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The Impact of Economic Growth of Middle -Income on Individuals Level of Savings in Ghana

Dr. Daniel Delali Kornu*
Department of Accounting and Finance, School of Business,
Evangelical Presbyterian University College- Ho, Ghana
Email: kodela25@yahoo.com OR dkornu1@gmail.com

Dr. Emmanuel Opokuware
Department of Accounting and Finance, School of Business,
Evangelical Presbyterian University College- Ho, Ghana
Email:emmanuelopokuware@gmail.com

Samuel Kwaku Obeng- Gyampo
Department of Finance, Kwame Nkrumah University
and Science and Technology (KNUST),
Kumasi, Ghana
Email: sambengkwaku@yahoo.com

Docia Frempomaa Karikari
Department of Finance, Kwame Nkrumah University
and Science and Technology (KNUST), Kumasi, Ghana

Abstract
The crucial goal of any economic policy of a country is to have a positive socio-economic impact on the individual citizen of that country. The present research, investigated the relationship that exists between the Middle-Income staus of Ghana and level of savings of individuals. The research was an exploration in nature, and has adopted the mixed method approach in making an empirical investigation appropriate into Economic Growth and its impact on Middle Income of Individuals level of savings in Ghana. Integration both qualitative and quantitative in the analysis for the research results. By the use of quantitative research approach, statistical analysis of content analysis of findings were applied, since it helped in assessing the associations amongst Economic Growth variables and Middle Income of Individual Ghanaians.Additionally, a qualitative approach, using semi-structured interviews and follow-up interviews, which were applied to examine the topic under instigations. The quantitative framework in the research adopted a longitudinal study approach to collect 25 years macroeconomic variables data on Ghana from the year 1990 to 2015 and in the case of the qualitative framework a stratified sample method selected for the research study, since it required equal stratum and avoids selection bias towards determining sample sizes.The results established that, the large number of Ghanaian saved some level of their income, with a high consumption level. In order to maintain this level of savings and encourage more savings in future amongst citizen, it is recommended that, there should be a provision of the basic needs that will facilitate businesses and community activities and make life pleasant. Again, such basics social services such as water, electricity, good transportation systems should be provided for the citizens in subsidized rate since citizens use lot of their incomes in paying that. Such incomes could be channeled into further savings.
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1.0 INTRODUCTION

1.1 Background of the Study

The rise of a national consciousness in Ghana had developed almost getting to the later part of the first half of the twentieth century in response to colonial socio-economic policies. The call for national freedom came about due to the activities of some few educated elites just after the World War II, where the idea of independence apprehended the minds of so many groups of people and this gained a popular support. After nearly eight years of struggle, the state of Ghana achieved her independence under Dr. Kwame Nkrumah. Ghana's first independent administration, therefore, was inducted into office on March 6, 1957, with Kwame Nkrumah as the Prime Minister.

Immediately after the political independence came also the need and subsequent struggle for economic independence. The government of Nkrumah tried its best to adopt social economic policies to help the country attain some level of economic development for Ghanaian. Since that period and till today, several governments came into the political scene both military and civilian, trying to roll out different and varied economic policies purposely of moving the economy forward. All these governments aimed at creating wealth, jobs and also to create stable macroeconomic for investments. Interestingly, though some of these economic policies adopted by these various regimes came with some level of success some also came without any success at all.

Ghana had largely liberalised her economic controls to some degree as result of the launching of the Economic Recovery Programme (ERP) in 1983, due to severe drought at the time which was supported by Interenational Monetary Fund (IMF). As a result, putting in place some measures that could encourage higher economic growth, savings and attract investment. It also tried in the process to promote diversification in the economy (Aryeetey, Harrigan, and Nissanke 2000; Aryeetey and McKay 2007). Ghana's economy seemed to be on recovery in 2001, with real GDP growth rising from the tumbling trend seen since 1998.

Ghanaian economy recovery in 2001 was significant, with real GDP growth which took an upward turn from the declining trend seen since 1998. Real GDP growth in 2001 registered 4.2 percent from the decade low of 3.8 percent recorded the preceding years. The outlook on growth is stabilisation in 2002 and improvement in 2003—real GDP growth is estimated at 4.4 percent and projected at 5.2 percent respectively (African Economic Outlook, AfDB/OECD, 2003). Improvement in economic management was underlined by significant improvement in public finances. Due to greater result in domestic tax collections and also government's subsequent effort and prudence in government spending, the country's budget achieved its highest ever primary balance in 2001. Ghana has therefore enjoyed a sustained average growth rate of 5.1% per year, or 2.8% per capita yearly, over the last decade also, both are almost a point higher than the Africa average (World Bank, 2009), which "represents one of the few growth success stories in sub-Saharan Africa" (Aryeetey and McKay 2007).

1.2 Statement of the Problem

Until the year 2001, one very important feature culminated the entire Ghanaian economy since independence had been the unceasing deteriorating per capita GDP. Couple with ever increasing population growth rate which stands at approximately 2.3% (GSS, 2017 est.) the growth of GDP has not seen enough improvement and also not strong enough to stand needs of the ever growing population in years ahead. With Ghana's population estimated at 21 million in 2006, had increased a decade after (2016) to approximately 28 million people (Ghana Statistical Service, 2016).

There have been back-to-back GDP growth since 1986, which though ended up in Ghana's attainment of lower middle-income status in 2010. This progressive performance was taken to a complete new level in the year 2011, when Ghana recorded what is believed to be perhaps the highest GDP growth rate level in the world - with a massive 15 percent growth rate in GDP. Subsequently, Ghana continuous to maintain her standing among the 10 fastest growing economies in the world. Though Ghana's high GDP growth rate of 15 % in 2011 (IMF, 2015a), however, could not be sustained in the subsequent years.

Based on the above growth in July 2011, the World Bank upgraded the economic status of Ghana as a Lower Middle-Income (LMI). This came about as after the World Bank in 2010 had revised Ghana's economy upwards, consequently moving Ghana's economy from a lower income status (World Bank, 2012). This suggests therefore that, the country has an average income of $1,006 to $3,975, according to the World Bank assessments. The economic performance, and with Ghana moving from lower income status to Lower Middle Income (LMI) status, one expects that this should have a positive impact on individual economic well-being. It is expected that individual citizens in the economy should have a better standard of living, through job creation, savings, investment, wealth creation, and good healthcare. In spite of significant improvement in the economic growth and performances, a lot of efforts are needed to tackle or work on several macroeconomic indicators such as ; inflation, interest rate, employment and also some others that have not seen a positive impact on the economy for several years. This research tried to find out the impact of Ghana's middle –income on individuals savings level in Ghana.

1.3 Objectives of the Study

The main objective of the study is to examine the impact of economic growth and lower middle-income status of an economy on an individual's savings.

1.4 Research Question

The specific questions which the researcher was interested in the research was to find out

The kind of relationship that exists between Lower Middle-Income status and the Level of Individual levels of savings in Ghana.

1.5 Hypothesis Testing

In order for the researcher to adequately answer and address the research questions above, the researcher developed the following null and alternative hypotheses to provide adequate quantitative targets and data points for additional discussion within the qualitative analysis of the subject matter.

Research Hypothesis Statement

H_0 : There is no statistically significant relationship between Lower Middle-Income status and the Level of Individual Savings in Ghana.

H_A: There is a statistically significant relationship between Lower Middle-Income status and the Level of Individual Savings in Ghana.

2.0 LITERATURE REVIEW

A wide range of literature relating to economic growth and savings were reviewed and discussed below:

2.1 Theoretical Literature Review

Over five decades now, there have been intense debates on which areas of economic growth is suitable for developing economies. Involved in this debate were (Lewis, 1954; Solow, 1956; Chenery and Strout, 1966; Denison, 1967; Myrdal, 1968; Schultz, 1979; Fields, 1980; Romer, 1986; Lucas, 1988; Barro, 1991; and Easterly, 2001). The perceived areas of growth in the various economies where these researches were conducted over the years have extended from surplus labour to physical capital investment and technological change, foreign aid, foreign direct investment (FDI).

It also involved deliberate attempt to invest in human capital, leading to increasing returns from investment in new ideas and research and development. According to Owens (1987) and some other researchers including Sen (1992), Kaufmann, Kray, and Mastruzzi (2006), all have extended their attention on the outcome of institutional factors which include: political instability of the country in question, the role of political freedom within the country, and the voice and accountability on economic growth and development.

The main driving force of macroeconomics is that, fiscal policy is to motivate aggregate demand which would subsequently increase more investment and growth. According to Garfield (1995), economic growth is generated in an economy over the long-run period. This situation could come about when labour force that possesses the incentive to work and produce, and entrepreneurs who also have incentives to invest in capital stock. Fiscal policy essence in economic growth within the last decades has received a lot of research interest. In the same taxation, public investment and other aspects of fiscal policy can equally contribute to economic growth as well as to enduring stagnation and this has been expressed in the context of growth models. Easterly and Rebelo (1993) in their study also pointed out that any economist, when asked to describe the growth performance of any economy is likely to mention fiscal policy as being a very significant determinant.

In relation to savings, Solow's (1956) growth model explained that "developing countries with low capital stock will have access to quite a faster growth rate as compared to developed countries; this becomes possible if these developing countries increase their savings and investment rates". In his work also, Liu Guo (2002), indicated that developing economies have positive savings effects, this in the long-run push up the growth rate especially that of their real gross domestic product (GDP). But in the theoretical framework of these kind policies, this is based on the concept that, a country's high savings rate could increase the amount of commendable capital available which would subsequently push up the aggregate investment and then finally achieve the desired economic development (Stern, 1991). Lin (1992) suggests that any economic development of a country should also depends largely on its ability to mobilize the necessary savings to finance capital formation in order to raise a nation's productivity.

2.2 Middle - Income Economies

Middle-income countries (MICs) are basically nations categorized by a moderate level of economic development and income per capita. These countries fall between low-income countries (LICs) and high-income countries (HICs) on the global economic spectrum. The classification of middle-income countries is based on the World Bank's gross national income (GNI) per capital thresholds. These middle-income countries represent nearly one-third of the total world's gross domestic product and they are therefore a major component of worldwide growth. According to the World Bank, middle-income countries are further divided into two categories: lower-middle-income countries and upper-middle-income countries. Lower-middle-income countries have a GNI per capita ranging from $1,036 to $4,045, while upper-middle-income countries have a GNI per capita ranging from $4,046 to $12,535 (World Bank, 2021).

Middle-income countries face a unique set of challenges. While they have made significant progress in reducing poverty and improving living standards, they still encounter obstacles such as income inequality, limited access to quality education and healthcare, and inadequate infrastructure. These countries often strive to achieve sustainable economic growth, attract foreign investment, and diversify their economies to reduce their

reliance on a few industries or sectors.

One typical example of a middle-income country is Brazil. As of 2021, Brazil is classified as an upper-middle-income country by the World Bank, with a GNI per capita of $9,130 (World Bank, 2021). Despite being one of the largest economies in the world, Brazil continues to face challenges in areas such as income inequality, crime rates, and public infrastructure. The government of Brazil has implemented various social programs and economic reforms to address these issues and promote inclusive growth. Middle-income countries therefore occupy an important position in the global economy. They strive to strike a balance between economic growth and social development while addressing the unique challenges they face. By understanding the characteristics and dynamics of middle-income countries, policymakers and international organizations can develop targeted strategies to support their sustainable development.

2.3 Economic Growth and Development

Economic growth is a fundamental concept in economics that refers to the sustained increase in an economy's production and consumption of goods and services over time. It is a key indicator of a nation's progress and plays a critical role in improving living standards, reducing poverty, and fostering overall development. This note explores the drivers, benefits, and challenges associated with economic growth. Economic growth is driven by various factors, including technological progress, investment in physical and human capital, institutional quality, and favorable macroeconomic policies. Technological advancements enable increased productivity, efficiency, and innovation, leading to the production of more goods and services.

Investments in physical capital, such as infrastructure and machinery, enhance productive capacity and contribute to economic growth. Similarly, investments in human capital through education and training equip individuals with skills and knowledge, fostering productivity and innovation. The benefits of economic growth are manifold. Higher economic growth rates lead to increased output, higher incomes, and improved living standards for individuals. Economic growth creates employment opportunities, reduces unemployment rates, and raises the standard of living by providing better access to education, healthcare, and infrastructure. Moreover, economic growth generates tax revenues, which can be used to finance public goods and services, such as education, healthcare, and social welfare programs, contributing to societal wellbeing.

While economic growth brings numerous benefits, it also poses challenges. Environmental sustainability is a critical concern, as rapid economic growth can lead to increased resource consumption and environmental degradation. Careful management of natural resources and the adoption of sustainable production practices are necessary to ensure long-term environmental viability. Additionally, unequal distribution of wealth and income can emerge as a consequence of economic growth, leading to social disparities and inequalities. Effective policies and measures to address income inequality and promote inclusive growth are crucial to mitigate such challenges.

Several theories and models have been developed to understand and explain economic growth. The neoclassical growth theory, pioneered by Solow (1956), emphasizes the role of technological progress and capital accumulation in driving economic growth. The endogenous growth theory, proposed by Romer (1986), focuses on the importance of knowledge and innovation in sustaining long-term economic growth. These theories provide frameworks for analyzing the determinants and mechanisms behind economic growth and guide policymakers in formulating strategies to foster sustained growth.

2.4 Classical Theories of Economic Development

The very first economic development models were postulated in the early years after World War II, which started between (1939 –1945). These early models tried to revolve around the essence and the usefulness of massive injections of capital in an economy to attain speedy GDP growth rates. It was observed that the two main prominent models are Rostow's stages growth model and the Harrod – Domar model (Todaro and Smith 2009) dominated during this period. These thinkers of the 1950s and early 1960s observed that the route of growth is a sequence of chronological stages in nature. This view was made popular through the work of Rostow (Ingham 1995). Through building on the historical pattern of those of the developed countries, Rostow (1960) pointed out that the evolution from under development to development would pass through five stages, these stages according to him included: the traditional society, the preconditions for take-off, the take-off, the drive to maturity and the period of high mass consumption.

As in Rostow's stages growth model, the same way Harrod –Domar model also laid emphases on the idea that the prime mover of an economy is investments (Ghatak 2003). As a result, every country would, therefore, need capital to generate and stimulate investments. The major approaches of growth and development starting from the stage approach were generally and widely used by most of the developing countries immediately after the years that followed the war. During this period estimated target growth rate and the requisite saving rate were ascertained.

2.5 Basic Neo-Classical (Solow) Model

One other important model which came to be well known as Neo-Classical theory of economic growth was extensively backed by two main economists, T.W. Swan and Robert Solow. These two economists made very essential contributions to economic growth theory in developing what is now known today as the Solow-Swan growth model. This theory emphasized on three factors that impact economic growth: *labour, capital, and technology*, or more specifically, *technological advances*. The output per worker (growth per unit of labour), increases with the output per capita (growth per unit of capital) but at a decreasing rate. This scenario is referred as *diminishing marginal returns*. As a result, there will come a point at which labour and capital can be set to reach an equilibrium state.

Several other empirical results pointed to some problems related to the Solow model. One repercussion of the Solow's model is that, some countries with related technologies and preferences will join to the same stable state output levels. However, this does appear to hold for some groups of economies but not all. Aside this also: De Long (1988), Quah (1989), and Romer (1989c) all of them suggest there is little proof of meeting for a wide and broadly selected countries. This is in particular true for the developing countries or economies; Easterly (1990a) proves that many of such developing countries show little or no proof of continuous economic growth for a longer period.

2.6 Contemporary Theories of Economic Development

The review again touched on contemporary theory of economic development and this covers a range of perspectives and ideas that have evolved in response to the complexities of the global economy. This essay explores some key elements of the contemporary theory of economic development, focusing on the importance of institutions, human capital, innovation, and sustainability.

One important aspect of the contemporary theory of economic development is the recognition of the strategic role played by institutions and governance structures. Institutions, such as legal frameworks, property rights, and regulatory systems, try to shape the incentives for economic activities and influence investment decisions. Institutions that are clear, accountable, and promote the rule of law tend to facilitate economic growth by providing a stable and predictable environment for businesses and investors (Acemoglu & Robinson, 2012).

Beside that is emphasis on human capital and skills development. The contemporary theory recognizes that education and training are vital for economic growth and development. Investments in human capital, such as improving access to quality education and healthcare, not only enhance individual capabilities but also contribute to productivity gains and technological progress at the societal level. A skilled and educated workforce is crucial for innovation, entrepreneurship, and the adoption of new technologies (Heckman & Kautz, 2012).

Innovation and technological progress are also central drivers of economic development in the contemporary theory economies. The ability to advance and adopt new technologies allows countries to increase productivity, improve efficiency, and create new industries and job opportunities. Policies that support research and development, promote entrepreneurship, and foster collaboration between academia, industry, and government can stimulate innovation ecosystems and enhance a country's competitiveness in the global economy (Aghion & Howitt, 2009).

Sustainability and Inclusive Growth: The contemporary theory of economic development also underscores the importance of sustainability and inclusive growth. It recognizes that economic development must be pursued in a manner that preserves natural resources, mitigates environmental risks, and ensures social inclusion. Sustainable development goals, such as reducing poverty, addressing inequality, promoting gender equality, and combating climate change, are integrated into the development agenda. Emphasizing the social and environmental dimensions alongside economic growth can lead to more equitable and resilient societies (Stiglitz et al., 2018).

2.7 Government Spending, Taxation, and Economic Growth

Economics growth refers to the increase in the production of goods and services within an economy over a specific period of time. It is a crucial indicator of a nation's overall economic health and development. One important aspect that affects economic growth is government spending, which refers to the amount of money the government invests in various sectors of the economy. Of course development economics has also been interested in the impact of government spending, taxation, and related distortions in developing countries. An apparent policy implication pointed out by Jones and Manuelli (1990a), Rebelo (1987), and Romer (1986) is that capital taxation (or subsidization) may have considerable growth effects in the endogenous growth models whereas it would only have level effects in the Solow model. King and Rebelo (1990) parameterize a model and show that reasonably modest levels of taxation may be sufficient to totally stop growth. Rebelo (1990) discusses the importance of international capital markets for these results as differences in returns caused by taxation and may cause capital flight which would allow GNP to grow even if GDP did not. According to Barro (1990), he includes productive government spending in a model of endogenous growth.

And in this model of his growth would be increasing for low levels of government expenditure (and taxation) and then starts decreasing when the government becomes too big relative to technical efficiency. This analysis also tries to indicate that diverse government expenditure has conflicting impacts on growth. This model again suggests that the relative efficiency of different governments will influence their relative growth rates. Easterly (1990b) in his presentation of a model in which distortions between diverse types of capital causes growth effects which may be related in a nonlinear way to policy variables. In the Jones and Manuelli (1990) taxation may have either growth or level effects depending on the relative size of the tax distortion.

Reynolds (1983) argues that a major cause of country variations in growth is the effectiveness of governments in mobilizing resources which is important in developing countries which also have narrower tax bases. It would be important for policymaker and to understand the relative importance of these effects for long-term growth. Again, certain factors such as political instability and property rights may have effects similar to capital taxation by increasing the uncertainty associated with investment decisions. De Gregorio (1992) also ascertains a negative relationship between the two variables, which is government spending and economic growth. A number of those studies that focus on one fiscal variable such as government size (Kormendi and Meguire, 1985; Landau, 1986; Barro, 1991; and Engen and Skinner, 1992) find an obvious negative impact of the share of government spending on output growth rates, giving support to the impression that smaller governments are associated with faster growth rates.

According to King and Rebelo (1990), the outcome of taxation in small economies with capital mobility is uncertain. Substantially, it can affect either positively or negatively long-run growth rates. Easterly and Rebelo (1993), findings indicate that public infrastructure and growth are directly related, but the effects of taxation are not easily determined to owe to tax effect isolation problems.

The authors are with a strong view that, this is a plausible reason for the inconclusiveness of the empirical work so far. In specific relation to the case of Latin America related studies, several of them reveal a positive relation between infrastructure investment and growth, by introducing it into the model as another factor input (Calderon, Easterly, and Serven (2002a, 2002b). However, others demonstrate an apparent negative association between government spending and output growth (De Gregorio, 1992). Also from a comparative approach, De Gregorio and Lee (2003) examine the experience of growth performance and macroeconomic adjustment of Latin America and East Asia from 1970 to 2000, coming up with a negative relationship between government spending and economic growth (Global Development Horizon 2013).

2.8 Neoclassical Theory of Savings and Investment

The neoclassical theory of savings and investment is a fundamental concept in economics that explores the relationship between these two variables within an economy. This theory is based on the principles of rationality, market equilibrium, and optimization, and it provides insights into the determinants and implications of savings and investment decisions. The neoclassical economics is the name given to an economic theory developed or propounded getting to the later part of the 19th century and also during the early part of the 20th Century in Europe. Those who contributed to this theory included: Léon Walras (1834-1910), Alfred Marshall (1842-1924) and Vilfredo Pareto (1848-1923).

The subject that neoclassical economists were trying to deal with centered on distribution of power between industrialists and workers with the main aim of making sure of right savings and investment in an economy. Neoclassical philosophy of savings and investment become issue of very much concern nowadays to many people globally. The most fundamental questions people encounter are: what proportion of their income that should be saved for the future? What kind of risks should people insure against? How should people invest what they have saved?

According to the neoclassical theory, individuals and households make decisions about their savings and consumption based on rational economic behaviour. They aim to optimize their utility or satisfaction by allocating their income between present consumption and future savings. The theory posits that individuals save a portion of their income when the expected benefits of future consumption, such as interest or return on investment, outweigh the benefits of immediate consumption.

This concept of neoclassical savings and investment, assumed that because consumption is a function of disposable (income and savings is income not spent) while investment is the income actually spent on goods and services in an economy. This suggests that both savings and investment could be assumed a function of disposable income. This theory states that savings determine investment and is concerned mostly with market equilibrium and economic growth at full employment instead of with the under-employment of resources. Private Investment has been identified as the major contributor to economic growth in both developed and developing economies. Simply because as investment increases, new technology is adopted employment opportunities are created, incomes grow, and these ultimately lead to economic growth (Matwang'A Lusambili, 2000). In the view of Kweka and Morrissey (1999), government activity possibly will directly or indirectly boost total output through contact with the private sector in the economy.

2.9 Promotion of Savings for Economic Growth

The relationship between savings and economic growth has long been a subject of interest and debate in the field of economics. Savings, defined as the portion of income not consumed but set aside for future use, plays a crucial role in stimulating investment, capital accumulation, and ultimately, economic growth. This note explores the significance of savings in promoting economic growth and highlights the key mechanisms through which savings contribute to overall economic development. Savings serve as a vital source of funds for investment, which is a critical driver of economic growth. When individuals save a portion of their income, these savings can be channeled into various investment avenues such as businesses, infrastructure projects, and research and development. Increased investment, in turn, leads to the expansion of productive capacity, enhanced productivity, and the creation of new employment opportunities.

Empirical studies have provided evidence supporting the positive association between savings and economic growth. For example, research by Barro (1991) using cross-country data found that higher levels of savings are positively correlated with economic growth rates. Similarly, Easterly and Levine (2001) conducted a study across countries and found that increases in domestic savings rates lead to higher rates of economic growth. It is however important to note that the relationship between savings and economic growth is not a simplistic one. The effectiveness of savings in promoting economic growth depends on various factors, including the quality of institutions, the efficiency of financial intermediation, and the investment climate within a country. Sound institutions that protect property rights, enforce contracts, and provide a stable business environment are essential for savings to translate into productive investment and sustainable economic growth.

The theory of endogenous growth recommends that, there is the need to critically look at a high investment and savings rate. Since investment and savings have very strong positive relationship with the economic growth rate as indicated by (Agrawal, 2001). In addition, Wondwesen (2011) reinforced the idea by stressing that, Keynesian theory assists investment to perform a significant role both as a part of combined demand, which according to Keynesian serves as a vehicle of the formation of productive capacity on the supply side and in deciding on medium-run growth rates. In this regard, it is clear that investment and savings are thus the fundamental demands for a fast economic growth and development. With this, savings and investment are seen and considered as two macroeconomic variables, which helps in attaining price stability and encouraging employment prospects. By so doing contributing to viable economic growth (Shimelis, 2014).

Savings therefore plays a critical role in promoting economic growth. In doing so it provides the necessary funds for investment and capital accumulation. Again savings contribute to the expansion of productive capacity, technological progress, and improved productivity. However, the effectiveness of savings in fostering economic growth is contingent upon supportive institutions, efficient financial intermediation, and the effective allocation of savings towards productive investment.

3.0 METHODOLOGY

3.1 Research Design

This research adopted a methodology that highlights the methods of primary data collection; sampling techniques, research design; study variables and units of analysis; data sources used, tools for data collection; and finally how data were analysed. Again, the study used a mixed-method approached: quantitative and qualitative methods. In the quantitative research approach, a statistical analysis was used as content analysis findings, which was applied to assess the associations between Economic Growth and Middle Income of Individual Ghanaians.

3.2 Population and Sampling Procedures

In research, selecting or choosing an actual data source is an essential element in conducting the qualitative and quantitative study. This kind of processing can be termed sampling. Sampling is essential to initiate the process of selecting genuine data sources from a bigger set of options (Morgan 2008). This kind of process involves the following processes. It involves defining the full set of possible data sources – which is generally termed the population, and entails selecting an exact or precise sample of data sources from that population. In the study also, sampling was done to describe the possible data sources and in so doing selecting the particular sample population as a data source.

3.2.1 Target and Accessible Population

The population for the research targeted twenty four (24) districts in the Volta Region of Ghana. Individuals who are 18 years of age and above, who are employed either in the formal and informal sectors of the economy. According to Porter (1999), he indicates that when an excellent target population that emphasis on a proposed phenomenological study, descriptive, which is also necessary to project the size of the population that is both suitable to contribute to and accessible to the investigator. In this research, however, Volta Region, which is made of twenty-four (24), districts being the total target population; out of this number eight (8) districts have been chosen for the data collection process. According to Porter (1999), he indicates that this estimate of the

accessible population and has become bases for judging the feasibility of the phenomenological study, and establishes a demographic framework for the analysis. In the study, the accessible population is eight (8) districts.

3.2.2 Sample and Sampling Techniques

The random sample is believed to refined of arrangement when comes to probability sampling in a research process. Yates (2008, p. 27) believed that an unbiased or impartial random selection of respondent is necessary so that in the long - run sample selected represents the population of the study. However, this does not give assurance that a specific sample is an impeccable illustration by population. The random sample simply permits an individual to draw outwardly valid assumptions about the whole population. In addition, it is believed to be more difficult to recognise each individual member of the chosen population, so in this case the pool of accessible subjects turns out to be biased.

This research also employed sampling techniques to choose a various representative subset of a given population to obtain a sample for the study (Taylor, 2015). The eight (8) districts out of the total of twenty (24) constituted the sample for the study. These districts included: Ho Municipal (25), Hohoe Municipal (20), Kpando Municipal (15), Keta Municipal (15), Akatsi South District (8), and South – Tongu (7) District, Ketu – South (10) and Ketu North Districts (8). Both formal and informal active participants are selected for interview. Respondents were purposely sampled since they hold the information the researcher is interested in for the study.

3.3 Data Management and Analysis Strategies

In order to maintain effective data management in this research, the study used and followed some accepted guide which included. The guide provided some indications and the of kind of data and statistical software that would be used for a particular result.

Primary Data Collection, this kind of data was collected from the field through Semi-structured questionnaires administered to respondents to elicit appropriate information for the research. This questionnaire will be administered in eight (8) districts of the Volta Region which the researcher viewed as populous with varied economic and social backgrounds helped elicit a varied response from the interviewees.

Secondary Data Collection: this data gathered from various sources of socio-economic and financial indicators constituted from official databases such as International Monetary Fund (IMF), and World Economic Outlook, Eurostat, Data Bank African Development Bank from 1990 to 2015.

Econometric Tools: Multiple Regressions Analysis, Co-integration analysis, VAR Analysis, t-tests, Tables and Graphs and any other valid Statistical or Econometric tools.

Statistical Packages: SPSS, MINITAB, and EXCEL are statistical packages that were be employed in the analysis.

Analysis of Data: Data analysis methods are discussed below; A one-way chi-square analysis (χ^2) test was applied to analyze the connection between lower middle income status and savings levels of individuals in Ghana. Descriptive statistics was used to analyses the Savings Behaviour in the Volta region. A one-way chi square analysis (χ^2) test was also applied to analyze the association between middle income and level of savings. One-sample Kolmogorov Smirnow - test which was used to create the relationship between lower middle income position or status of the country and the level of individual savings in Ghana. Graphs were also used to illustrate respondents who are economically active and ready to work to get income.

4.0 RESULT AND DISCUSSIONS

The study results touched on findings and the discussions on the impact of economic growth and on private savings in middle –income individuals.

4.1 Findings of the Research

The research presents the findings and discussions of the outcomes of the study. It also contains a description of data obtained from the various instruments used, discussion as well as various diagrams, graphs, and tables were used to explain the data. The variables considered in the descriptive statistics are rated or scored over a hundred percent (100%). Frequency distribution was used to analyze the demographic information of the respondents. Simple frequency distribution and the respective percentages of the results are presented. Chi-square was also used to test for significance and association or relationship between these variables.

4.2 Demographic Analysis of Data

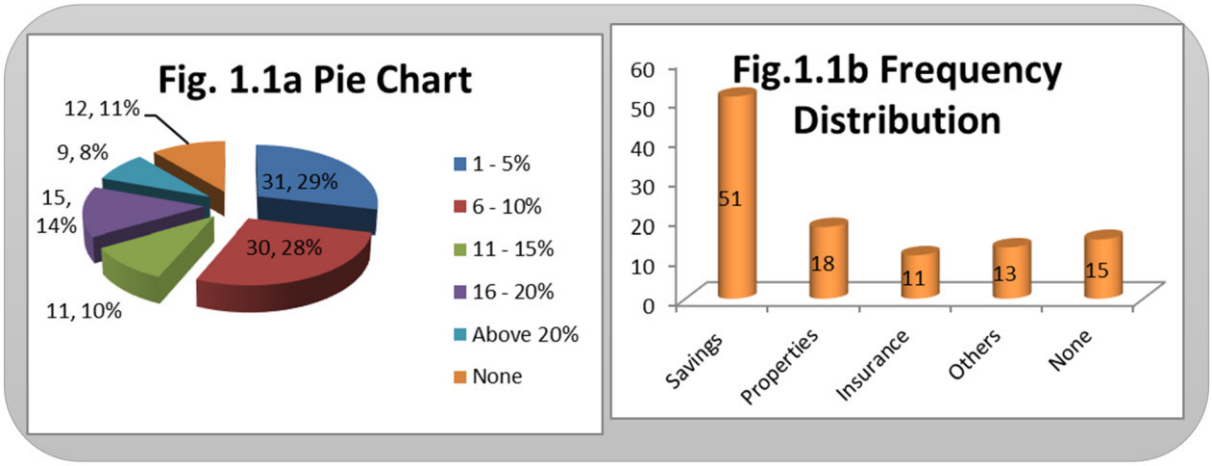
A total number of 108 people responded to the questionnaire. The results showed that 67 (62%) of the respondents were males and 41(38%) were females. The results also indicated that, 13 (12%) of the respondents had primary and Junior High School (JHS) education, 22 (20.4%) had Senior High School (SHS) education, 65 (60.2%) had Diploma, HND and First Degree education, 5 (4.6%) had a Master Degree education, 5 (4.6%), 2(1.9%) had no formal education and 1 (0.9%). From the data, it was indicated that 56(51.9%) were married, 41 (38.0%) were single, 9(8.3%) were divorced 1(0.9%) was widowed and 1(0.9%) did not respond.

The outcome again shows that 42(38.9%) of the results have no dependents, 44(40.7%) of respondents had 1 to 3 dependents, 16(45%) had 4 to 6 dependents, 4(3.7%) had 7 to 9 dependents, 1(0.9%) had 10 to 12 dependents and 1(0.9%) represented no response. The result also indicates that 95(88%) of the respondents are Ghanaians against 5(46%) who were not Ghanaians, but eight (8) of the respondents did not indicate their nationality.

The result also indicates that 22(20.4%) of the respondents were within the ages of 16 – 25years, 53(49.1%) were within the ages of 26 – 35years, 16 (14.8%) were within the ages of 36 – 45 years, 12 (11.1%) were within the 46 – 55 years, 4(3.7%) were within the ages 56 years above, one respondent did not indicate his/her age. From the results, it was observed that 72(66.7%) were in the formal sector and 36(33.4) were employed in the informal sector. In relation to employment, the results also indicate that 57(52.8%) were employed in the government sector whiles 41(47.3%) were employed in the private sector. From the results, it was observed that 29(26.9%) were in commerce, 15(13.9) were in the agricultural sector, 3(2.8%) were in the manufacturing sector, 46(42.6%) were in the service sector and 15 (13.9%) are in other employment engagements. It was also observed that, 53(49.1) have up to five (5) years working experiences, 36(33.3%) have from six (6) to ten (10) years working experiences, 3(2.8%) had eleven (11) to fifteen (15) years working experience, 7(6.5%) had sixteen(16) to twenty (20) years working experiences, 9 (8.3%) had twenty years and above working experiences.

4.3 Findings and Discussions

The figure below illustrate the descriptive statistics of the variables under discussion.



The figure 1.1b above represents a frequency distribution of the levels of individual savings, and some other factors. The figures above indicates that 74(58.5%) of respondents saved whiles 29(26.8%) of respondents saved do not save. 16(14.9%) of respondents rarely saved. The results indicated also that, majority of respondents (68.5%) saved. With this, one can therefore infer into the Ghanaian economy that, greater proportion of Ghanaian in the Volta Region saved some proportion of their income. The results also indicated that, 36(33.3%) saved one three times annually, 9(8.3%) save 10 - 9 times in the year, 18 (16.7%) save four to six times in the year, 9 (8.3%) save ten to twelve times in the year, 25(23.1%) save eleven to twelve times in the year. At this stage, one can observe that the result showed good savings behavior of respondents. This can be observed at 36 (33.3%) individuals who save one to three times in the year.

In this results, it indicates that the percentage of income of individuals that are saved. From the figure, it can be seen that 31 (28.7%), save 1 – 5% of their income, 30(27.8%) save 6 – 10% of their monthly income, 11(10.2%) saved 11 – 15% of their income, 15(13.9%) saved 16 to 20% of their income, 9(8.3%) saved 20% and above of their income and 12(12.1%) do not save.

The figure also shows the kinds of savings individuals make. Form the results, it was observed that 51(47.2%) money with the banking institutions in the region, 18(16.7%) save for property development, 11(10.2%) save with insurance companies, 13(12%) save with several other sectors of the Ghanaian economy and (13.9%) do not save in any way.

Table 1. The Descriptive Statistics on Savings Behaviour of Respondents

Statements	Mean	Std. Deviation	Variance
I save for retirement	3.57	1.313	1.723
I save for future contingencies	3.56	1.362	1.856
I save for payment of property	3.38	1.117	1.247
I save for education (Self and dependents)	3.61	1.274	1.623
My minimum savings monthly is GH¢ 10.00 - GH¢100	3.41	1.428	2.038
My maximum monthly savings is GH¢ 101.00 above	3.47	1.397	1.952
The level of lending rate affects my saving both positively and negatively	3.55	1.163	1.353
The rate of inflation or prices affects my savings	3.95	2.810	7.895
The current macroeconomic environment is good for savings	3.08	1.319	1.741

Table 1 above, represents the mean scores, standard deviation, and variance on the savings behaviour of respondents. The mean values in the tables above represent the average scores of measuring individual savings behavior amidst Ghana's middles income status. The values represent the average level of individual respondents. It can be identified from the table that, the mean scores which are 3.0 and above (3.57, 3.56, 3.38, 3.61, 3.41, 3.47, 3.55, 3.95, and 3.08) indicate a strong agreement to all the statements above. Generally, the outcome indicates that the averagely, all respondents strongly agree to the assertions or statements above. It further suggests that the middle-income status of Ghana is having a positive impact on Ghanaian economy since it has increased individual savings. From the results, more people are able to save a minimum savings of GH¢ 10.00 - GH¢100 (3.41 = strongly agree).

Results also indicate that, the rate of lending rate and inflation in the economy affects the size of savings of individuals (3.47= strongly agree, 3.55= strongly disagree). The results also again tell us that the current macroeconomic environment in Ghana is good for savings. The means of variability was also used to indicate the spread of score. Both the variance and standard deviation were used to measure how spread the various scores are. The variance and standard deviation measure how far each of the scores is from the mean or deviates from the mean. Adding up all variances may result in having deviation scores equal to zero.

The standard deviation is, therefore, a risk determining the factor of the observations. From the table 1.1 it can be observed that 1.313 represents the risk of not I saving for retirement, 1.362 represents the risk of not saving for future contingencies, 1.117 represents the risk of not saving for payment of property, 1.274 represents the risk of not saving for education (self and dependents), 1.428 represents the risk of not saving a minimum of GH¢ 10.00 - GH¢100 on monthly basis, 1.397 represents the risk of not saving a maximum of GH¢ 101.00 and above, 1.163 represents the risk of not saving due to lending rate, 2.810 represents the risk of not saving due to the rate of inflation and prices of goods and services and 1.319 represents the risk of not saving due to the current macroeconomic environment of the country.

The standard deviation, which measures the risk of not saving for any reasons, may be largely dependent on the interest rates of savings and investments. Generally, it is believed that people may not save when interest rates are very low and may save when interest rates are very high. They may not also invest when the rate of returns are very high because for most people, the associate very high rate of returns in an investment as a very risky. They therefore associate low level of rate of returns as less risky investment. The savings and investments behaviour, and risk aversion of respondents is in tandem with James Tobin's Proposition Portfolio Balance Theory on Risk Aversion.

Table 2. The Relationship between Middle Income and Level of Savings

Question ***Ho: Hypothesis***	**Response in frequency**			χ^2 *df* (2)	**Interpretation**
	Agree (%)	**Neutral (%)**	**Disagree (%)**		
I save for retirement	30(27.7%)	6(5.6%)	72(66.7%)	62.00	Significant
I save for future contingencies	30(27.8%)	7(6.5%)	71(72.9%)	58.43	Significant
I save for payment of property(Mortgage, car, land)	32(29.6%)	12(11.1%)	64(59.2%)	38.21	Significant
I save for education (Self and dependents).	25(23.2%)	9(8.3%)	74(68.5%)	63.72	Significant
My minimum savings monthly is GH¢ 10.00 - GH¢100	32(29.6%)	13(12%)	63(58.4%)	35.38	Significant
My maximum monthly savings is GH¢ 101.00 above	30(27.7%)	16(14%)	62(57.5%)	30.89	Significant
The level of lending rate affects my saving both positively and negatively.	24(22.3%)	17(15.7%)	61(62%)	31.33	Significant
The rate of inflation or prices affects my savings	24(22.2%)	13(12%)	71(65.8%)	52.72	Significant
The current macroeconomic environment is good for savings	44(40.8%)	13(12%)	51(47%)	22.72	Significant

Source: Field data, January 2017 $p < 0.05$

The research expected equal numbers of respondents (36) to answer to each category (Agree, undecided, and disagree). However, observed frequencies were significantly different from expectations for all questions assessed *(I save for retirement,* χ^2 (2, N = 108) = 62.00, $p < 0.05$; *I save for future contingencies,* χ^2 (2, N = 108) = 58.43, $p < 0.05$; *I save for payment of property(Mortgage, car, land)* χ^2 (2, N = 108) = 38.21, $p < 0.05$; *I save for education (Self and dependents)* χ^2 (2, N = 108) = 63.72, $p < 0.05$; *My minimum savings monthly is GH¢ 10.00 - GH¢100,* χ^2 (2, N = 108) = 35.38, $p < 0.05$; *My maximum monthly savings is GH¢ 101.00 above* χ^2 (2, N = 108) = 30.89, $p < 0.05$; *The level of lending rate affects my saving both positively and also negatively* χ^2 (2, N = 108) = 31.33, $p < 0.05$; *The inflation rate or level of prices affects my savings* χ^2 (2, N = 108) = 52.72, $p < 0.05$; *The current macroeconomic environment is good for savings* χ^2 (2, N = 108) = 22.72, $p < 0.05$.

The analysis above, it can be suggested that, there exists a statistically significant relationship between middle-income country (Ghana) and the level or the size of savings of individuals in the economy. With a $p < 0.05$, all chi-square values χ^2 (2, N = 108) was greater than the significance level. It is observed that, there exist a relationship between middle- income country and level of savings of individuals.

In addition, the above analysis also suggested that there exists a statistically significant relationship between middle-income country (Ghana) and the level of savings of individuals. With a $p < 0.05$, all chi-square values χ^2 (2, N = 108) was greater than the level of significance. It can be suggested that there exist a relationship between middle- income country and level of savings of individuals.

4.4 Using Quantitative Analysis

The research again tried to analyse the secondary data collected intended to establish the relationships between economic growth and saving variable. The data for this paper were obtained from the World Bank's World Development Indicators (2017). The time series data on the Ghanaian economy covers the period 1990 to 2015.

The variables included in this model are indicators which include; Net exports (EXP) as a percentage of GDP; Foreign Direct Investment (FDI) as percentages of GDP; Also classified under outward orientation, Foreign Direct Investment (FDI) represents how interested foreign companies are in that particular country's companies and markets. If levels of FDI are high, this could be because foreign companies are enthusiastically interested in investing in these countries.

Government Spending or Expenditure (GNS); Government Spending (SPEND) as percentages of GDP. The structuralist theory would suggest that both of these variables have positive effects on GDP as they involve increased government intervention and economic stimulation. Inflation Rate (INF); Inflation rate (INF) as a percentage a GDP. This indicator represents the macroeconomic stability of a country. High inflation rates in most cases signal a financial or economic problem with the economy. A high inflation pushes interest rates up leading to falling in investment hence reducing GDP.

Government Debt (GOV DEBT). This indicator or variable suggests also the macroeconomic stability of a country. A high a levels of government debt usually gives a signal of an economic problem with the country. Therefore government debt has negative correlations with GDP. Gross National Income (GNI); Gross National Growth in annual percentages in U.S. dollars. Is used as the dependent variable in this research and in the model.

Population Growth (POG); Aggregate savings is affected by the age distribution of the population if the share of the inactive or dependent population is high, the savings ratio will be low. In this research use the age dependency ratio (*DEPEND*), the share of dependent age population (aged below 15 or over 64 years) to the working age population (aged 15 to 64 years), as a reasonable proxy to capture this effect. Other proxy measures of this effect, such as the share in a population of the labour force or a number of employed, suffer from even more serious problems due to the lack of adequate data on those self-employed and those working in the informal sectors, especially in the rural areas. The expected sign of the coefficient of DEPEND is negative (Lahiri 1989; Bosworth1993; Loayza 2000).

4.5. General Trend Module Analysis

Trend analysis fits a general trend model to time series data and provides forecasts.

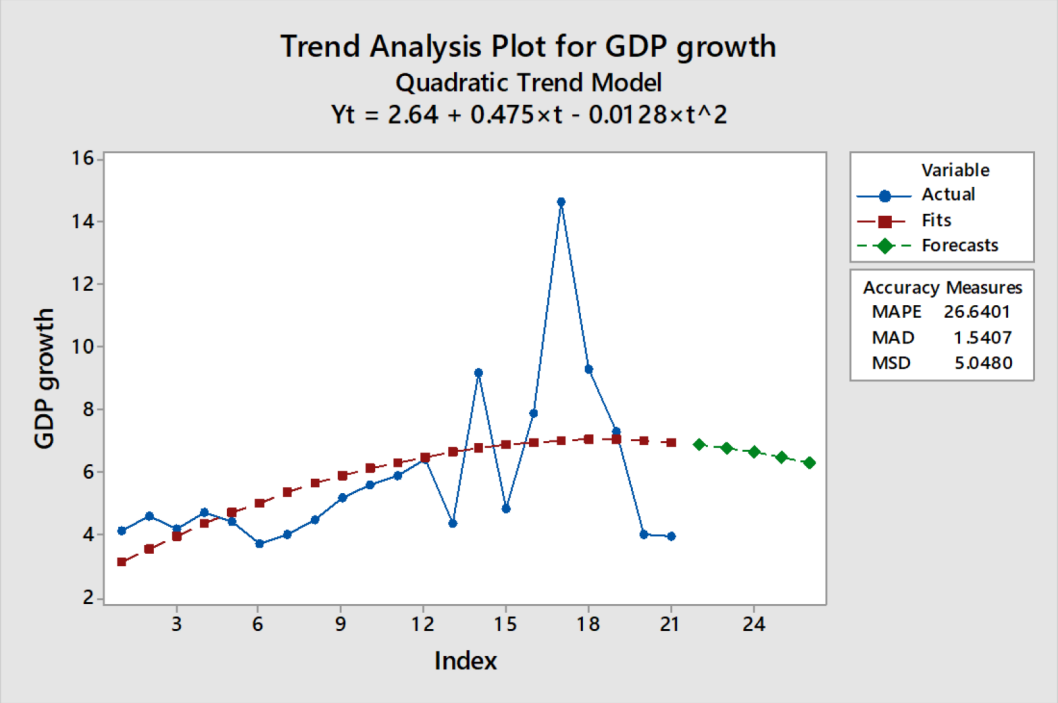


Figure 2. Time Series analysis of variables

Figure 2, indicates the trend plot that shows the original data of GDP growth, the fitted trend line, and forecasts. From the trend analysis, the figure for GDP growth for the following five years was determined. The green dotted line represents the GDP value forecasted into the next five years. From the Minitab quadratic trend analysis, it was observed that 6.88, 6.7990, 6.65, 6.49860, 6.319 were extrapolated in the next five years as GDP Growth respectively. Minitab computes the three main measures of accuracy namely; Measures of Accuracy to help you determine the accuracy of the fitted values: MAPE (Mean Absolute Percentage Error, measures the accuracy of fitted time series values. It expresses accuracy as a percentage) = 26.6401, MAD (which stands for Mean Absolute Deviation, measures the accuracy of fitted time series values.) = 1.540, and MSD (Mean Absolute Deviation, measures the accuracy of fitted time series values) = 5.0480. The quadratic equation, Economic Growth = 2.64 + 0.475×t - 0.0128×t^2 represents the equation of the curvature of economic growth. 2.6 represents the value of economic growth of all parameters if "t" is equal to zero. 0.475 represents the linear coefficient or the slope or gradient of the curve.

The coefficient 0.00128 represents the quadratic coefficient of the equation. Fitted Trend Equation for economic growth: ***Economic Growth = 2.64 + 0.475×t - 0.0128×t^2***

Trend Analysis for Gross National Income

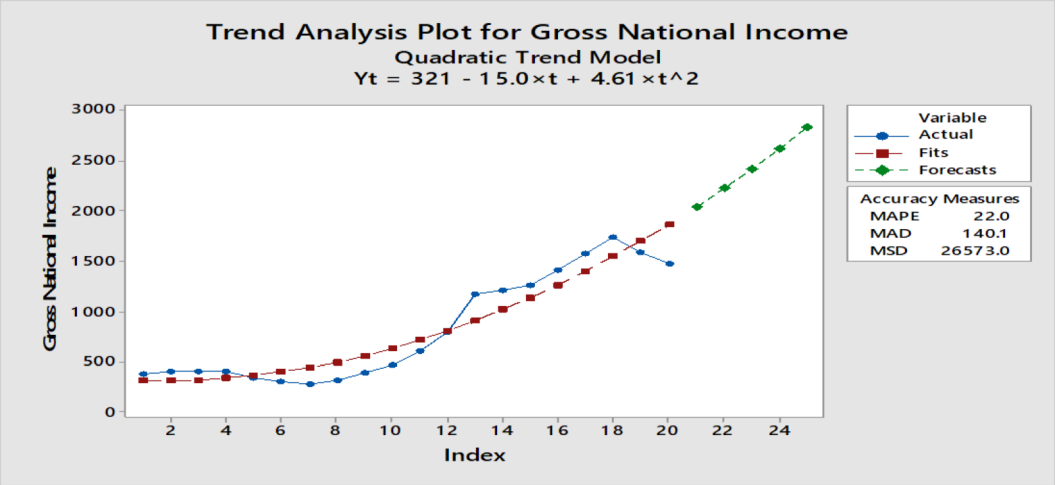


Figure 3. Trend Analysis for Gross National Income

The Minitab quadratic trend analysis above in figure 3, it was observed that 2041.63, 2225.08, 2417.75, 2619.65, 2830.77 were extrapolated in the next five years as gross national income respectively. Minitab computes the three main measures of accuracy namely; Measures of Accuracy to help you determine the accuracy of the fitted values: Mean Absolute Percentage Error (MAPE), measures the accuracy of fitted time series values. It expresses accuracy as a percentage) = 22.0, MAD (which stands for Mean Absolute Deviation, measures the accuracy of fitted time series values.) = 140.1 and MSD (Mean Absolute Deviation, measures the accuracy of fitted time series values) = 26573.0. The quadratic equation, gross national income = 321 - 15.0×t + 4.61×t^2, represents the equation of the curvature of economic growth. 321 represents the constant value of long-term external debt if all parameters are equal to zero. – 15.0 represents the linear coefficient or the slope or gradient of the curve. The coefficient + 4.61 represent the quadratic coefficient of the equation:
Fitted Trend Equation*:* Gross national income = 321 - 15.0×t + 4.61×t^2

4.6 Time Series Data Analysis

Secondary data analysis was done using various time series, trend analysis, Analysis of variance, regression analysis. Below are the time series data of some selected macroeconomic variables used in accessing the middle-income status of the Ghanaian economy. These macroeconomics variables include General Expenditure, population and savings. For this sake of this work focus would be on savings component of the figure below.

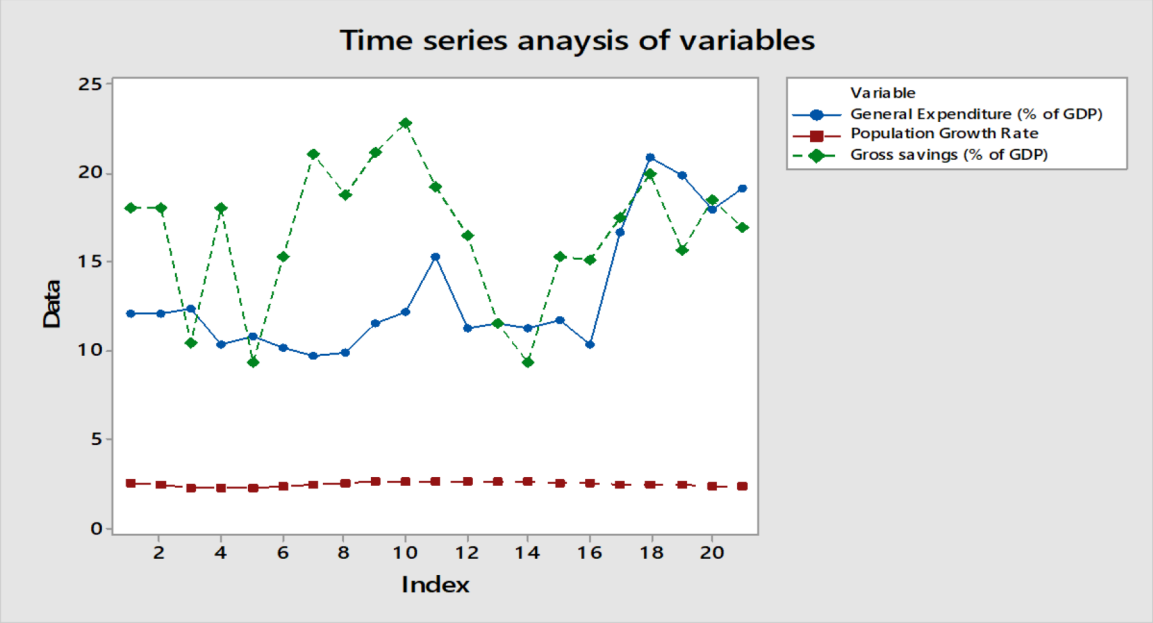


Figure 4: Time series analysis of variables

The figure 4 above, represents the time series analysis of savings(% of GDP) in the macro economy. In 1995, the gross savings was 18.093, 1996 (18.093), 1997 (10.411), 1998 (18.033), 1999 (9.362), 2000 (15.265), 2001 (21.093), 2002 (18.754), 2003 (21.157), 2004 (22.872), 2005 (19.227), 2006 (16.49), 2007 (11.49), 2008

(9.343), 2009 (15.297), 2010 (15.131), 2011 (17.474), 2012 (19.992), 2013 (15.688), 2014 (18.489), 2015(16.985). Gross Domestic Saving is GDP less final consumption expenditure. Expressed as a percentage of GDP, Gross Domestic Saving consists of savings of the household sector, private corporate sector, and public sector. It is worth noting that, households with the same features such as income may have different saving decisions.

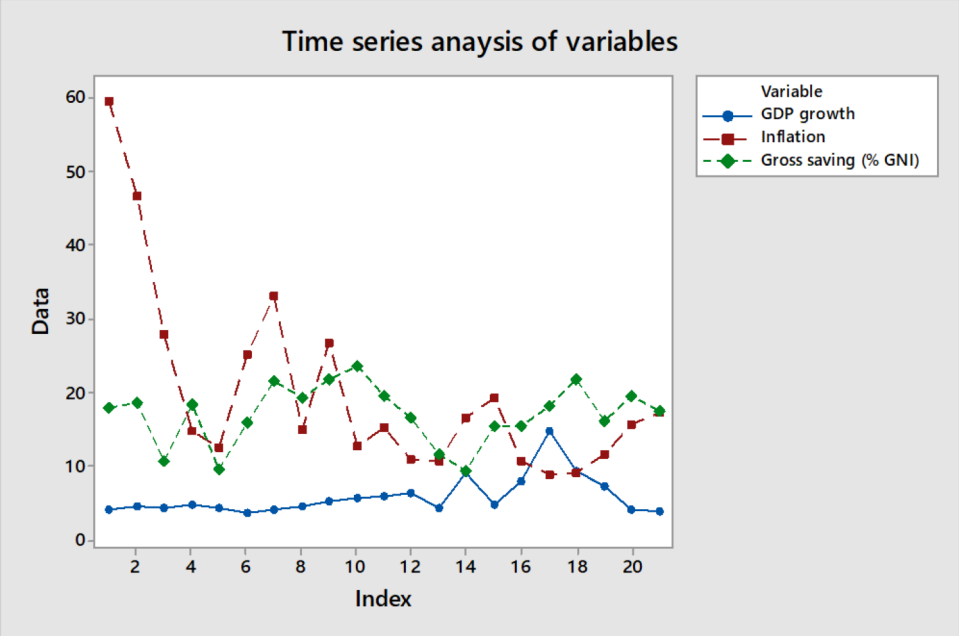


Figure 5. Time Series (Trend analysis of macroeconomic some variables)

The figure 5, above, represents the time series data of GDP growth, Inflation, and Gross savings (% of GNI) from year 1990 to 2015. In the year 1990, GDP growth was 3.329, 1991 (5.282), 1992 (3.879), 1993 (4.85), 1994 (3.34), 1995 (4.112), 1996 (4.602), 1997 (4.196), 1998 (4.7), 1999 (4.4), 2000 (3.7), 2001 (4.0), 2002 (4.5), 2003 (5.2), 2004 (5.6), 2005 (5.9), 2006 (6.4), 2007 (4.347), 2008 (9.15), 2009 (4.846), 2010 (7.9), 2011 (14.046), 2012 (9.293), 2013 (7.313), 2014 (3.986), 2015(3.916).

The fundamental objective of the traditional theory of savings was that by increasing saving would result in accelerating economic growth. Since an increase in income raises savings, resulting in further rise in investment (Verma, 2007). The numerous literature on savings, investment, and economic growth were all focused on both developed and developing countries.

4.7 Unit Root Test using Augmented Dickey-Fuller test

Further test was conducted using unit root to test for stationary in a time series. The time series data used for our regression analysis is needed to test for stationary or non - stationary.

Statement of Hypothesis:

H_0: Output has Unit root, H_1: Output has no unit root

Table 3. Showing the Augmented Dickey-Fuller test for unit root

GDP growth, lags(0)

Dickey-Fuller test for unit root Number of obs = 25

Interpolated Dickey-Fuller

Test Statistic		1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-2.898	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z (t) = 0.0456

Data Source: world Bank economic Indicators, 2017

Interpretation

The table 3 above represents a unit root test for the secondary data output. The results indicates a critical value of 1% (0.01), the Z (t) = -2.898, 5% Critical Z (t) = -3.750, and 10% Critical Value, Z (t) = -3.000. A Dickey-Fuller test for unit root was conducted to test for stationarity and non-stationarity. From the results, the Dickey-Fuller test (MacKinnon approximate), P-value for Z (t) = 0.0456. The P-value for Z (t) = 0.0456 > 0.05, since the

P-value for Z (t) is less than the level of significance of 0.05, we fail to reject the null hypothesis. The dependent variable (Gross Domestic Value) used in the regression analysis has a unit root, thus the existence of unit root in the variable (Gross Domestic Value) means that the time series data is said to follow a random walk.

4.8 Regression Analysis Using Secondary Data

This section aims at establishing the relationship between economic growth and level of savings of middle-income of individuals in Ghana. In order to achieve this, a null and alternate hypothesis were stated to enable the researcher test for significance so that the researcher may suggest an interpretation, and give findings and conclusion on the study. The hypothesis is stated as;

Null Hypothesis (H_0) = There is no significant relationship between economic growth and the level of saving of middle - income individuals of Ghana.

Alternate Hypothesis (H_1) = There is a significant relationship between economic growth and savings level of middle - income individuals of Ghana.

Table 4 Model Summary

Model	R	R - Square	Adjusted R Square	Std. The error of the Estimate	Durbin-Watson
	0.794869	0.631816	0.342529	3.562301	1.072

Data Source: World Bank Economic Indicators on Ghana, 2017

(a). Predictors: (Constant), External Debt, Population Growth, Inflation (Consumer Price Index), General Government Expenditure, Gross Domestic Product (GDP) Growth, Export, Human Capital, Policy Rate, Employment, Foreign Direct Invest.

4.8.1 Dependent Variable: Gross Saving (% of GNI)

Interpretation

In the Model Summary, R-squared explains the statistical measure of how close the data are to the fitted regression line. It is also refers to as the coefficient of determination, or the coefficient of multiple determinations for multiple regressions. A 0% indicates that the model explains none of the variability of the response data around it. Referring to the above results, the coefficient of determination R – square (R^2) is 0.7949, which suggests that 79.49.% of the variations in Gross National Savings is presently explained by the variations in the independent variables. This figure establishes that the model obtained is somewhat valid. About (100 - 79.48) = 20.52% of the variations in the Gross National Savings cannot be explained by the variables under consideration. This percentage could be as a result of some other factors that have not been included in this research. It is therefore suggests, that these other factors could be investigated into so that the management of the macro economy can have an all-round formula in determining the level of Gross National Savings in the economy.

Table 5 ANOVA

Model	Sum of Squares	df	Mean of Square	F	Sig.
Regression	304.8708	11	27.7155	2.1840	0.0852
Residual	177.6599	14	12.6899		
Total	482. 5307	25			

Source: World Bank Economic Indicators of Ghana, 2017

a. Dependent Variable: Gross National Savings ($)

b. Predictors: (Constant), External Debt, Population Growth, Gross Savings GNI, Inflation, General Expenditure, Gross Domestic Product Growth, Exports, Human Capital, Employment Foreign Direct Investment and Policy Rate .

The table 5 above, is the analysis of variance of the variables under consideration. F and Significant level. This is the F-statistic is associated with p-value. The F-statistic is the Mean Square (Regression) divided by the Mean Square (Residual): The p-value is normally compared to some alpha degree level in testing the null hypothesis (H_0), that all of the model coefficients are 0**.** ANOVA has conducted that examined the relationship between economic growth and financial impact on lower middle incomes of individuals in Ghana. There was a statistically significant relationship between the economic growth and financial impact on lower middle incomes of individuals in Ghana, F= 2.1840, p = .000.

Table 6, Showing Coefficients of Macroeconomic Variables used in Regression Analysis

Model	Coefficients (B)	Standard Error	t-Stat	p –Value	Sig
Intercept	59.3991	36.7638	1.6157	0.1285	-19.4514
GDPGR	-0.0799	0.4100	-0.1949	0.8483	-0.9593
POP.GR	-15.0344	10.1397	-1.4827	0.1603	-36.7820
GEN .EXPEND.	0.6166	0.4001	1.5411	0.1456	-0.2415
EXP % GDP	-0.0066	0.1045	-0.0629	0.9507	-0.2307
UNE LAB.FOR	-1.0854	0.6287	-1.7264	0.1063	-2.4337
INFLATION	0.2362	0.1315	1.7961	0.0941	-0.0458
EXT DEBT GNI	0.0717	0.0453	1.5847	0.1353	-0.0253
FDI % GDP	0.5025	0.5770	0.8709	0.3985	-0.7350
SCH. ENR	-1.6448	7.5651	-0.2174	0.8310	-17.8702
GNI CAPITA	-0.0069	0.0054	-1.2732	0.2237	-0.01844
POLICY RATE	-0.4581	0.2404	-1.9058	0.0774	-0.9736

Source: World Bank Economic Indicators on Ghana, 2017

a. Dependent Variable: Gross National Savings ($)

According to the table, the t-tests suggest there were no linear relationships between Population Growth, Gross Domestic Product Growth, Human Capital, Exports, Unemployment, Inflation, Policy Rate, External Debt, Gross National Income and middle-income status since their P -values 0.1603, 0.8483, 0.8310, 0.9505, 0.1063, 0.0941, 0.0774, 0.1353 and 0.2237 respectively are all greater than the level of significance (0.05).

4.8.2 Empirical Model and Data

Regression Equation Model

From the analysis the linear regression equation is determined as:

GROSS NATIONAL SAVINGS = 59.3991 + 0.6166GE – 15.0344PG -0799GDPG +0.5025FDI -1.64482HC -0.0066EXP -1.0854Unemp + 0.2362Inf - 2.323EXD – 0.4581POLR – 0.0069GNI 36.7638

Where the variables GDPG = Gross Domestic Product Growth, GE = General Expenditure, PG = Population Growth, FDI = Foreign Direct investment, HCA = Human capital (school enrollment to Secondary), EXP = Exports, UMP= Unemployment, INF = inflation, GNS = Gross National Saving (% GNI), EXD = External Debt., POLR = Policy Rate.

The values in the unstandardized coefficients (B) column, presents the values of the coefficients of the predictors. The intercept parameter of the model suggests that Grosss National Savings will be equal to the intercept (59.3991) if all other predictors are equal to zero or do not exist. Gross national savings will be equal to the intercept parameter of 59.3991 will be the value of the gross national savings of the middle-income economy. The coefficients of the predictors in the model represent the percentage increase or decrease in the value of the dependent variables (gross national savings). The coefficient 0.6166GE in the model means that for any increase in the dependent variable (gross national savings), there must be a corresponding increase in general government expenditure in the economy by 0.6166 holding all other factors constant.

The coefficient (- 15.0344)PG in the model means that for any increase in the dependent variable (gross national savings), there must be a corresponding decrease in population Growth in the middle-income economy by (– 15.0344) holding all other factors constant. The coefficient (-0.0799)GDPG in the model explains that, if there is an increase in the gross national savings, there must be a corresponding decrease in the gross domestic product by (-0.0799) in the middle-income economy by(-0.0799) holding all other factors constant. The coefficient + 0.5025FDI in the model also means that, for an increase in the gross national savings, there must be a corresponding increase in foreign direct investments by 0.5025 holding all other factors constant.

The coefficient (– 1.6442)HC in the model explains that, for an increase in the gross national savings , there must be a corresponding reduction in human capital by holding all other factors constant. The coefficient (-0.0066)Exp in the model means that, for an increase in the gross national savings, there must be a corresponding decrease in exports of goods and services by (– 0.0066) holding all other factors constant. The coefficient -1.0854Unemp in the model means that, for an increase in the gross national income, there must be a corresponding decrease in unemployment by (-1.0854) holding all other factors constant. The coefficient +0.2362Inf in the model means that, for an increase in the gross national savings, there must be a corresponding increase in inflation (CPI), by 0.2362 holding all other factors constant. The coefficient -0.0069GNI in the model means that, for an increase in the gross national income, there must be a corresponding decrease in Gross

National Income (GNI), by -0.0069 holding all other factors constant.

The coefficient 0.0717 EXD in the model means that, for an increase in the gross national savings, there must be a corresponding increase in external debt by 0.0717 holding all other factors constant. The standard error associated with the intercept parameter is 36.7638. From the table 1.6 above, it can be observed that the majority of the variable that was used to predict the relationship between the economic growth, its corresponding savings and middle-income status turned not to be significant.

4.9 Autocorrelation Testing

The insignificance of the results above may be due to the multi correlation between the variables. Thus the variables used in the test may be highly correlated. A high correlation between the variables may result in the no significancant result. Autocorrelation was therefore used to rectify this and was used in determining the significance of each variable used in the regression. Autocorrelation tries to explain characteristic of statistics where the correlation exist between the values of the similar variables that also based on other related objects. However, it violates the assumption of instance freedom, which underlies most of the conventional models. Generally, it exists in those types of data - sets in which the data, instead of being arbitrarily and carefully chosen, are from the same source.

To test autocorrelation, the following hypothesis is formulated;

H_0 = First –order autocorrelation does not exist H_1 = First – order autocorrelation exists

The Durban Watson test (DW) assumes values between 0 to 4. A value of DW equals 2, indicates that there is no autocorrelation between the residuals of the predictor variables. A DW – test value below 2 indicates a positive autocorrelation while a value higher than 2 indicates a negative serial correlation. Durban Watson Test result is shown below:

Table 7, Showing Analysis of Variance

Source	DF	SS	MS	F	P
Regression	11	304.	87 27.72	2.18	0.085
Residual Error	14	177.	66 12.69		
Total	25	482.53			

Durbin-Watson Statistics as 2.56587

Source: World Bank Economic Indicators on Ghana, 2017.

Table 8. The Coefficients of DW –test

Predictor	Coef	SE Coef.	T	P
Constant	59.40	36.76	1.62	0.128
GDP	-0.0799	0.4100	-0.19	0.848
POP	-15.03	10.14	-1.48	0.160
GEN	0.6166	0.4001	1.54	0.146
EXP	-0.0066	0.1045	-0.06	0.951
UNP	-1.0854	0.6287	-1.73	0.106
INF	0.2362	0.1315	1.80	0.094
EXT	0.07174	0.04527	1.58	0.135
FDI	0.5025	0.5770	0.87	0.398
ENR	-1.645	7.565	-0.22	0.831
GNI	-0.006871	0.005396	-1.27	0.224
PLR	-0.4581	0.2404	-1.91	0.077

The D-W regression equation is shown below as:

GNS = 59.4 - 0.080 GDP - 15.0 POP + 0.617 GEN - 0.007 EXP - 1.09 UNP + 0.236 INF
+ 0.0717 EXT + 0.503 FDI - 1.64 ENR - 0.00687 GNI - 0.458 PLR + 36.76

From the table above, since the DW statistic is 2.56, we can safely conclude then that there is negative serial correlation amongst the predictor's residuals.

4.10 Conclusion

In conclusion, the impact of economic growth on the level of individual savings in Ghana is significant. As a

middle-income country, Ghana has experienced notable economic progress in recent years, which has influenced the savings behaviour of her citizens. Economic growth provides individuals with improved income opportunities, increased employment prospects, and enhanced living standards, thereby creating a conducive environment for savings. With the expansion of the economy, there is a growing middle class in Ghana, which has a positive effect on savings. As individuals experience rising incomes and improved financial stability, they are more inclined to save a portion of their earnings. This is evident in the increased participation of Ghanaians in formal financial systems, including banking services and investment opportunities.

The availability of accessible banking services, facilitated by financial inclusion initiatives, has made it easier for individuals to save and invest their income in secure and regulated channels. The results from the secondary data analysis conveyed the idea that the current macroeconomic environment in Ghana then was good for savings. It indicated further that, there are different kinds of savings individuals make and that more people would like to save their money with the banking institutions in the region. Some proportion of these savers would also be ready to save their money or part of their income in property development, while some also channeled their savings into insurance companies and some others saved their income in some optional areas.

However, challenges remain in ensuring widespread savings across all segments of the population. Income inequality and disparities in access to financial services still pose barriers to savings for certain groups. Efforts should be made to address these challenges by promoting inclusive growth and financial inclusion, ensuring that all individuals have access to affordable banking services and financial education programs. Overall, the impact of economic growth on individual savings in Ghana is significant, driven by factors such as increased income, financial literacy, government policies, and improved access to financial services.

4.11 Recommendation

In order to promote economic growth of individual savings in Ghana, it is important that a set of economic policies and measures are implemented. This should cover various aspects that can effectively encourage and incentivize individual savings, leading to enhanced economic development.

In the first place, there is the need to strengthen financial inclusion and access to banking services. Middle-income countries such as Ghana should prioritize efforts to enhance financial inclusion by improving access to formal banking services. This can be achieved by expanding the reach of banking infrastructure, particularly in rural and underserved areas, and promoting the use of digital financial services. By providing easy and affordable access to banking services, individuals will be more inclined to save their income in secure and regulated financial institutions, thereby channeling funds into productive investments.

Secondly, it is essential to promote financial literacy and education in Ghana. In order to encourage individual savings, middle-income countries including Ghana should invest in financial literacy and education programs. These programs should target different segments of society, including schools, communities, and workplaces. The objective is to enhance individuals' understanding of financial concepts, such as budgeting, debt management, investment options, and the benefits of long-term savings. By equipping individuals with financial knowledge, they can make informed decisions, allocate their savings effectively, and contribute to economic growth.

Thirdly, middle-income countries should consider implementing tax policies that provide incentives for individuals to save. This can be achieved by introducing tax deductions or exemptions on savings contributions, especially for long-term savings instruments such as retirement accounts or education savings plans. By reducing the tax burden on savings, individuals are motivated to save more, leading to increased capital accumulation for investment and economic growth.

Besides that, middle income countries should endeavour to develop and enhance pension systems. The focus of middle-income countries should be on developing strong pension systems to encourage long-term savings. By so doing governments of middle – income countries can design and implement mandatory or voluntary pension schemes that ensure individuals save a portion of their income for retirement. These pension systems should offer attractive benefits and provide secure and reliable investment options. By ensuring financial security during retirement, individuals will be motivated to save for the future, creating a sustainable pool of savings that can be channeled towards productive investments.

Finally, there is the need to facilitate access to investment opportunities. Governments of middle-income countries should create an enabling environment for individuals to invest their savings in productive sectors. This can be achieved by implementing policies that reduce bureaucratic barriers, simplify business registration processes, and improve access to capital for small and medium-sized enterprises. Furthermore, governments should focus on creating a favourable regulatory framework that encourages private sector investments, stimulates entrepreneurship, and supports the growth of innovative industries. By providing investment opportunities, individuals will be motivated to save and contribute to the overall economic growth of the country.

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