of Coefficient
Bank Credit to Private Sector (BCTPS)	Significant	Positive
Savings Mobilization (SAVM)	Significant	Positive
Financial Inclusion (FINC)	Significant	Positive
Technological Capacity Development (TECH)	Significant	Positive
Human Development (HUMD)	Significant	Positive
Investment (INVT)	Significant	Positive
Productivity Growth (PRDG)	Significant	Positive
Interest Rate Reduction (INTR)	Significant	Positive
Capital Accumulation (CAPAC)	Significant	Positive

Source: (Field work, 2022).

Figure 5.10 Nomothetic Causal Relationship



Source: (Field work, 2022).

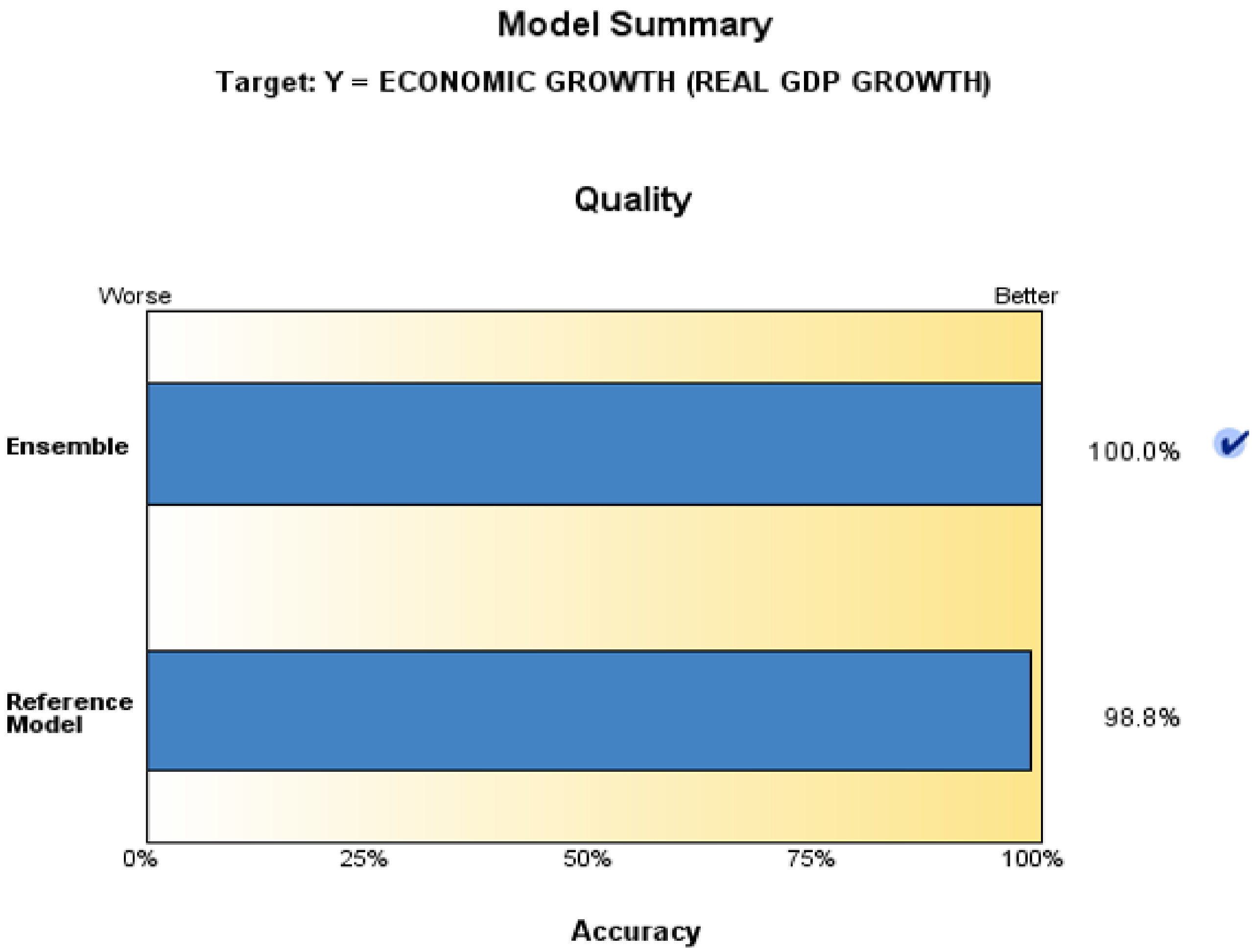
5.8 Reliability and Validity of the Study

Reliability and Validity checks were performed throughout the study.

5.8.1 Internal and External Validity

The validity of this study was not compromised for any reason. Efforts were made to achieve high internal and external validity vigorously. Validity checks were done throughout the study. In terms of internal validity, the instruments measured what it was intended to measure. Internal validity was checked using automatic linear modeling technique. The study achieved 100 percent accuracy as observed from figure 5.11

Figure 5.11 Automatic Linear Modeling



Source: (Field work, 2022).

The survey results were true reflection of the reality and actual situation on the ground. In terms of external validity, the results of the study were compared to the results of the previous studies. In other words, the results of the study are consistent with much of the literature. Therefore, the study achieved both internal and external validity.

5.8.2 Reliability of the Regression Model

Cronbach alpha coefficient was used to test for internal consistency. The alpha reliability was in the acceptable range, well above the 0.70 threshold or cut-off. Per Creswell (2009), a reliability statistics score of 0.70 or higher is considered acceptable in order to use an instrument in most social science research situations. The alpha coefficient for the 10 items in the regression model is 0.75, suggesting that the items in the regression model have achieved high internal consistency as observed from Table 5.11.

Table 5.11 Reliability Statistics of Regression Model

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.756	0.819	10

Source: (Field work, 2022).

5.8.3 Reliability of the Survey

The researcher strived to ensure the study archives acceptable reliability. Before the last questionnaires were distributed, a pilot test of 16 questionnaires was distributed among employees at different levels. The questionnaires were administered twice to different groups of respondents and the findings confirm similar results. The alpha coefficient for the 16 items in the pilot study is 0.73 as observed from Table 5.12.

Table 5.12 Pilot Study Reliability Statistics

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.738	0.812	16

Source: (Field work, 2022).

The alpha reliability of the actual survey was in the acceptable range, well above the 0.70 threshold or cut-off. Per Creswell (2009), a reliability statistics score of 0.70 or higher is considered acceptable in order to use an instrument in most social science research situations. The alpha coefficient for the 29 items in the actual survey is 0.77, suggesting that the items in the actual survey have achieved high internal consistency as observed from Table 5.13.

Table 5.13 Actual Survey Reliability Statistics

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.775	0.828	29

Source: (Field work, 2022).

CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This final chapter presents the summary of major findings of the current study with respect to the objectives of the study and the corresponding research questions. Besides, it highlights the conclusions distilled from the summaries and recommendations flowing from conclusions. The chapter concludes with areas for further research.

6.2 Summary of Findings

This study was set out to analyse the effects of third generation financial sector reforms in the banking industry on economic growth to produce new knowledge for improving economic growth of Ghana. In order to achieve this, the study accomplished two specific objectives and answered two research questions.

Summary of Findings for Specific Objective 1

The first specific objective of this study was to describe the state of third generation financial sector reforms and economic growth of Ghana. Hence, the corresponding research question was as follows: What is the state of third generation financial sector reforms and economic growth in Ghana?

The third generation financial sector reforms in Ghana were policy measures aggregated into six main components: digitization of financial services, recapitalization and restructuring of distressed banks; corporate governance directives; sustainable banking principles; prudential regulation and supervision; and financial inclusion. There has been much progress in digital financial services in the banking industry which manifest a high level of technological sophistication and these have a multiplier effect on economic growth. As a result. confidence in the banking industry has been restored.

However, the collapse of several banks, and revocation if licenses of savings and loans companies, micro finance institutions and finance houses has created a riskier environment which means that investors will demand risk premium, thus sustaining the high level of interest rates that has interfered with pricing of risk.

The economic growth of Ghana which was on a declining trend has been restored, and the Ghana has seen a significant accelerated growth in the economy since the implementation of third generation financial sector reforms 2017-2019. Ghana's economic outlook appeared good and impressive over the study period. The economy was in good shape on high GDP growth. The economy showed resilience, and the positive growth trajectory was set to continue. Ghana's macroeconomic stance was impressive. All the macroeconomic indicators were impressive over the study period (2017-2019), but the current macroeconomic situation is not good as it was before the Covid-19 Pandemic.

Summary of Findings for Specific Objective 2

The second specific objective of this study was to analyse the effects of financial sector reforms on economic growth of Ghana. Hence, the corresponding research question was as follows: What are the effects of financial sector reforms on economic growth of Ghana?

The overall effects of financial sector reforms on economic growth is reflected in increase economic growth. Financial sector reforms have growth-stimulating effect on Ghana. Financial sector reforms have significant effects on economic growth. The relationship between financial sector reforms variables and economic growth is linear. Financial sector reforms have positive effects on economic growth of Ghana. Regression results indicate that financial sector reforms have positive and significant effect economic growth through bank credit to private sector; savings mobilization;

financial inclusion; technological capacity development; investment; human development; productivity growth; interest rate reduction and capital accumulation depending on the stability of the macroeconomic conditions (such as inflation rate) preceding the implementation of the financial sector reforms. These results confirmed the hypothesis and they accord with the a priori expectations in terms of the signs and statistical significance of the estimates.

6.3 Conclusions

Based on an in-depth analysis consistent with peer-reviewed literature, this study finds that the commitment of the Ghanaian government and the Bank of Ghana to a comprehensive third generation financial sector reforms have begun to bear fruits and yielding positive useful results. The findings also indicate that the third generation financial sector reforms have accelerated economic growth of Ghana through digital transformation of the banking industry with digitized financial services which manifest a high level of technological sophistication and these have restored confidence in the banking industry. The study also finds that, in line with a priori expectations, regression results indicate that bank credit to private sector has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level; savings mobilization has a positive and significant effect on economic growth with a p-value of 0.001 at 0.05 significance level; financial inclusion has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level; technological capacity development has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level; human development has a positive and significant effect on economic growth with a p-value of 0.009 at 0.05 significance level; investment has a positive and significant effect on economic growth with a p-value of

0.010 at 0.05 significance level; productivity growth has a positive and significant effect on economic growth with a p-value of 0.003 at 0.05 significance level; interest rate reduction has a positive and significant effect on economic growth with a p-value of 0.016 at 0.05 significance level; and capital accumulation has a positive and significant effect on economic growth with a p-value of 0.002 at 0.05 significance level. This implies that the effects of financial sector reforms translate to increase Ghana's economic growth through technological capacity development; bank credit to private sector; financial inclusion; savings mobilization; productivity growth; investment; human development; capital accumulation and interest rate reduction, and their relationship is direct and linear. This study also shows that although Ghana has chalked some significant success in financial sector reforms, some major impediments still remain, and a lot more remained to be done to deepen and broaden the financial system. At the macro-level, access to finance; credit allocation to the private sector; and credit allocation to agricultural, industry and services sectors have been curtailed after the third generation financial sector reforms. This implies that they impede the full potential of the financial sector reforms' contribution to economic growth. The study concludes that financial sector reforms have growth-stimulating effect on Ghana.

The findings constitute new insights into what financial sector reforms are and how they affect economic growth. These have stimulated numerous recommendations and areas for further research.

6.4 Recommendations

Taking cognizance of the findings from the study, the following recommendations are proposed.

1. It is recommended that relevant authorities should continue pursuing financial sector reforms that emphasise quality rather than quantity to promote economic growth of Ghana but financial sector reforms should be pursued in conjunction with macroeconomic stability policies directly aimed at promoting macroeconomic stability conditions.

2. Relevant authorities should continue adopting financial sector reforms policies that are instrumental in fostering the development of digitized financial services in the banking industry to accelerate economic growth of Ghana but government should make adequate arrangement to transfer staff of collapsed banks into other sectors to prevent unemployment that accompanied the financial sector reforms.

3. Policy makers and regulatory bodies should formulate and implement policies that will improve access to finance; credit allocation to the private sector; and credit allocation to agricultural, industry and services sectors to reap the full potential of the financial sector reforms' contribution to economic growth.

4. Finally, there must be wide scale improvement in physical financial infrastructure development in facilitating gross capital formation, allocation, and investment in Ghana to ensure that financial sector reforms will contribute positively to economic growth.

6.5 Areas for Further Research

1. For further research in future it is suggested that it would be productive research to study relationship between financial sector reforms and economic growth in the context of financial markets (for example, in the context of capital market).

2. Future research related with financial sector reforms and economic growth should consider looking into its implementation in other financial institutions such as specialized deposit-taking institutions, mutual funds and insurance companies.

3. Further research in future should extend time horizon of the research and analyze more than three years annual financial statements such as four or five years might be a good research period.

REFERENCES

Adam, M.A. (2011). Financial Openness Induced Growth and Poverty Reduction. International Journal of Applied Economics and Finance, 5(1), pp. 75-86

Adjei-Frimpong, K. (2013). Bank Efficiency and Bank Competition: Empirical Evidence from Ghana's Banking Industry.

Adler, P.A. & Adler, P. (1994). Observational Technique. In N.K. Denzin & Y S. Lincoin (Eds.).

Adnan, N. (2010). Measurement of Financial Development: A Fresh Approach. Center for Islamic Economics and Finance, Qatar Faculty of Islamic Studies, Qatar Foundation. 8th International Conference on Islamic Economics and Finance

Affum, F. (2020). The Unintended Effects of Bank of Ghana's Clean-up Exercise on Affected Financial Institutions: Evidence from Yilo Krobo Municipality, Ghana. Asian Journal of Economics, Business and Accounting, 17(1), pp. 1-20

Aghion, P., Howitt, P. & Mayer-Foulkes, D. (2005). The Effect of Financial Development on Convergence: Theory and Evidence. Quarterly Journal of Economics 120(1), pp.173-222.

Agyekum, F. (2017). A Trajectory of Financial Inclusion Towards Economic Inclusion: Empirical Evidence from Lics – Ghana As a Case

Akinsola, F. A., & Odhiambo, N. M. (2017). The impact of financial liberalization on economic growth in sub-Saharan Africa. Economics & Finance, 5: 1338851

Akinwale, S. O. (2018). Analysis of Financial Sector Reforms on Economic Growth in Nigeria. European Journal of Business, Economics and Accountancy, 6(4),

Akpunonu, U., Egungwu, I., EthelMary O. & Emeka-Nwokeji, N. (2019). Effect of Financial Sector Reforms on Economic Growth in Nigeria.

Allen, D. S., & Ndikumana, L. (1998). Financial Intermediation and Economic Growth in Southern Africa. Working Paper Series 1998-004, The Federal Reserve Bank of ST. Louis,

Allen, D., & Ndikumana, L. (2000). Financial Intermediation and Economic Growth in Southern Africa. Journal of African Economies, 9(2), pp. 132-160.

Alnaa, S. A., Adongo, J. & Juabin, M. (2016). Comparative Analysis of Profitability of Local and Foreign Banks in Ghana. Asian Economic and Financial Review, 2016, 6(5): 238-246

Anamoo, E. C. (2020). Foreign banks in Ghana dominating Ghana's banking sector.

Ang, B. J., & McKinbbin, J. W. (2007). Financial Liberalization, Financial Sector Development and Economic Growth: Evidence from Malaysia. Journal of Development Economics, 84(1), pp. 215-233.

Anokye, M. A. (2009). Financial Liberalisation and Economic Growth in Ghana: An Application of the ARDL Bounds Testing Approach. School of management, University of Leicester, UK.

Antwi-Asare, T. O., & Addison, E. K. Y. (2000). Financial Sector Reforms and Bank Performance in Ghana, University of Ghana Overseas Development Institute. London, England:

Asamoah, G.N. (2008). The Impact of the Financial Sector Reforms on Savings, Investments and Growth of Gross Domestic Product (GDP) in Ghana. International Business and Economic Research Journal, 7(10), pp. 73-84

Awadzi, E. A. (2021). Ghana's banking sector stable, profitable and resilient https://mobile.ghanaweb.com/GhanaHomePage/business/Ghana-s-banking-sector-stable-profitable-and-resilient-Elsie-Addo-Awadzi-1392505

Ayim, E. (2021). Cheque Transactions drop as Momo Transactions exceed GH¢389 billion in 2020

Babbie, E. (2013). The Practice of Social Research (S.I): Wadsworth Cengage

Badeeb, R. A. & Lean, H. H. (2017). The Determinants of Financial Development in the Republic of Yemen: Evidence from the Principal Components Approach. Capital Markets Review, 25(2), pp. 32-48

Badun, M. (2009). Financial Intermediation by Banks and Economic Growth: A Review of Empirical Evidence. Financial Theory and Practice, 33(2),121-152.

Bank of Canada (2002). Measurements of Economic Growth

Bank of Finland (2004). The financial system in brief. Retrieved May 02, 2022 from: http://www.bof.fi/en/rahoitusmarkkinat/lyhyesti/index.htm

Bank of Ghana (2017). The State of the Financial Sector in Ghana. Bank of Ghana: https://www.bog.gov.gh/privatecontent/Public_ Notices/State%20of%20the%20Banking%20 System.pdf. 2017.

Bank of Ghana (2018). Payment System Statistics. Bank of Ghana: https://www.bog.gov.gh/payment-systems/payment-systems-statistics.

Bank of Ghana (2019). Notice of Revocation of Licenses of Insolvent Microfinance Companies and Appointment of Receiver. 2019.

Bank of Ghana (2020). Bank of Ghana: Licensed Banks, Representative Offices and Their Registered Offices in Ghana. Accra: Bank of Ghana. Retrieved 2nd May, 2022.

BoG (2017). Emerging Developments in the Banking Industry of Ghana

BoG (2019). BoG's Update on Banking Sector Reforms

Bawumia, M. (2010). Monetary policy and financial sector reform in Africa: Ghana's experience. Florida, FL: Book Locker Publishing.

Beck, T., Levine, R., & Loayza, N. (2000). Financial intermediation and growth: Causality and Causes, Journal of Monetary Economics, (46), pp. 31-77.

Boyreau-Debray, G. (2003). Financial Intermediation and Growth: Chinese Style. Policy Research Working Paper 3027, The World Bank.

Campbell, D. T., & Stanley, J. C. (1986). Experimental and Quasi-Experimental Designs for Research. Cengage Learning.

Carlin, W., & Mayer, C. (2003). Finance, investment, and growth. Journal of Financial Economics, 69, 191-226.

Ciapanna, E., Mocetti, S., & Notarpietro, A. (2022). The Macroeconomic Effects of Structural Reforms: An Empirical and Model-Based Approach

Cohen, L., Manion, L., & Morrison, K. (2007). Research Methods in Education, Sixth Edition, Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN.

Consultative Group to Assist the Poor-CGAP (2015). Financial Inclusion Insights (FII) Survey. Consultative Group to Assist the Poor.

Cornwall, J. I. (2018). Economic Growth. Retrieved from https://www.britannica.com/topic/economic-growth.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, & Mixed Methods Approaches. 3rd ed.

Dapaah, D. K. (2015). Spatial Distribution of Solid Waste Collection Points in KMA and the Community Perception about Solid Waste Management

Demirguc-Kunt, A., & Levine. R. (1996). Stock markets, corporate finance and economic growth: An overview. The World Bank Economic Review 10(2), pp. 223-239.

De Vaus, D. A. (1996). Survey in Social Research, 4th Ed. London: UCL Press

Dudwick, N., Kuehnast, K., Jones, V. N., & Woolcock, M. (2006). Analyzing social capital in context. A guide to using qualitative methods and data, 1-46.

Duggal, N. (2021). What is Data Processing: Types, Methods, Steps and Examples for Data Processing Cycle

Dwivedi, R. S. (1997). Research Methods in Behavioural Sciences. Macmillan India Limited, New Delhi. Oaks, CA. Handbook of Qualitative Research (pp. 377-392). Sage Publications Thousand

Ege, I., Nazlioglu, S., & Bayrakdaroglu, A. (2008). Financial Development and Economic Growth: Cointegration and Causality Analysis for the Case of Turkey (Management and Administration Research Center.

Ekumah, E. K., & Essel, T. T. (2001). Gender Access to Credit Under Ghana's Financial Sector Reform: A Case Study of Two Rural Banks in The Central Region of Ghana.

Eta, A. E., & Anabori, M. B. (2015). Financial Sector Reforms and Economic Growth in Nigeria, International Journal of Economics, Commerce and Management, United Kingdom, (3)9,

Fadare, S. O. (2010). Recent Banking Sector Reforms and Economic Growth in Nigeria. Middle Eastern Finance and Economics, (8), pp. 146 - 160.

Foddy, W. (1993). Constructing Questions for Interviews and Questionnaires, Cambridge: Cambridge University Press.

Frimpong B. F., & Molkenthin, F. (2021). Tracking Urban Expansion Using Random Forests for the Classification of Landsat Imagery (1986–2015) and Predicting Urban/Built-Up Areas for 2025: A Study of the Kumasi Metropolis, Ghana.

Fry, M. J. (1988). Money, Interest, and Banking in Economic Development. Baltimore, MD: John Hopkins University Press.

Rajan, R. (1992). Insider and outsiders, the choice between Informed and Arm's-Length Debt. Journal of Finance, (47), pp. 1367-1400.

Gidigbi, M. O. (2017). An Assessment of the Impact of Banking Reforms on Economic Growth and Bank Performance in Nigeria. CBN Journal of Applied Statistics, 8(2), pp. 143- 162

Ghana Statistical Service (2021). Ghana 2021 Population and Housing Census

Ghana Statistical Service (2020). Ghana GDP Annual Growth Rate 2000-2020 Data / 2021-2023 Forecast / Calendar, Tradingeconomics.com

Goldstree Business (2020). Banking in the Face of Technology

Goode, W., & Hatt, K. P. (2006). Methods in Social research. New Delhi: Surjeet Publication

Gulzar, A. (2020). Financial Sector Reforms and its Impact on Economy of Pakistan Asian Journal of Law and Economics,11(2),

Hao, C. (2006). Development of Financial Intermediation and Economic Growth: The Chinese Experience. China Economic Review, 17(4), pp. 347-362

Healey, J. F. (2009). Statistics: A Tool for Social Research, 9th ed. Wadsworth, Cengage Learning. Belmont, CA. USA.

Hoinville, G., & Jowell, R. (1985). Survey Research Practice, London:

Holt, G., Rinehart, B., & Winston, A. (1967). Research Method in Social Relation. United States of America: The Society for the Psychological Study of Social Issues

Ibrahim, B. (2011). Financial Deepening and Economic Growth in Ghana

IMF (2020). World Economic Outlook Database. The economic context of Ghana

International Finance Cooperation (2020). Sustainability in the Ghana Financial Sector

Ito, H., & Kawai, M. (2018). Quantity and Quality Measures of Financial Development: Implications for Macroeconomic Performance. Policy Research Institute, Ministry of Finance, Japan, Public Policy Review, 14(5).

Ivankova, N., & Stick, S. (2005). Preliminary model of doctoral students' persistence in the computer-mediated asynchronous learning environment. Journal of Research in Education, 15(1), 123-144.

Jung, W. S. (1986). Financial Development and Economic Growth: International Evidence. Economic Development and Cultural Change, (34), pp. 336–346.

Kamasa, K., Mochiah, I., Doku, A. K., & Forson, P. (2020). The impact of financial sector reforms on foreign direct investment in an emerging economy: empirical evidence from Ghana. Journal of Humanities and Applied Social Sciences, 2(4), pp. 271-284

Kamasa, K. (2013). Do Financial Sector Reforms Promote Private Sector Investment? The Case of Ghana.

Kargbo, S. M., & Adamu, P. A. (2010). Financial Development and Economic Growth in Sierra Leone. Journal of Monetary and Economic Integration, 9(2), pp. 31-61.

Kawulich, B. B. (2015). Collecting Data Through Observation

Kerlinger, F. N. (1979). Founded of Behavioural Research, New York: H 107, Rinehart and Winstem Inc.

Khalid, A., & Nadeem, T. (2017). Bank Credit to Private Sector: A Critical Review in the Context of Financial Sector Reforms

Khan, A. R. (2008). Bank Management- A Fund Emphasis. First edition, 2nd Print, P-59-60, Ruby publications, Dhaka.

Khan, A., & Qayyum, A. (2006). Trade liberalisation, financial sector reforms and growth. The Pakistan Development Review, 45(2), 711-731.

Kiani, A., & Ali, M. (2019). Impact of Financial Intermediation and Financial Sector Efficiency on Economic Growth in Pakistan. JISR-MSSE, 17(1).

Kombo & Tromp, (2006) Research Methods. Nairobi. Kenyatta University Institute of Open Learning

Kouser, R., & Saba, I. (2012). Gauging the Financial Performance of Banking Sector using CAMEL Model: Comparison of Conventional, Mixed and Pure Islamic Banks in Pakistan, International Research Journal of Finance and Economics, 82

Kumar. R. (2006). Research Methodology. New Delhi: Dorling Kingsley

Kumar S. V. (2020). Methods of Data Collection: Observation, Interview & Focus Group Discussion

Levine, R. (2004). Finance and Growth: Theory and Evidence. Handbook of Economic and Growth, In: Philippe Aghion & Steven Durlauf (ed,), Handbook of Economic Growth, 1st ed. (1),

Levine, R. (2006). Finance and Growth. Theory and Evidence: Handbook of Economic Growth. Elseveir

Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda. Journal of Economic Literature, (35), 688-726.

Levine, R. (1997). Stock markets, economic development, and capital control liberalisation, Investment Company Institute Perspective 3(5), 1-5.

Lucas, R. (1988). On the Mechanics of Economic Development. Journal of Monetary Economics 22, pp. 2-42.

Lucumay G. (2014). Access to Finance and SMES Growth: A Cross-Sectional Study of SMES in Dodoma Municipality

Maimbo, S. M., & Mavrotas, G. (2003). Financial Sector Reforms and Savings Mobilization in Zambia

Makhija, P. (2019). A brief primer on linear regression – Part II

Mbaeri C. C., Adioha, N. F., & Uzokwe- Nnamdi, J. (2015). Bank Reform and Economic Growth in Nigeria

McKinnon, R. I. (1973). Theoretical Issues in Financial Intermediating Financial Markets, Macro-Economic Management and Monetary Policy in Financial Markets in Nigeria, CBN, Abuja.

McKinnon, R. I. (1973). Money and Capital in Economics Development (Washington: The Bookings Institute). Nigeria Bureau Statistics (2009). Annual Abstract of Statistic. Abuja NBS

Ministry of Finance (2018). National Financial Inclusion and Development Strategy NFIDS.(https://www.mofep.gov.gh/sites/default/files/acts/NFIDs_Report.pdf).

Ministry of Finance (2018). Digital Financial Services Policy. Ghana Ministry of Finance. (unpublished).

Mishra, R. P. (1989). Research Methodology. New Delhi: Concept Publication Company

Moser, C. A., & Kalton, G. (1971). Survey Methods in Social investigation. Aldershot: Gower

Moyo, J., Nandwa, B., Jacob Oduor, J., & Simpasa, A, (2014). Financial Sector Reforms, Competition and Banking System Stability in Sub-Sahara Africa

Mulder, P. (2017). Conceptual Framework. Retrieved [02/05/2022] from Toolshero: https://www.toolshero.com/problem-solving/conceptual-framework/

Ngugi, R. W., & Kabubo, J. W. (1998). Financial Sector Reforms and Interest Rate Liberalization: The Kenya Experience. African Economic Research Consortium

Nkegbe, P. K., & Yazidu, U. (2015). Banks Performance in Ghana: Trends and Determinants

Nwani, D.C. (1973). The Role of Monetary and Financial Institutions in Economic Development in Nigeria, 1800-1970. Unpublished Ph.D Thesis submitted to the Department of Economics, Florida State University, U.S.A.

Oduro-Asamoah, J. (2015). Challenges of Deposit Mobilisation at Agricultural Development Bank

OECD (1990). Comparative Advantage in Agriculture in Ghana. Working Paper (31)

Okoi, O. I., Ocheni, I. S., & Orok, B. A. (2019). Impact of Banking Sector Reforms on Economic Growth in Nigeria. European Journal of Scientific Research, 154(2), pp. 230-240

Olowofeso, E. Adeleke, A., & Udoji, A. (2015). Impact of Private Sector Credit on Economic Growth in Nigeria. CBN Journal of Applied Statistics, 6(2) 81

Oppenheim, A. N. (1978). Questionnaire Design and Attitude Measurement. London: Heinemann.

Owusu-Antwi, G. (2009). Impact of Financial Reforms on the Banking System in Ghana. International Business & Economics Research Journal, 8(3), 77-100

Owusu, E. L. (2017). Progress and Challenges of Financial Reforms in Ghana.

Owusu, E. L., & Odhiambo, N. M. (2015). Financial Sector Reforms and Economic Growth in Ghana: A Dynamic ARDL Model. Contemporary Economics, 9(2), PP. 181-192

Oxford Business Group. (2020) Banking reforms in Ghana to encourage consolidation and promote best practices.

Pagano, M. (1993). Financial markets and Growth: An Overview. European Economic Review, 37, pp 613-622.

Pal, M. (2018). Financial Sector Reforms and Economic Growth in Zambia.

Poshakwale, S. S. & Qian, B. (2009). Competitiveness and Efficiency of the Banking Sector Reform and Economic growth in Egypt.

PWC (2020). The new normal: Banks' response to COVID-19.

Quarshie, J. (2011). Improving Efficiency of Savings Mobilization in Ghana

Quartey, P. (2005). Financial Sector Development, Savings Mobilization and Poverty Reduction. WIDER Discussion Paper No. 2005/71.Helsinki: UNU-WIDER

Quentin, A. (2019). Data Collection Methods. Jotform Education Retrieved from: https://www.jotform.com/data-collection-methods/

Rajan, R. (1992). Insider and outsiders, the choice between Informed and Arm's-Length Debt. Journal of Finance, (47), pp. 1367-1400.

Ranciere, R., & Tornell, A. (2016). Financial Liberalization, Debt Mismatch, Allocative Efficiency, and Growth. American Economic Journal, 8(2),1 - 44.

Rehman, W. (2011). Banking Reforms and Economic Growth: A Case Study of Pakistan, International Conference on Financial Management and Economics

Robinson, J. (1952). The Generalization of the General Theory. In: The Rate of Interest, and Other Essays. London: McMillan pp 67–146.

Romer, P (1986). Human Capital and Growth: theory and Evidence, NBER, Working Paper. 3173, Nov.

Romer, P, (1990). Human Capital and growth: theory and evidence. Carnegie Rochester Conference Series on Public Policy, 32, 251-86.

Rostow, W.W. (1960), The Five Stages of Economic Growth, Cambridge: Cambridge University Press. Tilman Altenburg Industrial policy in Developing Countries-overview and lessons from country cases

Sarantakos, S. (2005). Social Research, (3rd ed), Palgrave Macmillan. New York

Schumpeter, J. A. (1911). The Theory of Economic Development. Oxford: Oxford University Press.

Schumpeter, J. A. (1934). The theory of economic development. Cambridge, MA: Harvard University Press.

Sekakela, K. (2018). Financial Development and Economic Growth in Botswana. Botswana Institute for Development Policy Analysis

Shaw, E.M. (1973). Financial Deepening and Economic Development, Oxford University Press, New York, NY.

Siaw, F., & Anokye, M. A. (2010). Does Financial sector Development Cause Investment and Growth? Empirical Analysis of the case of Ghana

Singh, C. (2005). Financial Sector Reforms in India

Solow, R. M. (1956). A contribution to the Theory of Economic Growth. Quarterly Journal of Economics, 70(1): 65-94

Sowa, N. K., & CEPA, A. (2003). Financial sector reform policies and poverty reduction. Accra, Ghana: Centre for Policy Analysis.

Swan, T. W. (1956). Economic Growth and Capital Accumulation. Economic Record, 32(2):333-361. Economics and Management, 2, 407-437.

Sulaiman, L., Oke, M., & Azeez, B. (2012). Effect of Financial Liberalization on Economic Growth in Developing Countries: The Nigerian Experience International Journal of Economics and Management Sciences, 1(12), 16-28

Summers, R. L. (1998). Computer Simulation Studies and the Scientific Method. Journal of Applied Animal Welfare Science, 1(2), pp. 119-131

Streefkerk, R. (2019). Qualitative vs. Quantitative Research

Thomas, L. (2020). What is a cross-sectional study?

Tsikata, K. (2007) Challenges of economic growth in a liberal economy. Ghana: one decade of the liberal state. Zed Books, London.

Udofia, C. A. (2010). Banking Reforms in Nigeria, its Pitfalls and the Stability of the Banking System. (Unpublished doctoral dissertation), University of Calabar.

Usman, A. (2011). Financial Reforms and Banking Efficiency: Case of Pakistan

Wadud, M. A. (2005). Financial Development and Economic Growth: A Cointegration and Error Correction Modeling Approach for South Asian Countries. Economics Bulletin, 29(3), pp. 1670-1677.

Waheed, A. (2009). Financial Sector Reforms and Economic Growth: A Time Series Data Analysis for Pakistan

White, S. (2020). Mind Blowing Information on Cross-Sectional Data

Wilson. M. J., & Miller P.M. (1993). A Dictionary of Social Science Methods. New York: John Wiley & Sons

World Bank (2020), Tradingeconomics.com - Ghana - Domestic Credit to Private Sector by Banks (% of GDP)

World Bank Group (2019). 4th Ghana Economic Update: Enhancing Financial Inclusion- Africa Region: Financial sector development and financial inclusion.

World Bank Group (2019). Global Financial Development Report, 2019.

World Bank (2014). Promoting Financial Inclusion for Growth and Development in Iraq. World Bank

Xu, Z. (2000). Financial Development, Investment, and Economic Growth. Economic Inquiry, 38(2), pp. 331-344.

Xuezhi Q. & Benson O. N. (2013). Role of financial development in economic growth: Evidence from savings and credits cooperative societies in Tanzania. International Journal of Financial Research, 4(2), 110-145.

Yamane, T. (1967). Statistics: An Introductory Analysis, 2nd Ed. New York: Harper and Row

Yu, M., & Liu, C. (2007). Banking Sector Reform and Economic Growth: Case study of the South Korean banking sector reform.

Ziorklui, Q. S. (2001). The Impact of Financial Sector Reform on Bank Efficiency and Financial Deepening for Savings Mobilization in Ghana.

APPENDICES

APPENDICE A: INSTRUMENT # 1: OBSERVATION CHECKLIST

SELINUS UNIVERSITY OF SCIENCES AND LITERATURE
OBSERVATION CHECKLIST FOR SELECTED UNIVERSAL BANKS' STUDY PARTICIPANTS IN KUMASI METROPOLIS, GHANA

This checklist is designed to be used to observe the state of third generation financial sector reforms and Economic Growth. For each item, check each time you observe a practice in the box provided. Make notes in the space provided about examples of what you observed. As there are a lot of activities or tasks involved in conducting an observation, it is almost impossible to remember all of them mentally. Observers who are conducting or who will be conducting an observation, need the help of an observation checklist. An observation checklist will list all of the things that an observer needs to look for when conducting an observation. It is the tool that you first look at to be able to conduct a useful and effective observation. It also helps in producing desirable and goal-oriented results as the focus of the observer will be directed to what is required in the observation checklist. Observation checklist is one of the essential steps that bring success to research studies in social science research. Researchers and scientists are able to learn about new things and produce new findings all thanks to their curiosity and impressive observation checklist skills. The better you do observation checklist the more data you can gather leading to high-quality results. Given your role as a researcher or observer, use all your senses, sense of seeing (eye contact), sense of hearing, sense of smell, sense of touch or feel, sense of taste, sense of direction, sense of movement, sense of duty, sense of purpose, sense of obligation, sense of right and wrong, sense of meeting, sense experience to observe and report what you observed.

The Observation Checklist is to be Completed by the Researcher or the Observer. As a guide the time taken to observe the situations outlined on this check list is 45 minutes	**Check Yes or No to Indicate Whether This Occurs? Check if Observed, and Report.**		
OBSERVATION CRITERIA AND ACTIVITY	**Record Your Comment**		
❑ **A: Planning: Observation Type, Approach**	YES	NO	
❑ Is the observation **direct** or **indirect**?	YES		
❑ Is the observation **participant observation** or **non-participant observation or quasi-participant observation**?	YES		
❑ Who you plan to observe and of what duration?	YES		
❑ Where is the location of the observation?	YES		

❑ Is the presence of the observer known **(overt)** or unknown **(covert)** to the subjects? ❑ Does the subject and individuals in the environment know the purpose of the observation? ❑ Is the observation structured and quantitative? ❑ How you plan to control your biases?	YES ✓ YES ✓ YES ✓ YES ✓		
❑ **B: Implementing and Recording** ❑ How will you present yourself and Eased into the observation situation? ❑ What tools will you use (i.e.) an observational checklist, field notes, and how will you record your data? ❑ What evidence you expect to observe?	YES ✓ YES ✓ YES ✓		
❑ **C: Evidence of Dominant Variables:**	YES ✓	NO ✓	
❑ **Evidence of Technological Capacity:** ❑ Have you observed the bank's employees using computer application software in delivering financial services to customers? ❑ Does technological capacity associated with the financial sector reforms increased efficiency and productivity of the bank?	YES ✓ YES ✓ YES ✓		
❑ **Evidence of Digital Transformation: Digitization** ❑ Have you observed the bank employees and customers using digitized financial services and products (ie. Internet banking; Mobile banking; ATMs; E-zwich; GHIPPS Instant Pay; Payment system; Gh-link, Mobile money; QR Code; Interoperability; ACH direct credit)? ❑ Is the digital transformation or digitization of the bank, state-of the art financial surveillance software and Cyber security system in line with Digital Ghana Agenda? ❑ Have you observed digitalization and digital transformation of the banking industry has enhanced financial inclusion within the payment ecosystem?	YES ✓ YES ✓ YES ✓ YES ✓	NO ✓	
❑ **Evidence of Access to Finance and Financial Inclusion:** ❑ Does the bank provide access; usage; quality and availability of formal financial services to unbanked adult population in the informal sector, and serves the needs of wider spectrum of society in an affordable and efficient manner, regardless of their socio-economic status? ❑ Have you observed improvement in access to finance and financial inclusion from 58 percent of Ghana's adult population to 85 percent?	YES ✓ YES ✓ YES ✓	NO ✓	
❑ **Evidence of Bank Credit to Private Sector:** ❑ Have you observed the credit processing department of the bank and its allocation of credit (loans) to productive sectors of the economy; (agricultural, industry and services sectors) for growth?	YES ✓ YES ✓ YES ✓	NO ✓	

❑ Have you observed improvement in credit allocation?			
❑ **Evidence of Productivity Growth:** ❑ Have you observed the greater output from the same amount of input per bank employee that translate into increased GDP and overall economic outputs of the whole economy?	YES YES		
❑ **Evidence of Savings Mobilization:**	YES	NO	
❑ Have you observed some innovative products the bank has introduced and other innovative approaches of mobilizing domestic savings from the public to ensure efficient allocation of financial resources and internally generated funds (IGF) for higher economic growth?	YES		
❑ **Evidence of Economic Growth (Real GDP Growth):** ❑ Have you observed Ghana's Economic growth which was on a declining trend has been restored and the economy continued to expand at a fast pace? ❑ Have you observed, Ghana's economic growth has been impressive since 2017 but overall real GDP growth fell in the last quarter of 2020 due to Covid-19 pandemic? ❑ Does the bank generate indicators on Sectoral Contribution to Ghana's Real GDP Growth?	YES YES YES YES	NO	
❑ **Evidence of Capital Accumulation:** ❑ Does the bank create wealth, develop skills of labour force (human capital), and invest in more capital goods (physical capital), for example, buildings, factories, equipment, tools, machines and vehicles parts?	YES YES	NO	
❑ **Evidence of Human Development:** ❑ Have you observed the educational and capacity building programmes; refresher courses; software application training, and professional development programs the bank provides to its' employees that relates to their job?	YES YES	NO	
❑ **Evidence of Investments:** ❑ Have you observed the bank's investment in financial assets such as securities; treasury bills to make investment more worthwhile to engender economic growth?	YES YES	NO	
❑ **Evidence of Recapitalization:** ❑ Have you observed the bank comply with the new minimum paid-up capital of GH¢400 million? ❑ Have you observed the recapitalisation process has scaled down the number of universal banks from 34 to 23 in 2019?	YES YES	NO	
❑ **Evidence of Prudential Regulation:** ❑ Does the Chief Operating Officer and Chief Financial Officer enforce compliance with prudential regulation and align regulatory capital requirements with Basel II & III? ❑ Have you observed in 2019, the bank strengthened the prudential and regulatory environment for payment systems	YES YES	NO	
❑ **Evidence of Revocation of Licenses/Closure of Banks:**	YES	NO	

❑ Have you observed the financial sector reforms resulted in the revocation of licenses of 420 weak institutions due to poor corporate governance and high non-performing loans?	YES		
❑ **Evidence of Microeconomic Stability:**	YES	NO	
❑ Have you observed the inflation rate has remained single digit since July 2018? ❑ Have you observed the interest rate has been reduced and remained stable since 2017? ❑ Have you observed the exchange rate of the domestic currency 'Cedis' has been stable against major currencies? ❑ Have you observed the employment rate has improved?	YES YES YES YES		
❑ **Evidence of Corporate Governance Directives:** ❑ Have you observed in 2018, the Bank of Ghana took some measures to strengthen the oversight and supervision? ❑ Have you observed in 2019, the bank organised a mandatory certification training programme for directors of banks to ensure compliance with the directive?	YES YES YES	NO	
❑ **Evidence of Consolidation (Takeovers, and Mergers)** ❑ Have you observed on August 14, 2017, the Government of Ghana issued a bond to takeover two indigenous banks, UT Bank LTD and Capital Bank LTD and their assets and liabilities were transferred to Ghana Commercial Bank LTD (GCB LTD)? ❑ Have you observed on August 1, 2018, the Bank of Ghana announced the consolidation of five indigenous banks; Unibank Ghana Ltd; The Royal Bank LTD; Beige Bank LTD; Sovereign Bank LTD; and Construction Bank LTD to form a new a bridge bank called the Consolidated Bank Ghana LTD (CBG LTD), established by the Government?	YES YES YES YES	NO	

APPENDICE B

APPENDICE B: INSTRUMENT #: 2 SURVEY QUESTIONNAIRE

SELINUS UNIVERSITY OF SCIENCES AND LITERATURE
SURVEY QUESTIONNAIRE FOR SELECTED UNIVERSAL BANKS' EMPLOYEES AND CUSTOMERS IN KUMASI METROPOLIS, GHANA

SECTION 1. INTRODUCTION

1.1 Cover Letter

Dear Respondents,

Hello, my name is Mr. Antwi-Bosiako Steve, a final-year PhD candidate in Finance and Economics at Selinus University of Sciences and Literature. As part of my programme, I am conducting research to analyse the effects of third generation financial sector reforms in the banking industry on economic growth of Ghana.

Through this brief 30-minute survey, your responses to the survey questionnaire will be helpful in achieving the objective and tenacity of this research work. The research is mainly an academic exercise, which is a requirement for the award of a degree. Your responses to the survey questionnaire will only be used for an academic purpose. Conversely, it has nothing to do with the government or any commercial motive. There will be no incentives in the form of cash payment to participants. However, at your request, any participant may receive an executive summary of the findings of this research.

1.2 Data Privacy: Privacy of Participants, Confidentiality and Anonymity of Responses

Data Privacy: Privacy of Participants, Confidentiality and Anonymity of Responses
I would like to confirm that the responses of this questionnaire are subject to data privacy and will be treated in the strictest confidence. The responses would be used exclusively for the research purpose and will be presented in an aggregate form. Therefore, it will not reveal any individual's identity or any particular bank's practice. The researcher will not use anyone personal information outside of this project. Also, the researcher will not include any information that could identify you or the organization in the reports.

1.3 Demographic Data

1. What is your age group?	2. What is your gender?	3. What is your marital status?	4. What is your highest educational qualification?
1. 21-30 2. 31-40 3. 41-50 4. 51-60	1. Male 2.Female	1. single 2. married 3. separated 4. divorced 5. widow(er)	1. Senior High School Certificate 2. Bachelor degree 3. Master degree 4. PhD

5. What specific bank do you work for?

1. Ecobank Ghana Limited

2. Absa Bank Ghana Limited

3. GCB Bank Limited

6. What is your job title?

1. Teller 2. Credit Officer 3. Branch Manager

4. Head of Human Resources 5. HR-Advisor

6. Chief Operating Officer (COO) 7. Chief Financial Officer (CFO)

7. What specific bank you have an account with?

1. Ecobank Ghana Limited.

2. Absa Bank Ghana Limited.

3. GCB Bank Limited

8. For how long have you been saving with this bank?

1. 1-3 yrs.

2. 4-6 yrs.

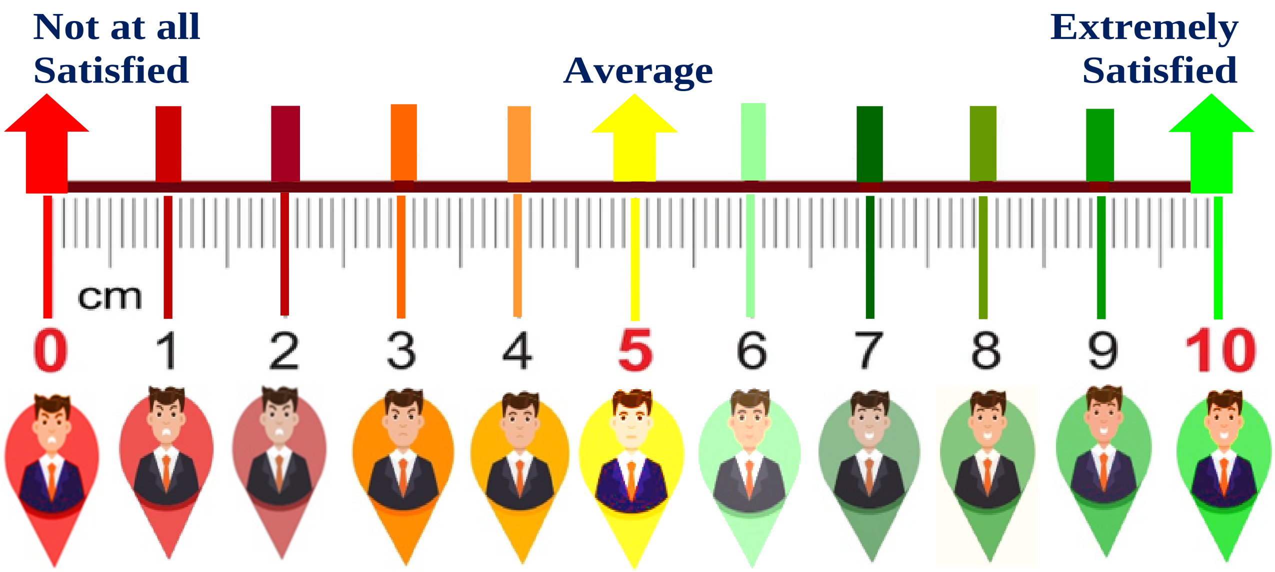
3. 7-9 yrs.

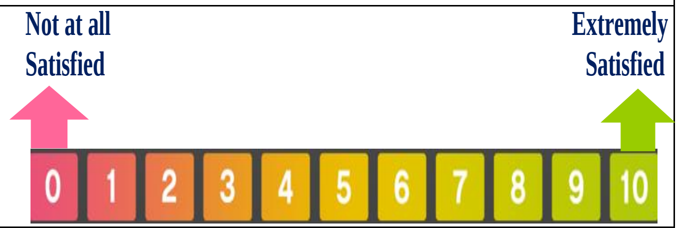
4. 10-12 yrs

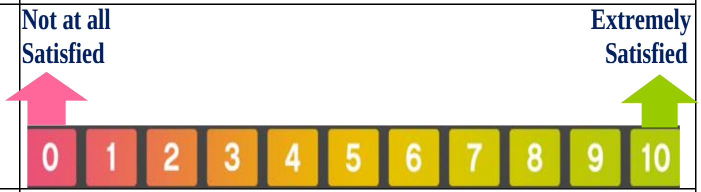
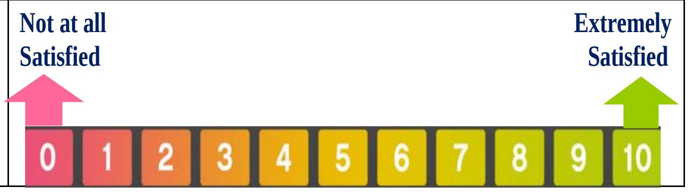
SECTION 2: INSTRUCTIONS AND SECTION 3: MAIN QUESTIONS (STRUCTURED, STANDARDIZED CLOSED-ENDED QUESTIONS)

Using a 11-point continuous rating scale with, numerical marks and descriptors ranging from 0 to 10 provided below, where 0 = Not at all Satisfied, 1 = Very Dissatisfied, 2 = Dissatisfied, 3 = Somewhat Dissatisfied, 4 = Slightly Dissatisfied, 5 = Average, 6 = Slightly Satisfied, 7 = Somewhat Satisfied, 8 = Satisfied, 9 = Very Satisfied, 10 = Extremely Satisfied. Please, rate how likely would the following reflect your opinion. Tick off the number that best reflects your opinion. Use the same scale to answer all the questions in this Section.

11-Point 0-10 Continuous Rating Scale, with Numerical Marks and Descriptors

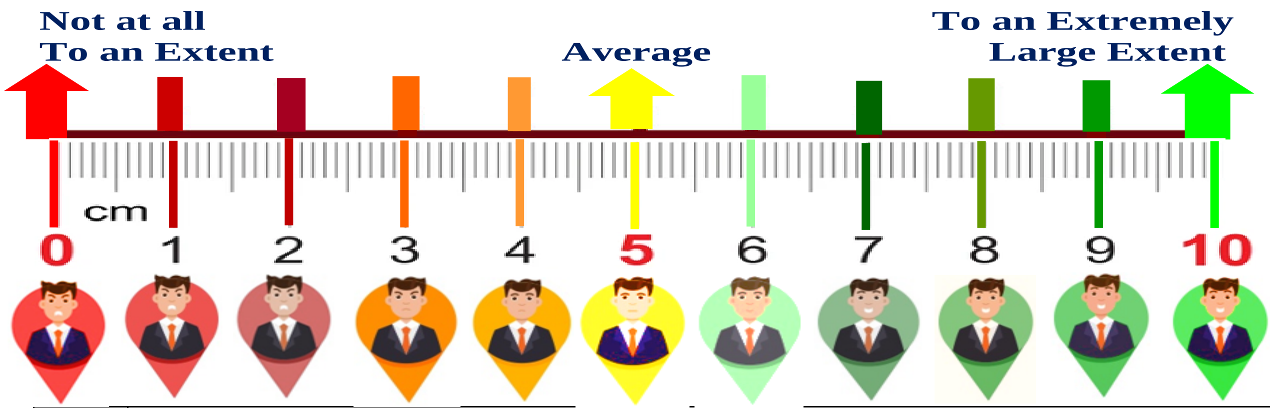


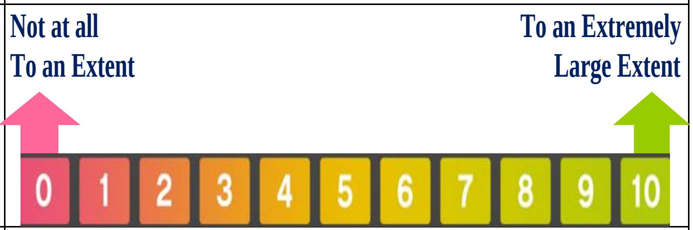
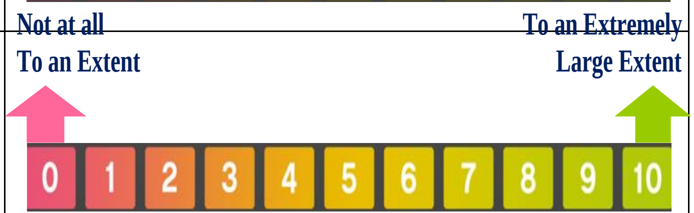
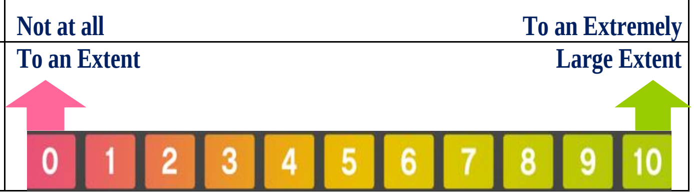
S/N	QUESTION	RESPONSE
Q1.	Considering your overall observation of the financial sector reforms in the banking industry, please rate how satisfied are you with the state of third generation financial sector reforms in Ghana?	
Q2.	Please, rate how satisfied are you with digital transformation in the banking industry such as, Internet Banking; ATMs; E-zwich; Gh-link; GhIPSS Instant Pay; QR Code; Mobile money services; Mobile money Interoperability;	

	Mobile Banking etc. in Kumasi Metropolis?	
Q3.	Please, rate how satisfied are you with financial inclusion during and after a period following the aftermath of the financial sector reforms in Kumasi Metropolis?	
Q4	Taking everything into consideration, please rate how satisfied are you with the quality of products and services you receive from this bank during and after a period following the aftermath of the financial sector reforms in Kumasi Metropolis?	
Q5	Overall, please rate how satisfied are you with the state of economic growth in Ghana?	

Using a 11-point continuous rating scale with, numerical marks and descriptors ranging from 0 to 10 provided below, where 0 = Not at all To an Extent, 1 = To a Very Small Extent, 2 = To a Small Extent, 3 = To a Somewhat Small Extent, 4 = To a Slightly Small Extent, 5 = To an Average Extent, 6 = To a Slightly Large Extent, 7 = To a Somewhat Large Extent, 8 = To a Large Extent, 9 = To a Very Large Extent, 10 = To an Extremely Large Extent, please rate the extent to which the following reflect your opinion. Tick off the number that best reflects your opinion. Use the same scale to answer all the questions in this Section.

11-Point 0-10 Continuous Rating Scale, with Numerical Marks and Descriptors



S/N	QUESTION	RESPONSE
Q6.	Considering your overall observation of the financial sector reforms in the banking industry, please rate the extent to which the financial sector reforms have increased economic growth of Ghana?	
Q7.	Please, rate the extent to which the financial sector reforms have increased credit allocation to the three most productive sectors in the economy; (agricultural sector; industry sector and services sector) in Kumasi Metropolis?	
Q8.	Please, rate the extent to which the financial sector reforms have restored confidence in the banking industry in Ghana?	
Q9.	Please, rate the extent to which the financial sector reforms have improved savings mobilization of banking industry in Kumasi Metropolis?	
Q10.	Please, rate the extent to which the financial sector reforms have improved technological capacity of banking industry in Kumasi Metropolis?	
Q11.	Please, rate the extent to which the financial sector reforms have increased credit allocation to the private sector in Kumasi Metropolis?	

Q12.	Please, rate the extent to which the financial sector reforms have improved access to finance in Kumasi Metropolis?	**Not at all To an Extent** … **To an Extremely Large Extent** 0 1 2 3 4 5 6 7 8 9 10

Thank you very much for your time completing the survey questionnaire. Your participation is much appreciated.

THE END.

.