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

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**Abstract**
The ultimate target of any economic policy of a country is to have a positive socio-economic impact on the individual citizen of that country. The 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. Yet, the research has also adopted the mixed method approach in making an empirical investigation appropriate into Economic Growth and its impact on Middle Income of Individuals 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, 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 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.
**Keyword:** FDI – Foreign Domestic Investment, GDP – Gross Domestic Product, GDS- Gross Domestic Savings, GSS –Ghana Statistic Service, LMI – Lower Middle Income, PCI – Per Capita Income, EG – Economic Growth
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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.

Due to a severe drought during his regime in the year 1983, the government at the time had to go in for a harsh International Monetary Fund (IMF) and World Bank loan conditions, which led to institutionalization of the Economic Recovery Program (ERP) in 1983. The ERP programme at the time essentially emphasized on the advancement of the export sector and an enforced fiscal strictness and discipline, which together intended to eliminate the county's budget deficits.

Since, launching of the economic reforms programs in 1983, Ghana has largely liberalised economic

 

controls to some degree. 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. The Real GDP growth in 2001 recorded 4.2 percent from the decade low of 3.8 percent, which was registered the previous years.

Ghana's economic improvement in 2001 was due to the Economic Recovery Programe (ERP) policy embarked upon in the 1983 and subsequent improvement in agricultural production aided by improvement in prudent macroeconomic management adopted by the then government. It was observed later that, the improvement in Ghana's economic management was underscored by significant improvement in public finances. Due to a substantial outcome in domestic tax collections, government's subsequent effort and prudence in government spending, the country's budget achieved its highest ever primary balance in 2001. With that Ghana subsequently, enjoyed a sustained average growth rate of 5.1% per year, or 2.8% per capita yearly, over the last decade also, and 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).

There has been a phenomenon achievement in the management of the economy during these years. In the year 2010, the World Bank reviewed Ghanaian economy and decided to upgrade or categorize the economy as lower middle – income, moving from a lower income level into middle – income status on the 1st July 2011. It therefore means that, the country has now an average per capita income of US$1,006 to US$3,975, according to the World Bank (World Bank, 2012).

In the same year 2011, Ghana achieved a record growth of 15 percent (IMF, 2014a), however, this could not be maintained in the subsequent years. In the year 2013, Ghana's growth rate dropped to 5.4%, as against the targeted growth rate of 8.8% lower than the rate in 2012 of 7.9% rate in 2012 (IMF, 2014a; GSS, 2014). In the area of macroeconomic stability, the Ghanaian economy has made significant progress. Though inflation figures had been in a double figures for the past years, yet, for the first time inflation dropped and remained in a single digit for a continuously thirty (30) months (The State of Ghanaian Economy, 2015). In the first half of 2012, the local currency, the Ghana cedi experienced some challenging pressures which was due to a huge balance of trade deficit, afterwards the Ghana cedi came back strongly to enjoy some relative stability. The outcome of the relative stability came about due to a strong foreign reserves of the country. This foreign reserve had increased significantly from about $2billion at the beginning of 2009 to approximately $5.5billion (The State of Ghanaian Economy, 2015). Even though the Ghanaian economy during this period could not sustain the growth rate witnessed in 2011.

Currently, Ghana's population stood at approximately 30.8 million people (Ghana Statistical Service, 2021). This increased population brings to focus what the impact of the current economic growth and middle – income status bring to the individual Ghanaian. Most importantly, will there be any impact of the current economic growth on the teeming young graduates coming out from the various tertiary institutions in the country which currently stood at approximately 400,000 annually (Ghana Statistical Service, 2015)?. That is whether if the increase and improvement in the GDP and the Middle –Income status of Ghana's economy really have any significant impact on individual socioeconomic status such as wealth, savings, investment, employment and level of individual productivity as a whole.

### 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).

Both Ghana and South Korea attained independence round the same time in 1957. Ghana's per capita GDP three years after independent (1960) was estimated to be higher than that of the newly industrialised country of South Korea. By the year 1960, GDP per capita of Ghana was approximately US$198.6 as compared to US$151.4 for that of South Korea. These approximations were based on data from International Financial Statistics Yearbook issues from 1989 to 2005. Throughout the 1957-1965 period, which was the period of independence, before the overthrow of the first democratically elected government, the estimated average growth rate of real GDP of Ghana was approximated at 4.62 percent. It was also estimated that the average growth rate of South Korea's real GDP during period between 1960 and 1965 was modestly higher at 6.1%.

There have been back-to-back GDP growth since 1986, which though ended up in Ghana's t 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. As a result, economic analysts are asking the question whether the lower middle-income status of Ghanaian economy is of any benefit to the citizens and if does, whether it has any impact on all other economic variables or indicators. In view of the important role that economic growth plays in the development process of any economy, it is important to understand the nature and determinants of economic growth in relation to Ghana. Therefore, the research sort to establish the relationship that exist between economic growth the level of saving of middle –income individuals 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.

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### 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

For me 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 (1990), 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.

In some other emerging economics, economic growth was attributed to remittances which represent a greater proportion of international capital flows and even surpasses export revenues, foreign direct investment (FDI), as well as foreign aid (Giuliano and Ruiz - Arranz, 2005). In the World Bank (2006) study, an estimated remittances have increased, which was greater than the official development assistance or foreign direct investment. Gupta, et al. (2007) in their study indicated that, an official projected remittance reached a total of $188 billion in 2005. This amount was a double of development assistance received by developing economies.

Studies had it that between the years 2000 and 2005, transmittals to Sub-Sahara Africa (SSA) increased to approximately 55 percent. This was nearly $7.0 billion in contrast to 81 percent increase for all other developing economies put together.

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 OPERATIONAL DEFINITIONS OF SOME MACROECONOMICS VARIABLES

In reviewing literature in this research, the researcher has made some attempts to give some functional definitions and explanations to some terms and variables used under the chosen topic. A clearer understanding of these terms would help in further and better investigation as the research progresses.

### 2.2.1 Economics Growth and Gross Domestic Product or Gross National Income

Economic growth could be explained as a continuous improvement in a country's national income or a constant increase in a country's output as a result of increase in the country's production capacity. This economic growth is normally measured using the term Gross Domestic Product (GDP). In case where, economic growth- thus greater production of goods and services translate into an enhancement in the standard of living of the people in an economy, then this situation could be described as economic development of that country.

A country's economic growth can be measured using nominal or real terms, where the latter of which is adjusted to careter for inflation element. Generally, the gross domestic product explains the monetary value of a country's output both goods services in a particular year period. Economic growth is based on certain economic drivers that have been identified, which include the main determinants the main determinants of economic growth. These determinants apply for both developed and developing economies even though the relative premium that one might assign to each will depend on the specific situations facing each country or region.

### 2.2.2 Economic Development

As already explained, an economic development is made up of an economic growth together with a progressive improvement or a favourable transformation in the structure of an economy that tends to change the quality of life of the majority of people in that economy. It does not presuppose that, the economy is only becoming rich, but the majority of individual citizens living in such an economy are becoming rich as well. In the sense that, in such an economy, there are transformation in progress to ensure that, standards of living of the citizens continue to improve in the future. A very strong indication of a country's economic development is that it is usually a long-term nature. In measuring, the general economic health of an economy is to look at the country's economic growth and development from year to year

### 2.2.3 Middle Income

The World Bank definition of Middle –Income Countries (2012), explained a country having a per capita gross national income of US$1,036 to US$12,615 are a varied groups, population, and income level. Middle-income countries form approximately 73 percent of the world's poor people of over seven billion people. 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. The World Bank grouping the entire global economies, tried to classify each of these economies throughout the world into a low, middle and high income. Where the World Bank uses Gross National Income (GNI) per capita as the basis for this classification, in the view that GNI has a quiet a wider measure that measured the single paramount indicator of economic capability and progress.

As a result, low-income and middle-income economies are both referred to as developing economies. In the

2016 fiscal year, low-income economies have been again redefined and reclassified accordingly. The World Bank Classification (2016) indicated that the middle-income economies are those with a GNI per capita of more than US$1,045 but less than US$12,736. The middle-income classification again has separated the middle-income economies into two; the lower-middle-income and upper-middle-income economies. Countries with GNI between US$1,046 - US$4,125 are lower-middle income and US$4,126 - US$12,735 as upper middle-income economies.

Middle-Income Countries (MICs) have diverse group sizes, population and income level, ranging from very tiny nations or economies with very small populations such as Belize and the Marshall Islands and the three biggest countries – Brazil, India, and China. China and India put together approximately hold one-third of the entire population of the world and remain to be increasingly influential players in the global economy today. As at the end of the year 2012, there were 103 MICs identified throughout the world, this has been further subdivided into 48 lower-middle-income economies (GNI between US$1,036 and US$4,085) and 55 upper-middle-income economies (GNI between US$4,086 and US$12,615).

## 2.3 THE THEORIES OF ECONOMIC DEVELOPMENT

Theories according to economists reveals that there are a systematic in-depth explanation of the interrelationships amongst economic variables, and the purpose is to explain the fundamental and causal relationships among these variables. In many occasions, a theory is adopted not only for the sake of understanding better, but also to provide a basis for policy making. In any case it important to know understand, theorists cannot fully consider all the necessary factors that influence economic growth in just a single theory. In a case of this nature they must figure out and determine which of the variables that are crucial and are also irrelevant in the given situation. Not forgetting also that, the reality is so complex that just simple model may not adequately overlook crucial variables in the real world. And although complex mathematical models can handle a large number of variables, they have not been very successful in explaining economic development, especially in the third world.

The main challenges of economic growth and development, which are quite complex and multidimensional, seem to have resulted in the development of several theories, explanations, arguments, and assertions (World Bank, 2000). The review of these theories would seek to explain some of the tools and strategies, approaches ad policies that would help in making sustainable development goals achievable in the long -run. The research work tried to review classical theories involving four main clusters including structural change models; and neoclassical counter-revolution models. Subsequently, contemporary theories of economic development, including new growth theory and theory of coordination failure, will be reviewed.

### 2.3.1Traditional Keynesian Growth Theory

According to the Keynesian tradition, savings and investment are at the heart of macroeconomic variations and growth crises. Traditional Keynesian theory also suggests that the long - run rate of economic growth is mostly dependent on the level of savings rate. In this case savings rate tends to determine the financeable rate of capital accumulation in turn try to determine the basic determinant of long-run growth situation. It is generally known that macroeconomics emphasizes that, the determinants of savings are different from those of investment. The former depends mainly on income and wealth whereas the later depends on profitability and risk; meanwhile, both are important for economic transformation and should not be taken lightly.

## 2.4 CLASSICAL THEORIES OF ECONOMIC DEVELOPMENT

### 2.4.1 The Linear Stages of Growth Models

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.

Rostow's view was that the influential stage is that of take-off stage, on this bases, it was expected that developing countries make a transition from an underdeveloped economy to a developed economy. For that matter, increasing level of investments is needed to be essential to bring down per-capita growth. 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.

In a situation where it was observed that the country's domestic savings could not suffice the development target for the period, foreign savings were mobilized to augment it. In their works, Rostow (1960), Harrod (1948) and Domar (1947) were on target to mention that, the most significant role of investments that is also most closely associated with the economic growth rate, however, this could not at the time be the only condition for a country or an economy to develop though. The fundamental flaw of these models lies in their simplifying assumptions. Here a single production function is simply assumed for all countries (Adelman 2000).

Every economy is assumed to have the same necessary conditions and would have to pass through similar stage-by-stage process. However, that similar economic growth route, which had been previously followed by the more developed countries, is not necessarily the only one route into development. In the view of (Chenery 1960; Chenery and Syrquin 1975) development process for that matter is actually highly nonlinear in nature. According to Morris and Adelman (1988), countries may tow a distinct development paths in their quest towards development. Whereas some economies may one way or the other some miss stages, or become somehow locked in one particular stage, or even retreat depending on some other complementary factors and conditions, such as managerial capacities, and the availability of skilled labour for a diverse development projects ( Todaro and Smith 2009).

### 2.4.2 Structural Change Models

Throughout the greatest part of 1960s and the beginning 1970s periods, economists usually described the development course as structural change where the reallocation of surplus labour from the agriculture to the industrial sectors of the economy and this was considered the key components for growth and development of the economy. The two well-known representatives of this approach are the two-sector model (Lewis, 1954), and it involved fundamental change and forms of development (Chenery 1960). The two-sector model or theory of surplus labour, progressively, labour shifted from the agricultural (traditional) sector to the industrial sector. However, with an unrestricted stock of labour emanating from the agriculture sector, these transferred workers repeatedly received only subsistence wages. The surplus of contemporary sector which resulted in profits over wages, it is expected that investment in the contemporary sector should continue to grow and create further economic growth and development on this premise that all profits would be reinvested (Lewis' 1954).

While endorsing and still encouraging the parts of savings and investments play on growth and development, the structural transformation and arrangements of growth and development analysis also been extended into a comparison with the Lewis model. Over here analysis recognised that the gradual buildup of physical and human capital are among conditions essential for economic growth, apart from savings and investments. Besides, the structural changes occurred not only in the two sectors but also in all economic functions, including the change in consumer demand from an stress on food and elementary requirements and needs for varied manufactured goods and services, international trade and resource use as well as changes in socio-economic factors such as urbanisation and allocation of a country's population.

There were however some criticisms about the model. The criticisms of this particular models were strengthened on the ground that, in several developing countries, poverty and lack was widespread. Due to the pattern suggested by structural change economists, in the latter part of 1960, the attention of policy-makers began to shift towards an emphasis on human capital, i.e. education and health (Meier 2000). Afterward, it was observed that, investments in only health and education alone do not guarantee development. "In Sub-Saharan Africa, for example, life expectancy rate and the rate of school enrolment have improved significantly within the last ten years. Within the region also, some of the economies have had slow down growth rate and even in some cases negative growth rate level has been recorded ever since the early 1970s" (World Bank 2000, p.16). It has been identified that, structural change models paid much attention to the pattern of development and hypothesize that the pattern was comparable to all countries and was identifiable.

## 2.5 NEOCLASSICAL ECONOMIC GROWTH THEORY

Growth accounting decomposes GDP growth into growth of variables other than GDP that is an increase in GDP is "described" in term of weighted growth rates of some other variables. One does not need to look at other variables as making up a reasonable final explanation of GDP growth; but for the resolve of predicting prospective economic growth, regularity in the relationship with output suffices. The neoclassical economic growth model has been one of the powerful models in during mid-1950s. This model is strongly connected through the effort of Solow (1956, 1957), whose influential work got him the Nobel prize in 1987.

## 2.6 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.

A nation can theoretically determine the amount of labour and capital needed to remain at that stable point, it is technological advances that actually impact the economic growth. The neo-classical theory seeks to explain that economic growth will take place only when there are technological advancements, and those advancements do not occur by chance. The moment an advance has been made, then labour and capital must be adjusted accordingly.

However, there were two main concerns with this era of theories. One of these concerns is that, the assumption that an uninterrupted economic growth can only be attained where there is sufficient technological advances, which does not happen by chance and therefore cannot be modeled. In the second instance, it depends on diminishing marginal returns of capital and labour. But, there is no concrete empirical proof for it or real-life proof for this stand. As a result, the model is known for identifying technology as a factor in growth but fails to ever considerably explain how. Solow (1956) traditional neoclassical growth theory has also become the workhorse of economic growth at the time.

The major improvement introduced by Solow in his model was to allow for factor substitutability in that stable equilibrium growth could be attained. This of course is in-line with a number of conventional evidences associated with economic growth including the relative reliability over time of the capital-output ratio and factor income shares. This model's main challenge is that output growth per capita converges to zero in the stable state. For it to have a stable state growth, there was introduction of exogenous technological change was.

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.

## 2.7 CONTEMPORARY THEORIES OF ECONOMIC DEVELOPMENT

Ever since the start of economic science the problem of economic growth has been at the focus and of concern. Searching for solutions for this problem supposed finding such factors for supporting economic development, which would provide higher living standards at a co2.9nstant population growth. It is known that human needs are unlimited: when people barely satisfy some, other appear, and so on, indefinitely. The crux of the problem of the expansion of needs is that they tend to be unlimited in quantity and qualitative renewal comes up against the limitations of economic possibilities. However, the fact is that the Earth's population is continuously increasing - it took 10 thousand years for mankind to reach population of 1 billion (it happened in 1850). It is clear that such a population development that began in the mid XIX had to be go along with advanced growth of aggregate product satisfying individual and social needs of people. At the present time, the issues of economic growth are very topical and an overview of these issues is necessary to start from the earliest concepts and theories that stood at the origins of the modern

## 2.8 GOVERNMENT SPENDING, TAXATION, AND ECONOMIC GROWTH.

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. At this point, the empirical studies had mainly analysed data from 1960 to mid-1980s.

One of the criticisms to these studies is based on the insertion of developed and developing countries in the similar analysis and this may lead to erroneous conclusions, taking into consideration the differences that these two clear-cut groups have (Folster and Henrekson, 1998).

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).

## 2.9 INDICATORS OF ECONOMIC GROWTH

Countries try to develop their economies aiming and targeting certain areas of socio-economic improvements of their citizen. Essentially, areas including the improvement on the gross national product, high standard of life living of citizens and sustainable development include the targets such countries would like to attain.

### 2.9.1 Growth of Gross National Product

The creation of the wealth of a nation is the fundamental objective of every economic development. Before the 1970s, nations considered rapid economic growth a good alternative for other characteristics of development (Todaro and Smith 2009). The performance of any economy is measured by looking the at the annual increase in gross national product (GNP) [an alternative assessment of the growth of the economy is a gross domestic product (GDP)]. In order to do a fair comparison, GNP is expressed in a common currency, usually US dollars, and reported in per-capita terms to take into account the size of a nation's population (Jaffee 1998). The World Bank currently replaces GNP per capita with gross national income (GNI) per capita to compare wealth among countries.

## 2.10 NEOCLASSICAL THEORY OF SAVINGS AND INVESTMENT

In review of literature so far, neoclassical theories have been used to expound the effect of savings, investment on economic growth. Theories such as neoclassical savings and investment, and endogenous growth are all used to enlighten on how saving and investment have impact on economic growth. 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?

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.

Ajao (2011) indicates that long-term capital formation of physical assets in every economy, private savings and investment is of utmost importance. Individuals undertake a considerable proportion of the direct physical investment and they also make public and private corporate investments possible through the transfer of savings (Issahaku, 2011). The implication is that macroeconomic growth determines to an enormous measure whether savings, investment targets and increases in socio-economic status will be achieved.

## 2.11 CONCEPUTUAL ENDOGENOUS GROWTH THEORY ON SAVINGS AND INVESTMENT CONCEPT

Savings and investment have been centered on endogenous concept, which was proposed by Pagano (1993). The concept captures the possible impacts of savings and investment in an economy on the growth of the economy as a linear function of capital accumulation. The concept has the assumption that, efficient and well-organise financial sector has the capacity to impact on economic growth through three main channels namely: channeling of improved savings to firms for productive investments, reduction in transaction costs and, improving the distribution of capital and rate of savings. In addition, the neoclassical and the endogenous theoretical frameworks are also very vital since they provide suitable elucidations on how savings, investment accumulation of capital all affect economic growth. The neoclassical theory with its savings and investment concept clarifies how savings and investment could regulate the level of economic growth in a country. The fact is that the endogenous growth theory really offers a suitable linkage by which accumulated savings are channeled to very productive investments (through advancing activities) for economic growth.

## 2.12 PROMOTION OF SAVINGS FOR ECONOMIC GROWTH

There has been an argument on the probable consequence of savings and investment in stimulating economic growth in economies all over the world and this has been taking place for several decades. The fundamental notion of the traditional philosophy of savings was that as savings increases it would lead to speed up economic growth, however the concept of investment indicated investment as the vital to stimulating economic growth. Nevertheless, the concept of the neoclassical contends that an improvement in the savings rate could enhance steady-state output which would be more than its direct effects on investment. The reason behind this is that as there is an increased in income level of individuals in an economy, this raises savings, culminating into to an additional growth in investment (Verma, 2007). The continuous increasing level of savings and investment in Ghana, was accompanied by the level of private sector action that have unfavourable repercussion on 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).

In the classical theory point of view, an improvement in savings and investment will ultimately see an improvement in output (Ramakrishna and Rao, 2012). Hence, the subject of savings and investment is not new but their implications on economic growth have had diverse consequences in both developing and developed countries. We are all aware that economic growth of any nation requires investment that can be financed through private savings. It, therefore, suggests that economic growth rests so much on investment through private savings and capital accumulation stated by (Mohamed, 2014).

## 2.13 FOREIGN DIRECT INVESTMENT AND DOMESTIC SAVINGS

According to Haavelmo (1963), was with the opinion that, there is a adverse association between Foreign Direct Investment (FDI) flow and the rate of savings in a country. The Foreign Direct Inflow (FDI) offers additional resources with the mind that it releases the pressure put by the development programme for a saving rate as high as possible. After some time, the component of private savings influence of FDI is agreed by the increase in income imputable to the FDI through the Marginal Propensity to Save (MPS). Regarding public savings, FDI effect is due to the inequality between tax revenue resulting from FDI and government expenditure on FDI (Boss, Sanders, & Secchi, 1968).

Furthermore, they upheld that FDI could have a positive impact on domestic savings cumulatively through its impact on both private and government savings. Cumulatively, FDI impact on private savings is directly linked to income through the marginal propensity to save. The FDI cumulative influence on public savings is through the direct effect trace to FDI in addition to the indirect effect on indirect taxation on taxes on profits, on taxes on wages and taxes on imports ascribed to FDI. The marginal impact of FDI appears at the change that FDI creates on the current year above the previous year.

The minimal effect on private savings again is rightly associated with the marginal income effect. Aside, the marginal influence on public savings is known by three additive terms. These additive terms include the increase in taxes profit and wages, direct taxes effect of Foreign Direct Investment, indirect taxes on imports, and an upsurge in public expenditure, which was negatively associated to Foreign Direction Investment. Mishra, Mody, and Murhiod (2000) in their argument maintained that whenever a country seems to be poor and therefore saves little, then extra Foreign Direct Investment coming from outside the country is necessary and can potentially can assist to get its investment opportunities hence generating quite more savings by way of employment, output and income.

## 3.0 METHODOLOGY

The section touches on the methodology used in the research.

### 3.1 Overview

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.

In the study also, empirical results was used to compare to existing studies and logical arguments. In addition, the qualitative approach, using semi-structured interviews and follow-up interviews, applied to examine Economic Growth and Middle-Income Individuals Ghanaians. The study aimed to develop a model that would reveal how best to describe the main characteristics of a descriptive framework that would better explain the connection that existed between economic growth and financial impact on middle incomes of individuals in Ghana.

### 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 Describing the Population for the Study

A population involves entirely possible cases of objects, persons, and events that is made up of an identified total (Yount 2006). This concept denotes every individual who fits the criteria that a researcher has laid out for the research participants (Saumure & Given, 2008). In the study, individuals in the Volta Region of Ghana, who were above 18 years of age and were employed in either formal or informal sectors of the Ghanaian economy constitute a well-defined group of individuals and were accepted and recognised as a population. This population comprises the target population, which are also accessible (Explorable.com, 2009; www.umsl.edu, n.d).

#### 3.2.2 Target population

In the study, the targeted population described those components for which the results or outcomes of the survey seek to generalize (SAGE Publications, n.d). This study has targeted twenty (24) districts of the Volta Region which the research work was focused. Individuals from these districts who were above 18 years of age, one way or the other also employed both in the formal and informal sectors of the economy.

#### 3.2.3 Accessible Population

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.

**3.2.4 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. In contrast, the stratified sample method comprises of splitting up of a population into rather a reduced groups known as strata. During this process the researcher first of all classifies the relevant stratums and their real representation in the population and then a random sample is used to select adequate number of subjects from each stratum. In addition, it minimizes the probability of an increase in sampling error.

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.

1. *Problem formulation,* literature search, data evaluation, and analysis-interpretation;
2. *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 etc.
3. *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.
4. *Econometric Tools:* Multiple Regressions Analysis, Co-integration analysis, VAR Analysis, t-tests, Tables and Graphs and any other valid Statistical or Econometric tools.
5. *Statistical Packages:* STATA, SPSS, MINITAB, MAXQDA, and EXCEL are statistical packages that were be employed in the analysis.
6. *Analysis of Data:* Data analysis methods are discussed below; A one-way chi-square analysis ($\chi^2$) test was applied to analyze the connection between lower middle income status. Descriptive statistics was used to analyses the Savings Behaviour in the Volta region. A one-way chi square analysis ($\chi^2$) test was also applied to analyze the association between middle income and level of savings. One-sample Kolmogorov Smirnow Test 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.

A multi regression analysis was used to establish a module that is proposed to policy makers. Dummy variables were introduced to explain the impact of economic growth before the attainment of the Middle Income Status and the impact of economic growth after attainment of Middle Income Status of the country. The dummy variable here is used as explanatory to explain the effect it has on the independent variables.

**3.3.1 Data Management Process**

In order to obtain effective results, data collected from semi-structured interviews and from official websites of the International Monetary Fund, the World Bank, Data Bank, Bank of Ghana, Africa Development Bank etc, will be categorised and cross -tabulated for the secondary data collected. In a situation where the data obtained from the semi-structured questionnaires, the information will be coded using software such as STATA, MAXQDA, SPSS and/or EXCEL to summarise and improve the raw data. The refined data was then be used for further analysis, an econometric tool such as multiple regressions analysis, co-integration analysis, VAR analysis, t-tests, tables and graphs, and any other appropriate econometric tools were also used. Statistical packages such as MINITAB and STATA helpful in investigating the economic impact on economic growth on individual socio-economic status. New models was developed, in order to elucidate and explain the economic factors that had affected the situation of individuals in a middle-income economy.

## 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.

**Research Hypothesis Statement**

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

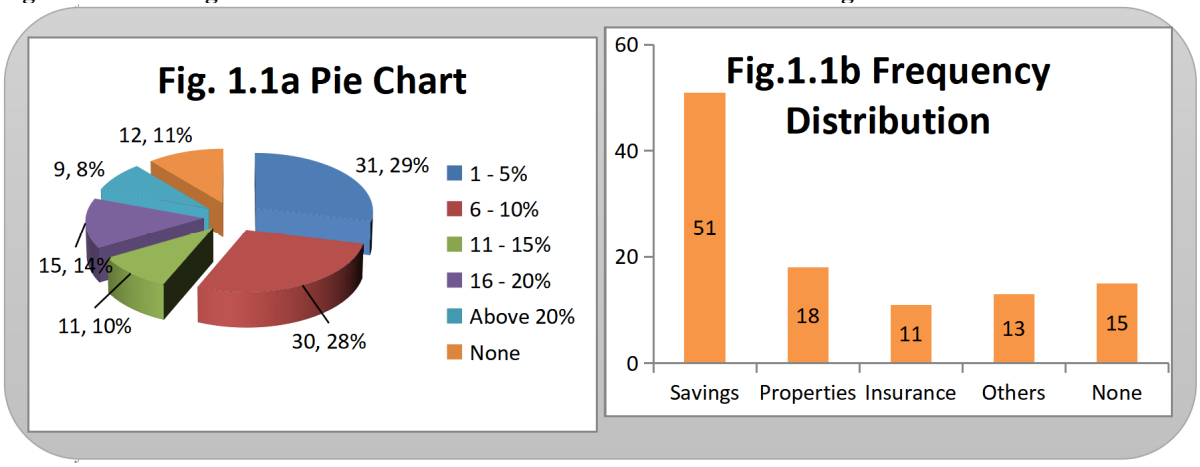
$H_A$: There is a statistically significant relationship between Lower Middle-Income status and the Level of Individual Savings in Ghana.

### 4.3 FINDIGS AND DISCUSSIONS

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

**Figure 1.1 Showing Middle-Income status and the level of individual savings in Ghana.**




(Source: Field Data, January 2017)

The figure 4.1b above represents a frequency distribution of the levels of individual savings, and some other factors. From the figures above, it is observed that 74(58.5%) of respondents saved whiles 18(16%) of respondents do not save. 16(14.9%) of respondents rarely saved. The results indicated that majority of respondents (68.5%) save. 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%) save 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 1.1 showing 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 |

Source: Field Survey Data, January 2017

Table 1.1 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. Variance also increases the variability of the scores massively. Again, the standard deviation is used to test for deviation.

The deviation in our research measures the risk of not saving in the economy, thus if one decides not to save in the economy, the standard deviation therefore measures the risk of not saving.

The standard deviation is, therefore, a risk determining the factor of the observations. From the table, it indicates 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 1.2 showing Relationship between Middle Income and Level of Savings**

| **Question** ***Ho: Hypothesis*** | **Response in frequency** | | | $\chi^2$ ***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,* $\chi^2$ $(2, N = 108) = 62.00$, $p < 0.05$; *I save for future contingencies,* $\chi^2$ $(2, N = 108) = 58.43$, $p < 0.05$; *I save for payment of property(Mortgage, car, land)* $\chi^2$ $(2, N = 108) = 38.21$, $p < 0.05$; *I save for education ( Self and dependents)* $\chi^2$ $(2, N = 108) = 63.72$, $p < 0.05$; *My minimum savings monthly is GH¢ 10.00 - GH¢100,* $\chi^2$ $(2, N = 108) = 35.38$, $p < 0.05$; *My maximum monthly savings is GH¢ 101.00 above* $\chi^2$ $(2, N = 108) = 30.89$, $p < 0.05$; *The level of lending rate affects my saving both positively and also negatively* $\chi^2$ $(2, N = 108) = 31.33$, $p < 0.05$; *The inflation rate or level of prices affects my savings* $\chi^2$ $(2, N = 108) = 52.72$, $p < 0.05$; *The current macroeconomic environment is good for savings* $\chi^2$ $(2, N = 108) = 22.72$, $p < 0.05$.

From 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 $\chi^2$ $(2, N = 108)$ was greater than the significance level. It is observed that, there exist a relationship between middle- income country and level of savings of individuals.

From the analysis above, it can be 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 $\chi^2$ (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 analyse 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 variable *Y* is the real GDP measured on annual basis in millions of US dollars, with the year 2000 being the base year. The variable *L* is the total labour force (the active working population) of Ghana. Since there is no reliable employment data on Ghana, we use the total labour force in this paper to proxy for labour supply.

The neoclassical, structuralist and market-friendly theories all discuss many different variables, which may act as indicators of economic growth in Ghana. The research focuses on some few key indicators of economic growth to determine their relative importance of economic growth (GDP). These variable or indicators fall under three main headings: outward orientation, government indicators, and macroeconomic indicators. Neoclassical theorist suggested that Outward orientation is one of the key indicators of economic growth. The variables included in this model are indicators which include; Net exports (EXP) as a percentage of GDP; Exports of goods and services represent demand for that country's products in other countries and therefore strong markets for that country's goods. Demand for a country's goods in world markets reflects growth potential and strong economic stability. 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. Neoclassical theory suggests that FDI has a positive effect on growth because this investment would strengthen private markets. "Because foreign firms already have marketing linkages, know-how, and production experience, some host countries have actively encouraged global exporters to establish production units in their country" (World Development Report 95). These host economies know of the advantages of FDI in their country and how it can affect growth rates.

Nevertheless, the causation is not clearly defined between growth and FDI. Reasons for FDI encouraging growth have already been demonstrated. The reverse situation is also plausible. Levels of economic growth can be positive for numerous reasons as expressed throughout this research. A company, looking for a country to invest in, values high levels of growth and economic potential. In this case, growth causes increased levels of FDI. However, for the sake of predicting a correlation between FDI and growth, this research will only focus on the positive correlation as suggested by neoclassical theory. Key indicators of growth as described by the structuralist theory deal with government indicators. Variables included in this classification represent the degree of government involvement in an economy.

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. Both of these variables represent ways in which a government can use fiscal policy to respond to or create shocks in the economy. Economists who follow structural theory believe government spending and investment is necessary for economic growth.

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. If this is the case, the government and private markets are probably more interested in solving their own economic problems than finding room for growth.

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

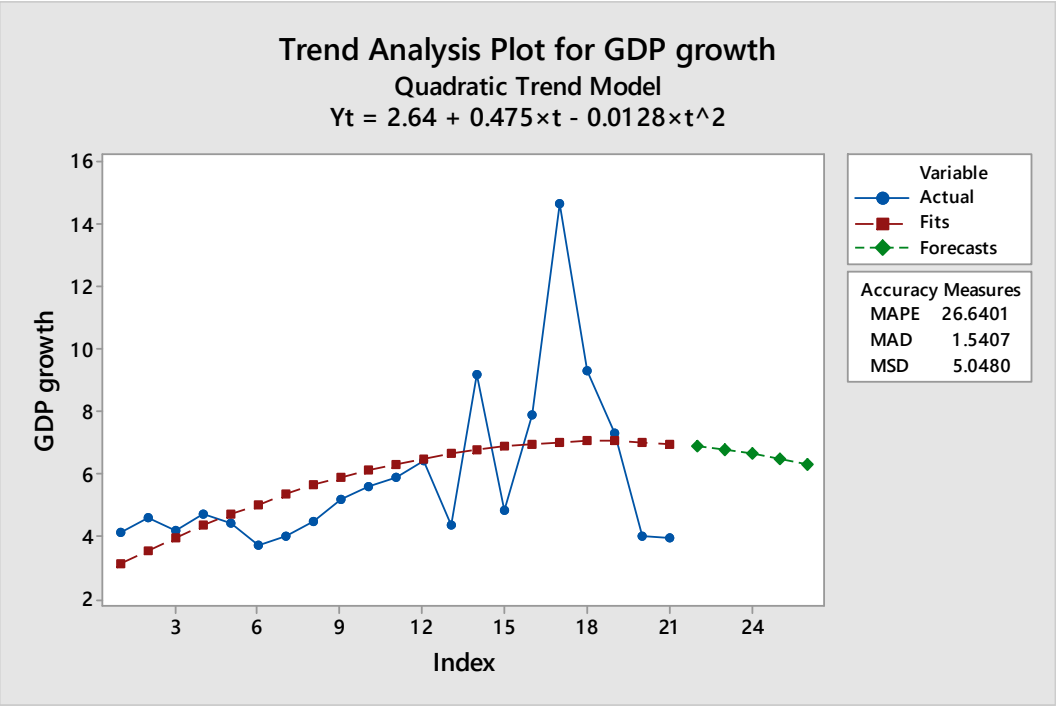
(Lahiri 1989; Bosworth1993; Loayza 2000).

Human Capital (HC); This term Human Capital (HC) was originally used by Nobel Laureate, Theodore W. Schultz, in the 1961 American Economic Review Article, 'Investment in HC.' Currently, the term is now use frequently to mean a combination such as skills, experience, and knowledge. Human Capital (HC) is an all-inclusive term for "the knowledge, skills, competencies and other characteristics exemplified in individuals or groups of individuals acquired during their life, which is used for production of goods, services or ideas in market situations. Human Capital makes an individual potentially productive and thus equips him or her to earn income in exchange for labour. Human capital is a collection of traits – all the knowledge, talents, skills, abilities, experience, intelligence, training, judgment, and wisdom possessed individually and collectively by individuals in a population.

### 4.5.0 GENERAL TREND MODULE ANALYSIS

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

Figure 1.2, Time Series analysis of variables




Source; World Bank Economic Indicators on Ghana, 2017

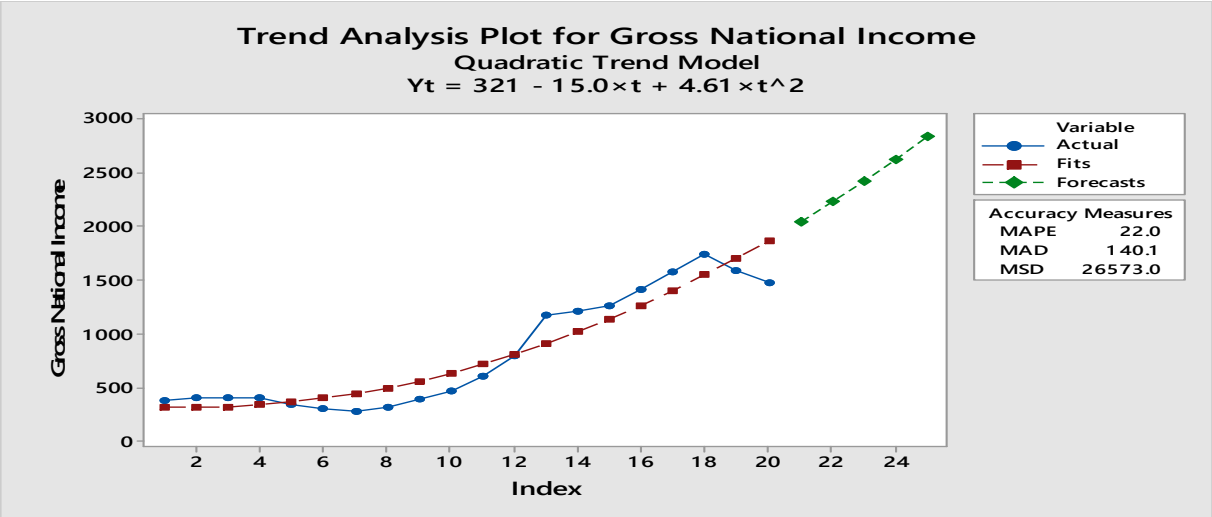
Figure 4.9.1 indicates the trend plot that shows the original data of GDP growth, the fitted trend line, and forecasts. From the trend analysis, the figure for GDP growth for the following five years was determined. The green dotted line represents the GDP value forecasted into the next five years. From 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***

*4.5.1 Trend Analysis for Gross National Income*

**Figure 1.3 Trend Analysis for Gross National Income**




Source: (World Bank Economic Indicators for Ghana, 2017)

From the Minitab quadratic trend analysis, 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.

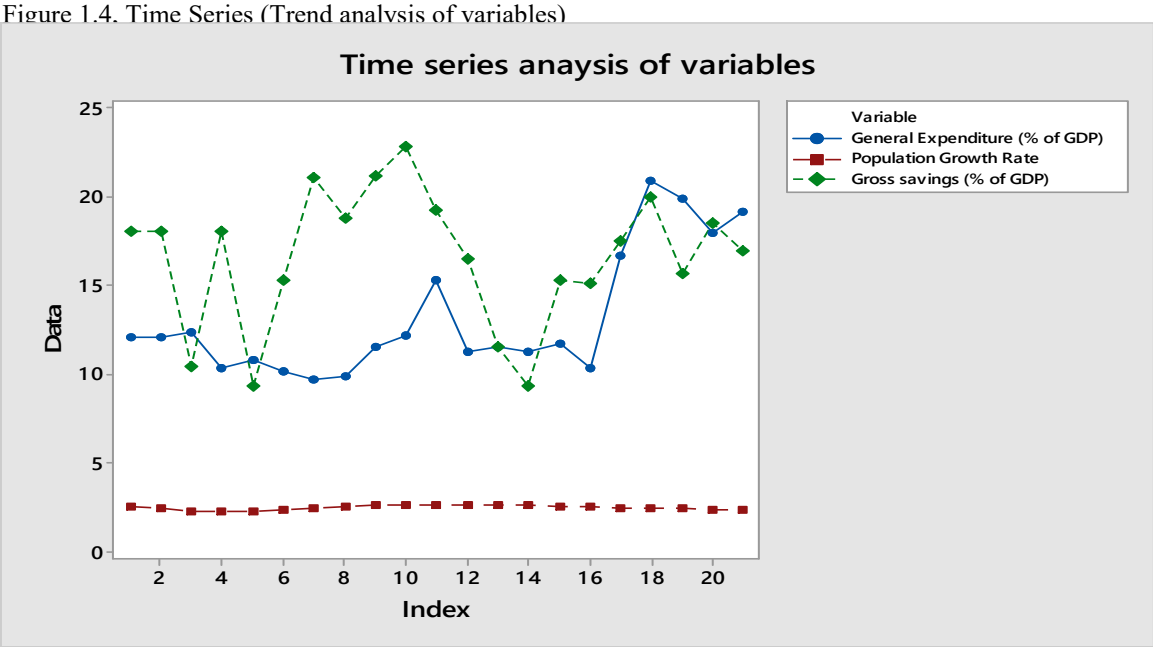
Research Hypothesis

$H_0$: 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.

Figure 1.4. Time Series (Trend analysis of variables)




Source: (World Bank Economic Indicators for Ghana, 2017 )

The figure…… above represents the time series analysis of savings (% of GDP).

The figure represents the gross savings (% of GDP) in the macroeconomy of Ghana. 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.

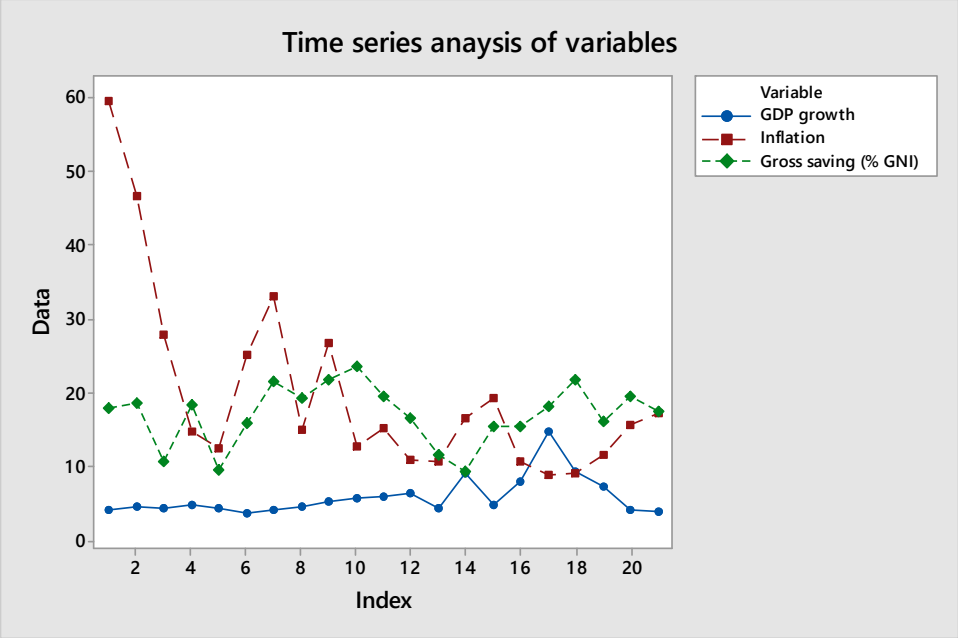
In Ghana, Household savings defined in this study, follow that of Zeller et. al., (1997) as cash that is set aside in the form of interest-bearing asset, bank or savings account, or in a "susu" account, for a given household, measured by the balance of a household's bank/savings/Susu account, in the aggregate data of GLSS-6 data-set. In addition to the form with which savings is stored, it can have sector classification. Sector classification regards incomes or monies that are available to economic agents (households, firms, and corporate organisations, and the government) from which part can be put aside. This broadly groups savings as; household sector savings, private sector savings and public sector savings (Aryeetey and Udry, 2000; Goodwin-Groen, 2012).

According to Borsch-Supan (2003), household sector savings are savings accrued by individuals in a household. Private sector savings engulfs savings made by privately owned business institutions. Some private sector institutions include commercial banks, non-banking financial companies, insurance company's insurance companies, working in the private sector, co-operative banks, credit societies, and non-credit societies etc. Public sector savings are the government savings and savings generated by the public sector undertakings in the form of internal resources.

Households save for numerous reasons ranging from house purchases, vacation, college education, etc., to retirement preparations. It is worth noting that, households with the same features such as income may have different saving decisions.

Figure 1.5 , Time Series (Trend analysis of variables)




Source: (World Bank Economic Indicators for Ghana, 2017 )

The figure 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).

Ghana's economic growth trends clearly reveals two distinct periods. Where the first period spans from the first twenty –five (25) years after independence, with Ghana's growth averaging near zero and with enormous instability. The second period covering the period of economic recovery to date. This period recorded normal growth on average. Furthermore, nearly over past decades, statical sample shows the beginnings of growth acceleration. Since then, economic growth was mainly stronger between 2002 and 2008, averaging at 6.1 percent per annum. The year 2011, witnessed an exceptional economy growth rate of 14.4 percent, making it the fastest growing economy in the world in that year. This growth of the economy was primarily driven by oil production which started during the last quarter of the 2010 (ISSER, 2012).

From the figure 4.8 above, we observe the graph Gross savings (% of GNI) of Ghana from the year 1995 to 2015. According to the World Bank economic indicators (1990 -2015) macroeconomics indicators on Ghana), the Gross savings (% of GNI) of Ghana in 1990 was 10.533, 1991 (11.869), 1992 (6.935), 1993 (12.84), 1994 (19.08), 1995 (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).

The fundamental objective of the traditional theory of savings was that by increasing saving would result in accelerating economic growth, despite the fact that the theory of investment indicated investment as the main strategy to promoting economic growth. Alternatively, the neoclassical theory contends that an improvement in the level savings rate enhances steady-state output in excess of its direct implications on investment. 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. Yet, some of these studies have not specifically focused on how the falling savings and investment rate impact on economic growth in Ghana. Though taking into consideration the important role saving and investment played in economic growth and development of a nation.

From the figure above, we observe the inflation graph of Ghana from the year 1990 to 2015. In the year 1990, inflation was 37.259, 1991 (18.031), 1992 (10.056), 1993 (24.96), 1994 (24.87), 1995 (59.462), 1996 (46.561), 1997 (27.885), 1998 (14.624), 1999 (12.409), 2000 (25.193), 2001 (32.905), 2002 (14.816), 2003 (26.675), 2004 (12.625), 2005 (15.118), 2006 (10.915), 2007 (10.733), 2008 (16.522), 2009 (19.251), 2010 (10.708), 2011 (8.727), 2012 (9.161), 2013 (11.608), 2014 (15.493), 2015 (17.145).

It is observed that, Ghana's inflation in the early 1990s was very high compared to now. Inflation has been an intractable problem to the Ghanaian economy this high inflation level during the period had significant negative impact the level of savings. Since high inflation, level eroded individual disposal income dropping

savings level to some extent. The worst inflation case of Ghana was recorded in 1983 when the country had a serious food shortages – with inflation peaked at 123 per cent that year. However, embracing inflation targeting in 2003 appears to have contributed to this disinflationary era. Amoah and Mumuni (2008) indicated that what contributed to the jumps of inflation in 2003 and 2005 was to the robust external oil price shocks. It must be mentioned that, this particular time also corresponded with the implementation of deregulated prices of domestic petroleum products.

### 4.7 Unit Root Test using Augmented Dickey-Fuller test

Unit root tests were conducted to test for stationarity in a time series. The time series data used for our regression analysis is needed to test for stationarity or non - stationarity.

*Statement of Hypothesis:*

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

**Table 1. 3, Showing Augmented Dickey-Fuller test for unit root**

. dfuller 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 above represents a unit root test for the secondary data output. From the results it is observed that at 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 middle-income countries. In order to achieve this, a null and alternate hypothesis 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 1.4 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 1.5 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 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 1.6 Coefficients**

| **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).

**4.8.3 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 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.

**Hypothesis for the testing of autocorrelation is**

H0 = First –order autocorrelation does not exist

H1 = First – order autocorrelation exist

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 1.7, 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 | | | |

Source: World Bank Economic Indicators on Ghana, 2017
With Durbin-Watson statistic as 2.56587

**Table 1.8 , Showing 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 |

Source: World Bank Economic Indicators on Ghana, 2017
The DW 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 main objective behind every economic growth is to have sustained and self-sustaining and favourable impact on the citizens of a country. The research analysis from the primary data collected indicates existence of statistically significant association between middle-income country (Ghana) and the level of savings of individuals. Meaning that, citizens increased their level of saving as a result of middle – income status of Ghana.

It is advised, however, that the interest of citizen welfare should be paramount for government whenever any economic policy is scheduled for implementation. That is, citizens would like to see a positive impact of such economic policies on their living standard and on other socio-economic parameters. Thus, economic progress should be measured on the impact it has on the citizens in that economy. The above research therefore, seeks to find out the impact of Ghana's economic policies as a middle-income country, on individuals in the Volta Region of Ghana in particular.

### 4.11 Recommendation

It is recommended, that managers of the macroeconomy should improve on the social amenities in rural and urban areas. Water, electricity, good transportation systems as basic social services should be provided for the citizens at affordable cost. It helps citizens cut down expenditure on some of these utilities and channel the rest of the amount into more savings. The impact of the growth of the economy must reflect on the social services that the government provides. Each community's social needs should be identified, analysed and steps should be taken to provide these social needs at an affordable cost. The Central Bank of Ghana should put measures in place to curtail excessive inflation in the economy to protect disposal income, which should increase the level of savings of citizens. The provision of the basic needs can also facilitate businesses and community activities and make life pleasant for citizens.

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