

Can culture influence economic growth?: An examination
of the impact of cultural factors on economic growth in
developing economies

By

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for the degree of Doctor of Philosophy at the University of
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DECLARATION

Concurrent registration for two or more academic awards

I declare that while registered as a candidate for the research degree, I have not been a registered candidate or enrolled student for another award of the University or other academic or professional institution.

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ABSTRACT

Abstract of the thesis by Saston Arthur Kanthonga for the degree of Doctor of Philosophy titled "*Can culture influence economic growth?: an examination of the impact of cultural factors on economic growth in developing economies*"

The thesis has investigated if cultural factors influence economic growth differences among countries. It was motivated by the intriguing question as to whether the gap between developed and developing countries is widening. Technically speaking, some countries which were regarded as underdeveloped three or four decades ago are now regarded as developed as articulated in the introduction to chapter 1. On the other hand, Sub-Saharan African region has failed to register convincing economic development (Seguino and Were, 2014, p. 1)

The mixed methods design used in this thesis engaged distinct frameworks of both quantitative and qualitative paradigms to answer the research questions within this thesis. Implementing mixed research design in this thesis enables the investigation of how each variable in the study, environments, and institutions interact with each other in different contexts to produce measured effects. For instance, the study examined two sub-samples of developed and developing countries, 6 countries in each sub-sample. Further, the study also examined 18 representative Sub-Saharan countries to answer the research question. Lastly, a multi-case study of Malawi and Botswana was undertaken. The first two contexts of study used secondary data analysis. The multi-case study was used to drill down deeper than secondary data analysis allowed.

This thesis focussed on the interaction between culture and economic growth. The literature review indicated that the impact of culture on growth is not particularly well articulated at present, and therefore this thesis seeks to make a contribution to this aspect of theory and practice. In addition, to the extent that culture has a significant impact on growth potential and its realisation, culture is not homogenous in Sub-Saharan Africa. This will have potentially significant impact upon different countries, and should be taken into consideration by governments and development agencies seeking to promote economic growth and sustainable development across the African continent.

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DEDICATION

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ABBREVIATIONS

ACB	Anti-Corruption Bureau
AS	Afrobarometer Surveys
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CHI	Coefficient of Human Inequality
DESA	Department of Economic and Social Affairs
DFRA	Divorce and Family Relations Act
EFA	Exploratory Factor Analysis
ESMM	Explanatory Sequential Mixed Methods
ESS	Explanatory Sequential Scheme
EU	European Union
GATT	General Agreement on Tariffs and Trade
GDI	Gender Development Index
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GFCFPS	Gross Fixed Capital Formation in Private Sector
GII	Gender Inequality Index
GNP	Gross National Product
IMF	International Monetary Fund
MCFTC	Malawi Competition and Fair Trade Commission
MDGs	Millennium Development Goals
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PPP	Power Purchasing Parity
PWE	Protestant Work Ethic
R&D	Research and Development
RMSEA	Root Mean Squared Error of Approximation
RQ	Regulatory Quality
SAPs	Structural Adjustment Programmes
SD	Standard Deviation
SSC	Sub-Saharan Countries
TFP	Total Factor Productivity
TN	Tiger Nations
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
USA	United States of America
VAW	Violence Against Women
VIF	Variance Inflation Factor
WB	World Bank
WC	Washington Consensus
WDIs	World Development Indicators
WESP	World Economic Situation and Prospects
WVS	World Values Surveys

CHAPTER 1: THESIS INTRODUCTION

1.1 THE MOTIVATION AND JUSTIFICATION OF THE THESIS

Countries grow at different rates and, we have an incomplete understanding of how all of the relevant factors contribute to differential growth paths. The automatic catch-up process suggested by neo-classical theory does not seem to be a smooth process whereby on occasions, it may go into reverses such as Greece, and Portugal. Whereas for other nations, catch-up can advance very rapidly or, like Sub-Saharan Countries (SSC), it may be delayed or even struggle to occur at all. Whilst much is known about the various factors which influence this growth potential, there are indications that a wide range of factors may be at play and therefore developing nations, seeking to raise the future prospects for their citizens, may wish to consider the implications of this wide range of factors when designing their social and economic strategies. Weaknesses with existing growth models may stem from their theoretical frailties or incomplete specification and missing variable bias. This thesis, therefore, seeks to contribute to the existing literature by including additional factors to standard endogenous growth theory, and secondly, by using comparative analysis to identify critical differences between developed and developing economies, but additionally between fast and slow growth variants. The intention is to identify which variables tend to achieve superior outcomes given different environments and different levels of initial factor endowments. In particular, this thesis examines the impact that cultural variables may have on economic growth.

Countries with high standards of living are classified as developed countries while those with lower standards of living are classified as developing countries (United Nations, 2013; World Bank, 2016). According to UNDP (2011), the average per capita Gross National Product (GNP) for developing countries in 1980 was \$260 and in 2011 was \$1,671 while the average per capita GNP for developed countries in 1980 was \$10,320 and in 2011 was \$24,314. These numbers suggest that the absolute gap is widening, but the relative gap was closing from 2.5% in 1980 of the developed country average income per capita to 6.9% in 2011 (Seligson and Pásse-Smith, 2008; Watkins et al., 2006). That seems to suggest that the widening gap between developed and developing countries depends on how cross-country income comparisons are made. For instance, Dowrick and Akmal (2005) claimed that using comparison by exchange rates across countries the income gap differences appear to increase. However, they also observed that using purchasing power comparisons showed that the income gap fell across countries. The falling of income gaps between developed and developing countries are also reported in the literature. For example, Barro (1997) researched 100 countries between 1960 and 1989 period, and he concluded that the income gap

between developed and developing countries is converging. Similarly, Bond et al. (2001) claimed that a convergence of income gaps between developed and developing countries is about 2.5% each year.

In contrast, Berry et al. (2014:4) investigated how income per capita in power purchasing parity (PPP) in dollars changed from 1977 to 2010 in 52 rich countries and 137 developing countries. They observed that the income growth difference grew steadily until 2008 and this gap remained large in both absolute and relative terms. Similarly, Baddeley (2006, pp. 395-396) argued that even though globalization increased capital flows, trade flows, and debt mainly in developing countries, there have been small changes in income inequalities between nations. For example, after Baddeley investigated in 107 developed and developing countries, he concluded that there had been limited convergence and limited equalization in the distribution of worldwide income between developed and developing countries. The conclusions of distinct studies of Berry et al. (2014) and Baddeley (2006) are also confirmed by Klugman (2010, p. 42), the human development report of 2010 that there has been a substantial divergence in income among countries. This report covering the period from 1970 to 2010, indicated that developed countries increased income by 2.3% while developing countries by 1.5%. All the points raised above seem to suggest that different nations within regions appear to have very different growth trajectories. For example, extreme poverty measured by living on \$1.90 in South and East Asia has fallen below 20% while in Sub-Saharan countries remain at 42% (World Bank, 2016b). Consequently, developing countries particularly the Sub-Saharan region remain the least developed region in the world (Malamud and Assane, 2013). The challenging question is why is it that some countries are prospering while others are failing to prosper?

1.2 WHY SOME COUNTRIES FAIL TO CATCH UP WHILE OTHERS HAVE CAUGHT UP?

Generally, a number of factors have been offered to explain income disparities among countries such as the importance of saving, investment, capital accumulation and the repositioning of surplus labour from agriculture sector to industrial and service sectors as articulated by classical and neoclassical economists (Barro, 1991; Malthus and Appleman, 1976; Marx, 2004; Mill and Backhouse, 1997; Ricardo, 1817; Smith, 1776; Tsoulfidis, 2011). The assumption of neo-classical theory as advocated by Solow 1956 and Swan 1956 that countries with lower capitals grow faster than countries with larger capitals seems to work in developed countries than in developing countries. Hence, the catch-up the assumption of neo-classical theory seems not to work for all countries in the same way and at the same time (Nelson and Pack, 1999, p. 424; Kim and Nelson, 2000). One option might be that neo-classical theory is flawed and that

catching up is not so automatic. That is what Keynesian theory would suggest, because cumulative causation according to Myrdal (1957) may reinforce existing competitive advantages. Alternatively, else it might be due to the neo-classical models being insufficient possible due to missing variable bias. Therefore, there is more room for countries to develop their growth strategies and hence understanding the determinants of growth is an essential step in their development programme.

Countries which were regarded as underdeveloped three or four decades ago are now regarded as developed, such as the East Asian countries South Korea, Taiwan, Hong Kong, and Singapore (Guta, 2011, p. 22). On the other hand, there are other regions in the world such as the Sub-Saharan region which has failed to register convincing economic development (Oyelaran-Oyeyinka, 2006b). It is despite the introduction of new international economic orders by international organizations such as International Monetary Fund (IMF) and World Bank (WB) (Brandt, 1980; South Commission, 1990; Dube, 1988; Morawetz, 1977; Thirlwall, 2011). Also, *European Union* (EU) countries such as Portugal and Greece, whose catching-up to the EU average has stalled and gone into reverse also highlights that countries seem to have different determinants of economic growth. Could cultural differences among countries explain economic disparities? Its is the thesis purpose to find out if differences in cultural context among countries explain productivity differences leading to income disparities. These factors seem to be excluded, and as a result, the residuals seem very high. That being the case, this thesis is going to investigate whether cultural factors influence economic growth disparities among countries.

1.3 AIMS AND OBJECTIVES OF THE THESIS INVESTIGATION

This thesis aims to investigate the impact of a broader range of potential determinants of economic growth and to identify potential causes of income disparities between developed and developing nations. Section 2.2 in chapter 2 explains what economic theories have offered to explain income disparities among countries. Also, the same section gives the reasons why economic theories fall short of the solutions to income disparities among countries. One potential reason may be that they suffer from missing variable bias and therefore the models used in this thesis extend the basic endogenous models to include political, institutional as well as cultural factors. It is in broadening the range of potential determinants, and by comparing the results between developed, developing, Sub-Saharan African, high growth and lower growth sub-sets that the thesis hopes to contribute to knowledge. Therefore, this research implemented explanatory sequential mixed methods (ESMM) so that cultural factors can also be included in the models for this research to investigate income disparities among countries thoroughly. This design has a dynamic element that considers and interrelates multiple components of the approaches to the investigation rather than

emphasizing one particular way in the investigation as suggested by (Creswell and Plano Clark, 2010; Maxwell and Loomis, 2003). This type of scheme is ideal to link the findings of testing the theory and the context representing the phenomena being investigated. Hence, a combination of quantitative and qualitative approaches within sequential explanatory scheme complement each other and permit a more robust analysis, taking advantage of their strengths of quantitative and qualitative approaches as recommended by (Greene et al., 1989; Greene and Caracelli, 1997; Miles and Huberman, 1994). See more explanation in chapter 3 section 3.2.

Therefore, this thesis sought to identify cultural factors that enhance or hinder economic growth in countries. Grouping countries implement this objective in chapter 4 in developed and developing countries. These developed and developing countries were further grouped into slow growth and fast-growing countries respectively. The grouping of countries helped to control the bias of the performance of variables due to development level and economic growth status of the countries. Hence, the identification of cultural variables whether they promoted or hindered economic growth in chapter 4 was further explored by using different sources of cultural variables in chapter 5. The differences in the performance of cultural variables in developed and developing countries in chapter 4 could agree with Guss et al. (2010) who noted that cross-national differences were noted in all complex problem-solving strategies and task-specific differences. That is to suggest that individual skills in solving problems are cultural specific determined by ecological and socio-political context. Similarly, Hedden et al. (2008) observed that cultural differences in dimensions of culture influence brain functions and dispositions differently. It seems to suggest that all human undertakings are culturally specific. Hence, the other objective of this thesis is to detect what cultural values promote social, economic and human productivity in the countries. This objective tries to answer some questions raised above like “what causes productivity differences among countries. That embraces cultural variables that hinder economic, social and human development in the mainly Sub-Saharan region. The final objective is to identify the type of education that could help to inculcate in citizens values that are important for enhancing economic, social and human capability in mainly the Sub-Saharan region. In order to accomplish the purpose of the investigation, the thesis is structured as demonstrated in Figure 1.2 below.

1.4 CONFLICTING VIEWS

It is observed that classical and neoclassical theories have provided to policymakers wisdom to reduce economic disparities across countries, but there are no convincing results to explain the inequalities phenomenon among countries. For example, Easterly (2007) claimed that economists appear to know the answers to

economic development. He, however, noted that the answers have been changing from time to time. From 1950's to about 1970's economists generally emphasized more on capital accumulation (investment). Hence, policies encouraged developing countries borrowing money from international institutions to build infrastructures in the developing countries. However, the results were unconvincing, then came the introduction of *Structural Adjustment Programmes (SAPs)* through 'Washington Consensus' (WC) emphasizing free markets, open to trade, and reducing deficits. This too did not deter underdevelopment in developing countries (Mkandawire and Soludo, 2003). Another reform emphasized the absence of appropriate institutions as an explanation of underdevelopment. The developing countries were supported in the introduction of democracy, neo-liberal rights, property rights, contract enforcement and reduction of corruption. All these brilliant ideas or policies according to Keynes even though they are powerful and have tremendous influences are defunct, yielding to mixed results (Keynes, 1936, p. 383). Further, Easterly (2006) gave an example of SSC received more foreign aid but have failed to catch up with developed countries. Ironically, the tiger nations (TN) namely: Japan, South Korea, Taiwan, Singapore, and Thailand, received less aid but some of these nations have expertly matched or exceeded average GDP per capita for developed nations, whereas others may not have done so but have closed the gap appreciably.

Despite previous researchers paying less attention to cultural factors as explainers of income disparities, a growing number of researchers have pointed out the relevance of cultural factors in explaining economic growth differences across countries. For example, *Protestant work ethic*¹ (PWE) or McClelland when extending the potential influence of cultural variables beyond those of religious belief and into more general ethical values, cultural norms, and beliefs.

Despite the support he receives from social sciences through annual citations, Schatz (1965) together with Giljeard (1989) criticised McClelland's association of need of achievement² and economic growth without using conventional economic techniques, and they claimed that need achievement did not cause the rate of economic growth. In contrast, Freeman (1976) in her conclusion supported McClelland's claim that the need for achievement is essential in explaining economic differences across countries. Despite the criticisms leveled against the Protestant work ethic and need for achievement as determinants of differences in economic growth across countries, the

¹ People pursue wealth and material gain for its own sake rather than out of necessity (Leong, Huang & Mak, 2014:305) .

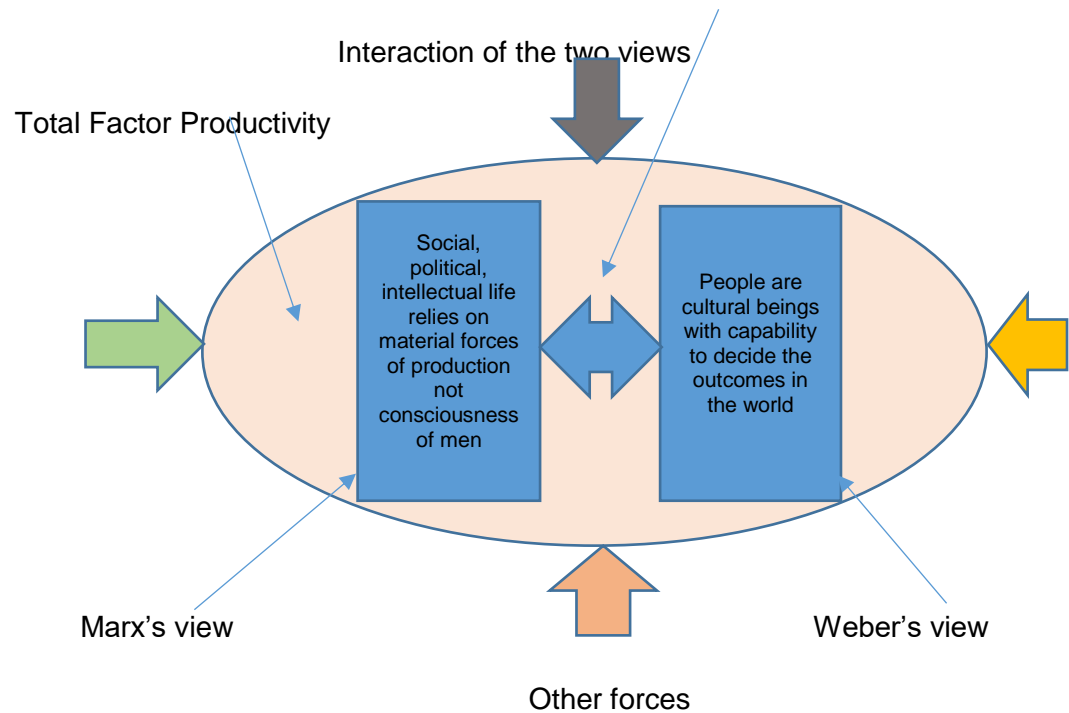
² Being creative or conforming to prevailing standards (Freeman, 1976:816)

claim that cultural factors are vital in explaining income per capital across countries persists.

1.5 PRODUCTIVITY DIFFERENCES AMONG COUNTRIES

Throsby (1999) lamented that economists' differentiation of the three forms of capital namely: physical capital, human capital and natural capital give unconvincing answers to productivity differences of countries. For instance, economic variables such as physical capital, human capital, and investment are alleged to be important for explaining economic growth as observed by Levine and Renelt (1992), though their definitions of capitals are debatable. For example, Jackman and Miller (1996) claimed that capital definitions disregard the effects of cultural values have on physical capital and human capital. Likewise, Costanza and Daly (1992) also raised concerns on the capital definitions. It is pointed out in the literature that residuals (TFP) contribute more to countries' productivity than economic factors (Hall and Jones, 1996, 1999; Hulten and Isaksson, 2007; Mankiw et al., 1992; Turner et al., 2007). Equally, social capability, geographical locations or cultural values influence and shape socio-economic conditions and economic life as advocated by (De Long and Summers, 1993; Abramovitz, 1956; Desdoigts, 1999). Also, Maridal (2013) summarised his research on culture importance to economic development in two ways: he said that culture contributes to economic growth through cultural traits of motivation and secondly, through the traits that form social capital. It appears to suggest that culture is the backbone for productivity which is claimed to contribute more to economic development than traditional economic factors. Probably, the views of both Marx, 1859; Weber, 1904 presented in Figure 1.1 below explain better what has been highlighted in this sub-section.

Figure 1.1: Marx and Weber views interaction determine productivity



Notes. Marx's Material forces of production form social political and intellectual life. While Weber's view considered that culture has effects on human beings' capability of determining their future.

Thus, economic disparities across countries might be due to differences in productivity formed from ideas, knowledge, work attitudes, beliefs, and skills provided by culture and production forces. In other words, the social reality of human interaction depends on the information provided by culture, and not only on the individual rationality as proclaimed in the mainstream economic theories. The Cultural setting of economies explains differences in productivity of countries, which implies that inefficient cultural factors reduce the productivity of the countries (Altman, 1993, 2001; Gifford Jr, 2005; Gifford, 2009; Nisbett, Peng, et al., 2001).

1.6 CULTURAL CONTEXT VERSES PRODUCTIVITY

The models in chapter 3 section 3.4.1 assume that economic factors' interactions occur in the context of cultural factors represented by A in equation (1) in the same section interpreted as Total Factor Productivity (TFP). It appears to be contrary to the mainline economists who emphasize in scarcity and allocation of insufficient resources. For example, the rational model in classical and neoclassical economic theories disregards any influence from the culture in an individual's economic decisions and behavior. The rational model assumes that individual consumers have unlimited wants while the companies (enterprises) utilize technology to meet the needs through the law of demand and supply. However, the assumption of the rational model that people behave and make similar decisions in all countries fails to illuminate the

reality of economic disparities among countries. For instance, Becker (1977) claimed that the economic approach could explain most elements of human behavior in different situations and contexts. That is a rational model. However, the same author in his book *Accounting for Tastes* Becker (1996, p. 3) acknowledged that culture and symbols have a great influence on human behavior. Becker further claimed that preferences in the individual utility function should include social capital and personal relationships. This agrees with Weber (1922) who claimed that humans make rational decisions by (1) instrumental rationality, (2) value and belief-based rationality, (3) habit, and traditions, and (4) emotions. He further endorsed that the combinations of these lead to concrete action. This being the case, culture cannot be taken out of economic development concept or else development will be a means of advancing pre-ordained structures or methods to developing countries. This signifies that the economic development of a country springs from the capability of its people imbued with cultural values which enhance economic development. At the same time culture can treasure what Banfield, (1958) hypothesized as '*backwardness*' which is defined as

“a function of high levels of amoral familism according to which the norm is to maximize the material, short-run advantage of the nuclear family; assume that all others will do likewise” (Banfield, 1958, p. 85).

In this regard, culture as context provides the foundation of people's development of values endogenously passed on from generation to generation. That is to say that culture provides the meaning of life to people within that culture. Moreover, a resource people get capacity from to encounter the challenges within their contexts. However, this resource can be restocked through experience and investment in quality education appropriate for the context. Nonetheless, Putnam (1993) claims that culture fundamentally takes a longer time to change. However, according to Kaplow and Shavell (2007) moral rules and values are malleable and are necessary for a rational choice. While in the same vein, Tabellini (2008) argues that cooperation among people is traded between material incentives and individual values mainly coming from the norms of the society. He further claims that endogenous values engage in both a forward and backward process by highlighting that parents can pass values to children by choosing education for their children. However, at the same time, parents can adapt to choices of education for their children due to future environments. Hence, it is possible for values to gradually change due to historical features of the external environment (p. 4). In the same way, Aristotle, (350 BC) claimed that the legal system makes citizens behave well by inculcating habits and in so doing good institutions are formed. That seems to suggest that using human capital that is restricted to education attainment fails to account for the cultural skills, norms, values, ideas that informs an individual's behavior.

1.7 STRUCTURE OF THE THESIS

In order to meet the primary goal of the thesis, the chapters are interconnected as illustrated in Figure 1.2 below. Chapter 1 has explained the motivation of the thesis and its justification. Moreover, has reviewed evidence about why some countries seem to catch up while others fail. It has also defined the aims and purposes of the thesis. Chapter 1 also reviewed literature regarding productivity differences among countries in the light of cultural values. Chapter 2 outlines the available evidence produced by previous studies about the analysis of growth determinants and it does so by including insights drawn from the varying perspectives of different economic models such as classical and neo-classical theories, and endogenous theory. It reviews the evidence about standard (macro) variables, but also political, institutional and cultural variables, that different studies have indicated may have a significant impact upon the growth potential and development path realized by different nations. Moreover, finally explains the concept of culture and its relevance to economic growth in countries.

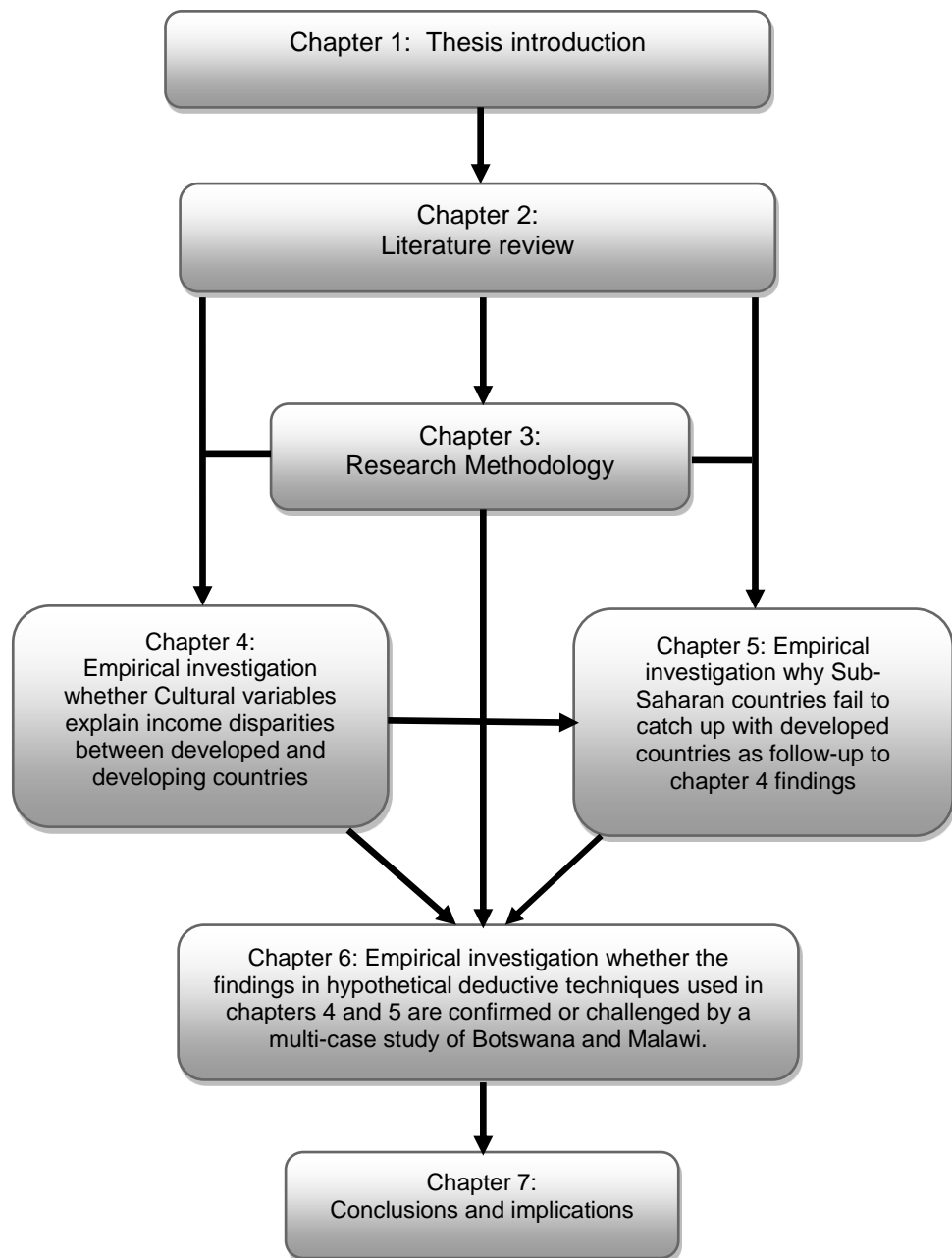
Chapter 3 presents how the thesis investigation was carried out and how the data of the variables were collected and sourced. The model advanced in this study incorporates traditional, institutional and cultural categories of variables and hypotheses for chapters 4 and 5 are formulated in sub-section 3.2.2 in respective categories. This model uses Ordinary Least Squares (OLS) technique that makes it possible to obtain unknown parameter (coefficient) for each independent variable due to *ceteris paribus* interpretation. The OLS technique only applied to chapters 4 and 5. The findings in these chapters were followed up by a multi-case study of Botswana and Malawi as illustrated in Figure 1.2 below. ESMM was employed to investigate the phenomenon adequately by using both quantitative and qualitative approaches. This is in line with Gable (1994) who claimed that combined methodology has recently attracted more attention to explaining the social phenomena causing different economic development performances among countries. All in all, the chapter explains the procedures followed in the construction of knowledge relevant to the questions designed for the investigation.

Chapters 4 and 5 are both hypothetical deductive techniques chapters that follow the assumptions of a quantitative approach to research. Hence, both chapters' analysis techniques follow the same procedures. However, they have remarkable differences. For example, chapter 4 focussed on 6 developed and 6 developing countries as the context of the study and used World Values Surveys (WVS) as sources of cultural variables. On the other hand, chapter 5 followed up the findings in chapter 4. The investigation in chapter 5 focused on 18 Sub-Saharan countries and used data for cultural variables from Afrobarometer Surveys (AS). In both chapters, countries were

further grouped into slow growth and fast-growing countries. This was done to control the bias of the performance of variables due to economic development level or growth of the countries. The OLS technique was used to see which variables in all the three categories significantly enhanced or hindered gross domestic product (GDP) per capita in the countries.

Chapter 6 is a multi-case study of Botswana and Malawi. This chapter is designed to either confirm or disapprove the findings in chapters 4 and 5. Both Malawi and Botswana are in the Sub-Saharan region. However, these countries have different economic growths. For instance, Botswana is in the fast-growing group while Malawi in the slow growth group. This chapter is very different from chapters 4 and 5 regarding the approach to the techniques for analysis of data that falls within the umbrella of the qualitative approach. That being the case, the results and analysis of this multi-case study are compared to the findings in chapters 4 and 5. This means the sources of data of the variables or findings in the previous chapters will be different from those used for model estimations in chapters 4 and 5. Chapter 7 concludes the study and briefly discusses the empirical findings in chapters 4, 5, and 6. It does also reflect on the implications of the findings of traditional economic theories. Different from the expectations of the traditional economic theories such as neo-classical theory highlights the contribution of this study to knowledge. This chapter also highlights the limitations the study faced, hence, some suggestions for further research.

Figure 1.2: Structure of the thesis



Notes. The thesis consists of 7 chapters

CHAPTER 2: ECONOMIC GROWTH VARIANCES AMONG COUNTRIES

2.1 INTRODUCTION

Economic disparities among countries as explained in chapter 1 might be attributed to differences in TFP³ formed from cultural values and production forces. In other words, the social reality of human interaction depends on the information provided by culture, and not only on the individual rationality as proclaimed in the mainstream economic theories. A series of studies have, in fact, pointed to an observed link between cultural factors and TFP, in that inefficient⁴ cultural factors lead to lower TFP (Altman, 1993, 2001; Gifford Jr, 2005; Gifford, 2009; Nisbett et al., 2001; Nisbett, 2009).

The significance of this thesis addresses the gaps observed in the literature. Moreover, an additional point of interest in this analysis is the intriguing question as to whether the difference between developed and developing countries is widening. Technically speaking, some countries which were regarded as underdeveloped three or four decades ago are now considered as advanced, such as the East Asian countries South Korea, Taiwan, Hong Kong, and Singapore (Guta, 2011). On the other hand, there are other regions in the world such as Sub-Saharan African countries which have failed to register convincing economic development Seguino and Were, (2014, p. 1) that GDP per capita growth rates in the region are on average constant at less than a third of 1% every year. Unconvincing performance in this region seems to persist despite the introduction of new international economic orders by international organizations such as IMF and World Bank (Brandt, 1980; South Commission, 1990). This phenomenon reflects the explanations provided by both theoretical and empirical explanations as to why there is income per capita disparities among countries in the different regions of the world. In this regard, the reality of poverty and inequality of billions of people in developing countries provides a challenge to the methods, theories, and policies used in dealing with the escalation of the gap of economic development between developed and developing countries. One of the ways indicated in literature of coping with the situation is that after the devastating World War II, countries co-operated in instituting international bodies like WB, United Nations (UN), IMF and General Agreement on Tariffs and Trade (GATT) primarily to reduce the gap between developed and underdeveloped countries (Dube, 1988; Morawetz, 1977; Thirlwall, 2011). It is more than a half a century ago since the end of Second World War, but the income

³Total Factor Productivity

⁴ Cultural values that hinder economic growth

disparities between developed and developing countries seem to be widening as explained in chapter 1. To meet the aims and objectives intended for the study, the organization of sections will be as follows: Section 2.1 introduces this chapter whereas section 2.2 deals with how economic theories explain economic development differences. Are these theories applied universally to achieve economic development by countries? This section explores more on causes of economic differences among countries theoretically. In section 2.3 Culture definitions are presented, and a suitable definition fitting to the purpose of the study is adopted. The chapter also provides the concepts of culture to be tested whether have any significance in explaining income disparities among countries or not. Section 2.4 will introduce the claim that human capability interacts with environment verified by historicity, geography, colonialism, and slave trade assertions. In this section definitions of the terms will be given to justify the claim that human capability determines the success of societies. Furthermore, section 2.4 explains the differences between formal and informal institutions. This section also explores how these institutions impact on economic growth in the countries. The chapter also examines what causes capability differences in dealing with changing and challenging global environment. Could culture play a role in capability differences? Section 2.5 focuses on globalization and economic growth in the countries. Also, explores how people interact with an aggregate of surrounding things, conditions, and influences which determine countries' economic success. Finally, section 2.6 presents eclectic rationale of things that determine Total Factor Productivity (TFP) differences among countries. This section also provides the connection of the reviewed literature and the thesis's methods utilized to test the concepts explanation of economic growth differences among countries. In summary, all the sections highlighted above will provide the premises of the study to answer the thesis question.

2.2 THEORETIC EXPLANATION OF ECONOMIC GROWTH

Theoretical explanations of economic development in different countries illustrated by many theories such as aggregate demand by Keynesian growth theories (Dosi, Fagiolo and Roventini, 2010; Dutt, 2010; McCallum, 2009; Vaona, 2012). But, Keynesian also explained about the multiplying effect. However, he cautioned that saving and investment are not connected. For instance, in his general theory, he claimed that no relationship unites decisions to refrain from current consumption with decisions to make available future consumption (Greenwald and Stiglitz, 1988, p. 122; Harcourt, 2008, pp. 185-197). And of course, in more recent studies there has been the investigation into political aspects that are incorporating institutions in the growth models (Aghion, Alesina and Trebbi, 2004). However, in this study, the focus is on the three theories namely: classical, neoclassical and endogenous theories.

2.2.1 Classical theories

One of the key proponents of classical theory is Smith (1776) who claimed that differences in economic development among countries are owing to land, labor and capital production factors. Smith expounded that these production factors contribute to economic development of the nations as follows: firstly, he claimed that growth in labor and the accumulation of capital causes the increase in production, hence the rise of nation's wealth. Secondly, he claimed efficiency in production as a result of the division of labor and technology increased the economic growth of the country. And lastly, the increase in new markets due to international trade and other factors mentioned above determined the nation's increase in wealth. The competition among the individuals is what Smith called 'invisible hand' that led to the success of the societies. He connected the pursuit of profits of individuals to the society's success in that the later came as a result of self-interests of the individuals. That suggests that the competition between individuals for individual gain could be compared to competition among firms or countries for wealth accumulation. Hence, the competition leads to better ways of production and discovery of new markets for the creation of wealth. Nevertheless, within classical economists, there are different views concerning the creation of the wealth of the countries. For example, Thirlwall (2011) observed that Malthus raised suspicions on improvement in efficiency due to the division of labor and technology as the cause of economic growth. Malthus claimed that due to population growth and diminishing returns in agriculture, countries could oscillate around the subsistence level, while Ricardo like Smith supported the principle of capital accumulation as the determinant of profits or growth. He, however, suggested that profits could be squashed as a result of rents to the landlords and subsistence wages (Ricardo, 1817). And he suggested that food prices rose as a result of diminishing returns from land and increasing marginal costs (Thirlwall, 1999). Despite the views expressed by Malthus and Ricardo, scientific discoveries and technology multiplied production outputs more than anticipated by Malthus and Ricardo (Nafziger, 1997). The rivalry competition between individuals, firms, and countries as claimed by Smith appears to persist regardless of the scientific discoveries and technology advancement in the world. For instance, Marx (1847) claimed that 'inner contradictions' of capitalism that is 'rival competition' among countries will lead to lower profits and degradation of workers. This claim is opposite to the reality that developed countries have continued to expand while the developing countries are bound to the outskirts of development. One of the reasons could be ascribed to what Marx (1906) proposed that

"The battle of competition is fought by cheapening of commodities. The cheapness of commodities depends, *ceteris paribus*, on the productiveness of

labor and this again on the scale of production. Therefore, the larger capitals beat, the smaller" (Marx, 1906, p. 626).

Classical theories view of competition as dynamic other than static appears the most appealing claim, but self-interests of individuals as the source of societies' welfare is open to criticism. For it is through the concept of competition that the organization of self-interested individuals take place. Commendably, the mechanism of the competition process presses on towards equilibrium of profits and losses until adjustment takes place. On the other hand, a rational model assumes that an individual uses available information about different courses of action, then outcomes can be ranked according to their usefulness. The best usefulness outcome for the individual is also the best outcome for the society. However, the cause of welfare of the society is debatable such that some scholars advocate rational model while others observed that volition and actions of the people in different societies or countries determine the welfare of the society (Schumpeter, 1934). Nevertheless, the common ground would be as suggested by Gintis (1972) that economic activity has development effect on almost every aspect of social life although individual welfare depends on the community, work, and environmental structures and the individual psychic development. At some point, Mill and Backhouse (1997) acknowledged that an economic man partly purposed in maximizing wealth but at the same time there are constraints of aversion to laboring and subjection to leisure. The latter leads to underdevelopment which is opposite to creation of wealth as suggested by (Blaug, 1992; Bowley, 2013). While on the same issue, an individual's rationality fluctuates with time due to the stochastic environment, therefore, the rational model appears to limit the cognition abilities of people. And its assertion of utility-maximization appears to be non-falsifiable (Ellickson, 1989). Taking into consideration that past decisions affect future expectations, then, classical theories fail to provide a statistical model that would consistently give the best probabilities of future outcomes (Greenwald and Stiglitz, 1988). Besides, experience appears to be contradictory to the claim of self-interest of classical theories. For example, Elster (1989) argued that some helping behaviors expect no good return when they have done the helping, such as children helping the parents in old age. Furthermore, many altruists give to charities anonymously, suggesting that their motivation is not prestige. Consequently, Hirschman (1984) claimed that benevolence just like self-interest explains economic behavior. In this regard, classical economic theories appear not to offer a convincing explanation of the causes of disparities in economic development among countries. Classical economists engaged three types of capital namely: land,

labor, and human-made capital⁵. But, later on, 'human-made capital' was adopted as mere 'capital.' These different forms of capital (land, labor, and capital) determined the production activities in each way to satisfy the needs and also the creation of wealth. The production function expressed as:

$$Y = f(K, L, N) \dots \dots \dots (1)$$

They claimed that capital, land, and labors were the critical production factors and differences in countries economic development where as a result of the use of these factors. The next section will engage neo-classical theories explanations to economic development differences among nations.

2.2.2 Neo-classical theories

In contrast to classical theories, neo-classical theories advocate static equilibrium in the conception of competition with no influences from history (Tsoulfidis, 2011). In other words, neo-classical theories regard imperfections of markets such as excessive price cutting, uncertainty, domination, and oligopoly⁶ deviations from the perfect competition. In the ideal market, the producers and consumers do not affect the prices due to the numbers involved whether large or small. Therefore, product prices do not influence production productivity of firms, but firms increase or decrease their production output merely as a result of maximizing profit. It assumes that the concentration of competition is related to the producers' number or industry structure. But this appears to be contrary to the reality as expressed by Tsoulfidis (2011) that:

"The neoclassical description of competition as a state rather than as a process of rivalry is far from the harsh reality of the results of competitive behavior as is well known from the economic history of the last quarter of the nineteenth century" (Tsoulfidis, 2011, p. 8).

Tsoulfidis pointed out that the depression during the period of 1873-1896 led to the elimination of most of the companies that failed to compete due to excessive price cuts and concentration of capital. The inconsistency between perfect competition as proclaimed by neoclassical theories and current reality gives the impression only capable firms and developed countries could enjoy the monopolistic markets and not weaker firms or developing countries. Chamberlin (1933) argued that the real economic endeavoring is in nonconformity with perfect neoclassical competition, hence, the need for governments to correct these imperfections. Suggesting that the state of equilibrium is an ideal form that does not take into consideration the actuality aspect.

⁵ Produced or manufactured capital through the ingenuity of man to enable efficient production of goods and services

⁶ as minor

Another important aspect associated with neoclassical theories is the convergence element between developed and developing countries. Alternatively, the theory assumes that lower real per capita (GDP) predicts a faster growth rate than higher real per capita. In other words, assuming that all the conditions remain the same among countries except for the concentration of their capitals, then developing countries will grow faster in real per capita than rich countries (Solow, 1956; Swan, 1956). The models of growth developed by Swan and Solow highlighted that the growth rates of population and savings were determined exogenously; hence they claimed that higher growth rates of the population made the country poorer while higher growth rates of savings made the country richer. But in their aggregate growth model they used Cobb-Douglas production function which they formulated as follows:

$$Y(t) = K(t)^\alpha (A(t)L(t))^{1-\alpha} \dots\dots\dots (2)$$

Whereby $0 < \alpha < 1$ and in the equation (1) above Y = income; K = physical capital; A = technology; L = labour. The aggregate model above shows that for income growth to take place there has to be interaction among the variables of capital, technology, and labor. Firstly, the model predicts as highlighted above those countries with lower real income will catch up with those of higher real income due to diminishing returns of capital. Secondly, technology is suggested to be impacting on the economic growth which appears to suggest that in the absence of technology economic growth will vanish. The interesting part of the model is the claim that technology and population growth not produced by the model but are exogenous. In other words, the two variables that explain the real income growth rate made outside the model. The two assumptions claimed by the neoclassical theory are debatable. The next section will present the empirical findings on the convergence assumption.

2.2.2.1 Convergence between developing and developed countries

The claim that developing countries catch up with rich countries has been empirically investigated by Baumol (1986) who claimed that countries which were poorer like Japan and Italy managed to catch up with countries who were regarded developed that is the United States of America and Canada. Nevertheless, there are some objections to his findings such as the period engaged by Baumol (1986) in his research, namely the period between 1870 and 1950, appears to be plagued with unreliable data and this period's findings showed divergence instead of convergence according to (Abramovitz, 1986). And also the countries engaged in the research of Baumol (1986) only incorporated developed countries hence it is difficult to generalize his findings to include all countries (developed and developing countries). Furthermore, De Long (1988) accused Baumol's (1986) research of being selective in mining data thus why he managed to come up with convergence outcome. While in the same vein, Dowrick and Nguyen (1989) investigated the Organisation for Economic Co-operation

and Development (OECD) countries from 1950 to 1985. They noted that since 1973 the income levels among nations were not as healthy as normal income levels. On the other hand, their findings showed convergence since 1950. However, this convergence could be as a result of biasedness in the selection of data. Also, the authors found that the OECD countries caught up with each other in total factor productivity, and hence claiming the convergence among OECD countries.

Another side of convergence came with Abramovitz (1985) who highlighted that the historical experience of developed countries supports the neoclassical assumption that in the long run, less developed countries will catch up with the more developed countries. Concerning the forces behind this convergence, he referred to Gerschenkron (1952) who perceived that 'relative backwardness' was advantageous to the countries lagging behind in economic development. On the other hand, the countries who are leaders in economic development face challenges of keeping up with the pressure of maintaining the phenomenon of economic growth as presented by (Veblen, 1915). Therefore, to dismiss convergence would overlook the historical experiences of industrialized countries. Nevertheless, not all countries manage to achieve convergence assumption. For example, despite the availability of technology in developing countries and some other international support in the form of foreign aid these countries until now are failing to reduce the income per capita gap. Therefore, this gap in income per capita disparities between developed and developing countries demands further exploration. Exogenous factors such as technology, savings and growth population regarded as the critical determinant of real income per capita disparities among countries discussed in the next section.

2.2.2.2 Impact of technology, savings, and population growth

In equation (1) above A stands for technology and is one of the factors that contribute to the income growth in the countries. The other elements are savings and population growth. Mankiw et al. (1992) noted that in Swan-Solow model savings and population growth although exogenous determine the steady-state levels of per capita income. Therefore, different steady-states reached by different countries could be due to different saving rates and population growths. Mankiw et al. (1992) confirmed the predictions of the Swan-Solow model that saving rates made the countries richer while population growth caused the countries poorer, however, they criticised the model for failure to indicate magnitudes. On the other hand, Mankiw and his associates claimed that their findings showed that saving rates and population growth correlated with human capital. They further explained that the saving rates or lower population growth implied high levels of human capital and higher levels of per capita income while lower saving rates and high population growths indicated more moderate levels of both human capital and per capita income. Then they concluded that including the human

capital variable in their model lowers the estimated effects of saving rates and population growths. It implied that the augmented model of Mankiw and associates gave better explanations of differences in income per capita levels than the Swan-Solow model.

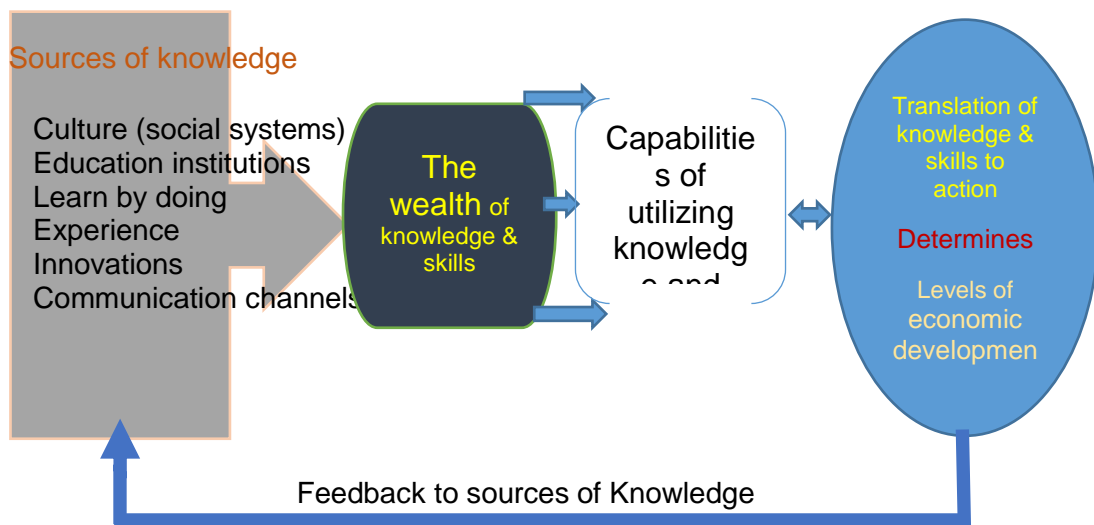
Furthermore, neoclassical theory proclaims that technology treated as exogenous enhances the effectiveness of the labor force; as a result, the output of products and income per capita levels increase. What neoclassical theory assumes is that technology is the same throughout the world; therefore, it is at disposal to be used by everyone. Nonetheless, Romer (1994) contested that technology cannot be the same in all countries for the reason that the flow of knowledge from the leader to the follower depends on people⁷. The implication is that the faster the dissemination of understanding the higher level of technology and the higher income per capita level in the country. Advancing technology, there have to be inputs that compensated so that the advancement continues. Of course, some discoveries are non-rival to the public good, but there are some which are rival to the public good to compensate for the costs incurred (Stiglitz, 1989). In this case, therefore, the technology could not be only exogenous as claimed by neoclassical theory. On the other hand, Nelson and Phelps (1966) argued that the progression of technology denotes the connection with education for the reason that more educated people are quicker in adapting to production techniques than less educated people. The author appears to suggest that schooling speeds up the process of technology diffusion⁸. Therefore, this being the case, it could be contended that differences in educational attainments in countries contribute to differences in the level of technology and the level of income per capita across countries. Rogers (1962) empirically tested if education has any effect on farmers in the United States of America. And he found out that the more educated the farmer was, the more the farmer understood and implemented programmes from the Department of Agriculture and the more the farmer developed new products. That appears to suggest that for non-rival technology to utilized in any country depends on the characteristics⁹ of people. Hence, assuming that technology will enhance labor force and capital efficiency equally among countries fails to consider the capacity ability differences among countries as indicated in Figure 2.1 below.

. ⁷It implies that the quicker people are in adapting to new changes the more the diffusion of knowledge.

⁸ Rogers defined diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system."

⁹ Qualities that includes human capital skills, education attainment, enterprising spirit and honesty

Figure 2.1: Capabilities in utilizing knowledge and economic disparities



Notes. Sources of knowledge are highlighted as the culture, education institutions, learning by doing, experience, and innovations. Hence, the capacity of using this wealth of consciousness determines the development levels of countries.

Figure 2.1 above shows a dynamic process that is endless, and this process is experienced differently across countries. It is a process that progresses in the creation of knowledge and the application of knowledge to meet human needs. Knowledge creation comes through many sources such as experience or learning by doing whereby skills can be improved by repetition of the same routines in the form of training (Kolb, 1984). Of course, there are different types of knowledge, for instance, Polanyi (1974) claimed that there is explicit and tacit knowledge. Explicit instruction is the type of knowledge that can be explained through language and symbols. While the tacit knowledge, is the type of knowledge that is hard to be communicated and he claimed that this type of knowledge is context specific and experientially earned. Also, Landes (1998) observed that in the midst of 1st World War French lost some key companies that were producing arms. As a result, the French sought external help from United States of America (USA) by sending them their blueprints of 75-mm field guns so that the USA can produce for them. This did not take place until the French's workmen were despatched to the USA to show the American how to make them. Therefore, Landes too confirms that knowledge can be context specific and challenging to be communicated until learned through experience. It seems to suggest that the application of ideas, education, and skills is critical to creating economic and social benefits for people to use. At the same time, knowledge or technology made in one context could be very difficult for other settings to apply and yield positive results. Rogers (2010) showed out that differences in capacities lead to differences in utilizing existing technologies, hence, differences in economic growth. The differences in

income per capita between developed and developing countries might be due to people's abilities, attitudes, and motivations. For example, Japan was underdeveloped at some point compared to industrialized countries like the USA, the United Kingdom (UK), Germany and France. But due to their cultural values like hardworking, work ethic, self-disciplined mainly after the 1868 Meiji restoration, they caught up in development with developed countries (Wilson, 1992). They eagerly invited skilled workers from developed countries who taught them how to do things they needed and sent them away when they did not need them anymore. They also sent their workmen to other developed countries to visit their factories and other areas of interest to learn and import skills to themselves. Aforementioned appears to suggest that unless the people in the developing countries have capacities to use the existing technologies, external help in the form of foreign aid cannot help. Inabilities of developing countries to utilize current technologies are further trapped in poverty on the assumption of the neoclassical theory of perfect markets and closed economy. It will be discussed more also in the next section.

2.2.2.3 Perfect competition markets and closed economy

Among the critical purposes of political economy is to deal with the production, allocation, and distribution of scarce resources. How this is achieved in the capitalist economy depends on the model of the perfect competition market as developed within the neoclassical theory. It is assumed that the market mechanism addresses the issues of demand, supply, resource allocation, price choice and welfare (Duff, 1997). Nevertheless, in the economy¹⁰ certain goods can be afforded to be produced at the expense of other products. And this creates the scarcity of goods, hence allocation problems (George and Shorey, 1978). But, neoclassical theory adopted perfect competition market as ideal in the distribution of scarce goods to various and different desires of consumers (limitless) in the real world. This model assumes that agents¹¹ will act in an economical way covered by the concept of rational choice. Generally, the perfect competition market model assumes the economy is made of independent consumers who are price takers, self-interested and sensible, no sacrifice for others and each decides the level of utility, independently, produce products at lowest costs for maximizing profits, each has perfect information. Duff (1997) noted that regulation of scarce resources could take many forms such as first served, a waiting list, basis on attractiveness and power. He claimed that Western countries adopted the neoclassical

¹⁰ Defined as the orderly system of agents, rules, and regulations that monitors production, distribution and consumption

¹¹ Could be individuals, firms and countries

perfect competition model as the best way of allocating the resources. Nevertheless, the assumptions of this model do not work on the principle of need but demand and supply, suggesting that any deviations from the perfect competition market model will be dealt with by price adjustments. The capitalist economy system embraced neoclassical theory assumptions highlighted above, and no one can deny the fact that this system has prevailed in the world. Almost all the developed countries welcomed the policy, and the order is being enforced to be operational in the developing nations by institutions such as the International Monetary Fund and World Bank to mention a few.

Despite the success of neoclassical theory suppositions, there are other elements pointed out in literature against the theory's perfect competitive market model. For example, taking the competition at world level, if knowledge spillover differs from country to country, it implies that Markets are not at the perfect match. One possible reason for this according to Dasgupta and Stiglitz (1988) is that markets are not at the ideal competition for the idea that the first entrant in the market will enjoy monopoly rents. The differences in the advancement of knowledge among countries will eventually widen differences in income per capita among countries. In other words, developed countries have better and advanced technologies that enable them to have optimal production processes denied to the developing nations. And this advanced technology will be deliberately limited to developing countries to gain returns from their investment in the advanced technology (Atkinson and Stiglitz, 1969). Therefore, differences in technologies will widen between developed and developing countries, which the perfect competition market model fails to reckon. On the other hand, Brohman (1995) and Keita (2009) both linked neoclassical theory to neoliberal approach and critiqued the frameworks for failure on the development strategy to developing countries. For instance, Brohman (1995) questioned structural adjustment and other neoliberal policy mechanisms enforced on developing countries for boosting economic development. All these programmes, he argued, were implemented in the developing countries without taking into consideration socio-cultural and political relations, the intersubjective realm of meanings and value in development, environment and the issues of sustainability. In the same vein, both Hirschman (1981) and Feldman (1987) stated that the perfectly competitive market model of neoclassical theory treated people as atomistic individuals held together by market forces. Hirschman (1981) argued that such an approach dispossesses people of their history, cultural traditions, and social relationships that permeates people beyond market exchange mechanism. Furthermore, Bruton (1985) claimed that underdevelopment in developing countries is due to the developed countries enforcing values and institutions like markets prevailed in the developed countries to developing countries. In other words, the way of doing

things in the West has is replicated in the developing countries to grasp development phenomenon. The people in the developing countries fail to use their intelligence in their cultural values hence need of replacement by better values that have worked in the developed countries. Nevertheless, Bruton (1985) pointed out that such an approach causes tensions and uncertainty among the indigenous people, hence no foundation to stand upon to compete in the competitive environment among countries. It appears that neoclassical theory advances that economic behavior is the same among people regardless of time and geographical location. In so doing, then, the approach is universalistic whereby economic rationality rule determines the optimal choices in all situations (Barnes, 1988).

In section 2.3 above it was argued that social and economic systems play an enormous role in the capacity development of people. Which appears to suggest that progress is not merely economic growth but many changes taking place in social relations and institutions, therefore, to dismiss mutual actions and relationships among people as advocated in the rational model of the neoclassical theory is to extinguish the capacity developing of people (Barnes and Sheppard, 1992). The development definition has also been explained by Todaro and Smith (2009) as covering a multidimensional process that incorporates the reorganization and reorientation of whole economic and social systems. Economic development embraces not only financial incomes and outputs but also changes in institutions, attitudes, customs, beliefs and organization structures. For example, Wicherts (2008) studied the plasticity¹² of intelligence of the Dutch males born between 1934 and 1964. He observed that those born in 1934 scored 20 IQ standard lower than those born in 1964. And then he suggested that the Dutch population had increased in population intelligence. This finding is commonly known as the Flynn effect and replicated in 13 other nations (Flynn, 1987). The central question at hand is what caused this difference in population intelligence between the periods? Generally, the answer could be accredited to genes inheritance, but people involved in the research between the periods belonged to the same nations respectively demands more explanations. Here is why the concept of development has to take a more incorporating process than only focussing on income outputs. Wicherts (2008) suggested environmental factors contributed to differences in population bits of intelligence between the years. That indicates that context matters regarding people's development. Thus why, despite the introduction of imperfect competition as the modification of neoclassical theory to incorporate reality into the analysis, the criticism of the approach persisted. For

¹² The property of something that can be worked or hammered or shaped without breaking

instance, Robinson (1933) admitted that the law of supply and demand as a theory for price adjustment fails to rectify the problem of monopoly¹³ and oligopoly¹⁴. In summary, Marrewijk et al. (2012) point out that when a firm does not take the price level at the market but instead strategically interacts with other firms and the market to maximize its profits, then the market is under imperfect competition. But, he admitted that the imperfect competition is in chaos for the reason that there are many ways firms can use not to take the level market prices. Thus why in perfect competition model the behavior of individuals or firms in the imperfect competition is merely regarded as deviations. Even though it is difficult to model the imperfect competition compared to the perfect match, it represents what is happening in the real world. In other words, the imperfect competition appears to correlate with the classical theory assumption of dynamic competition. See section 2.2 above for more information. Even though neoclassical theory model of the perfect match is easy to understand and explain the dynamics of economic workings, it overlooks the reality by merely taking fact as deviations.

Since neoclassical theory theoretical explanations of economic development appear to give positive results in the developed countries and adverse consequences in the developing countries, the search for the theory to explain the income disparities between countries continues. The convergence assumption between nations with the high concentration of capital and those with the low density of money is shown to predict well in the developed countries but not in the developing countries. The assumption that technology is the same in all countries in the world appears not to be the case due to differences in the characteristics of people. Furthermore, empirically Holtzeakin (1993) claimed that neoclassical theory's assumptions are consistent with their empirical results in their analysis. For example, for the author to show differences in economic development, he tested the role of investment rate on the productivity levels of the countries. And he observed that the productivity levels increased yearly as a result of the investment rate on capital. He did the same with labor rate and technology rate and claimed that they too contributed to differences in productivity levels among countries. Senhadji (2000) also ascribed differences in economic development to differences in physical capital. In other words, the accumulation of physical capital caused more growth other than the collection of human capital. Despite the positive empirical findings highlighted above, the rational and perfect competitive models valued by neoclassical

¹³ Happens when there is possibly one firm in a specific market. Due to the profit maximization, the company determines what prices to sell to the market which are far above the marginal costs of the products

¹⁴. This happens when there are few suppliers of the product in that one supplier's action could have a considerable impact on prices and its competitors.

theory in closed economies overlook real world realities in changing economic development performances. This being the case, the next approach to be explored in the theoretical explanations of economic development is the endogenous theory.

2.2.3 Endogenous theory

As stressed in section 2.2.2 above, neoclassical theory assumed that economic growth is exogenously determined by technology, saving rates and population growth. But in literature, there have been divergences as pertains to the differences in economic growth in different countries. However, more recent economists have endorsed endogenous growth models than neoclassical theory. Endogenous growth models are advanced by (Hall and Jones, 1999; Hansen and Knowles, 1998; Pack, 1994; Romer, 1990, 1994). The theory assumes constant or increasing returns to scale as an explanation of cross-country variation in income instead of decreasing returns as perceived by neoclassical theory. The critical element in most of the endogenous theory models is the human capital role as emphasized by Barro (1991) who investigated 98 countries from 1960-1985 and observed that the growth rate of real income per capita is positively related to human capital¹⁵. He also claimed that countries with higher human capital levels had the higher investment in physical capital and lower fertility rates. Furthermore, economic growth is in reverse relationship to the share of government consumption in GDP but slightly related to the percentage of public investment. Then, probably, what Barro (1991) says is that human capital enables people to do the right things concerning economic growth and deter things that impede economic growth. Similarly, Romer (1990) concluded that an investment in human capital would propel faster economic growth. He further explained that investment in human capital would enhance research projects regarded as the source of technological change. This puts human capital levels as key to economic development differences among countries. It should be noted that research projects are deliberate efforts by firms or nations to maximize profit. In other words, the investment in human capital enhances the production of new products and technology implying more economic growth in countries. Even though neoclassical theory anticipated that technology played an essential role of enabling physical and labor capitals' efficiency, its treatment of technology as exogenous overlooked the part of human capital in economic development (Jorgenson et al., 1987). It takes individuals, firms or countries to develop or innovate technologies through experimentation, refinements, and scientific investigations. Judd (1985) claimed that innovation is generally internationally accepted as one of the sources of economic growth through the introduction of

¹⁵ School enrolment rates

patents¹⁶. In other words, due to innovation achieved through investment in scientific investigations and experiences, there are no diminishing returns to physical and human capital.

2.2.3.1 Strengths and weaknesses of the endogenous theory

On the other hand, Pack (1994) challenged the endogenous theory's intellectual and empirical appeal. In the first place, Pack acknowledged that endogenous theory predicted and successfully tested the forces that enhance new technology and productivity. Specifically, he gave credit to the claim of the endogenous argument that the marginal product of physical and human capitals is constant instead of diminishing returns as claimed in the neoclassical theory. But he questioned the productivity of human capital for failing to explain the impressive economic growth of the tiger nations up to 1990s. He clarified that tiger nations' education investment and research development projects did not surpass other developing countries which failed to grow economically. As a result of the empirical shortcomings of endogenous theory, the theory necessitated further explorations, hence, the development of models that incorporate cultural factors. In contrast, Comin (2009) claimed that economic growth is determined by both non-rival and rival knowledge through general innovations and Research and Development (R&D) innovations respectively. However, their findings indicated that an increase in R&D raised firm's instability while general innovations decreased variability of firms using free innovations. Then they concluded that the productivity of investment in human and physical capital to produce rival knowledge which drives growth is unclear. The claim of general innovations could be illustrated by the catching up of the EU with the USA immediately after the Second World War. It implies that Europeans utilized non-rival knowledge innovated by the USA to propel economic growth. Despite the criticism of innovations due to costs incurred in the creation of new technologies as claimed by Comin above, it is a source of economic growth of firms and countries through patents. Despite general innovations (non-rival knowledge) being costless, it is only those firms and countries with capacities to translate it to economic and social benefits that can benefit from it, as Europeans did.

Of course, there have been mixed findings on the importance of R&D activities and productivity growth. For example, Jones and Williams (1998) noted that there was no significant relationship between productivity growth and R&D intensity. It appears that Jones and Williams contradict the assumptions of the endogenous theory that investment in human and physical capital lead to new technologies and increasing productivity of the countries or firms. Instead, they are of the view that investment in

¹⁶ In advanced dictionary patent is a document granting an inventor sole rights to an invention

R&D activities, human and physical capital have little effect on productivity and economic performance. On the other hand, Griliches and Mairesse (1984) together with Griliches (1980; 1986), investigated the relationship between TFP, richness, and R&D intensity. Their findings contrasted Jones and William (1998) because they observed that there is a healthy positive relationship between R&D investments and productivity, though at the firm level and they recommended that non-rival innovation was better than rival innovation. While Coccia (2009) claimed that his findings indicated diminishing returns from R&D investment and suggested that to increase the productivity and economic growth of countries in the long run, then policymakers have to take into consideration total R&D investment and socio-economic specificity of each state. Moreover, the endogenous theory models which recognize the positive relationship between productivity and investment in R&D activities are authored by (Aghion and Howitt, 1998; Dinopoulos and Thompson, 1998; Peretto, 1998; Segerstrom, 1998; Young, 1998). But, these scholars differ in their approaches. For example, Jones (1995) together with Aghion and Howitt (1998, 2005) focused on semi-endogenous that advocates decreasing returns to knowledge to avoid side effects in the entire economy. In this approach, they looked at policies as the cause of permanent changes in the variables of the production mechanism. On the other hand, Dinopoulos and Thompson (1998) and Segerstrom (1998) together with Young (1998) shifted the focus from the entire economy to individual product line to avoid side effects at the aggregate level. Nevertheless, there is another trend that appears to cause disagreement among scholars. In endogenous theory, human capital assumes a significant role, but there is no precise definition of human capital. There will be a further discussion of Human capital in details in the next section.

2.2.3.2 Human capital

As explained above human capital plays a vital role in the endogenous theory. And it is generally, accepted that human capital is connected with education attainment levels, for example, Becker (1962) defined human capital as embodied skills in individuals that comes through education and on the job training. As a result of this worker-force raises their productivity hence receive higher salaries. This appears to confirm Atkinson (1983) who pointed out that human capital theory focuses much on private benefits other than social benefits. While in the same vein, the theory suggests that poor qualifications could lead to high unemployment by markets. Nonetheless, Arrow (1973) and Spence (1973) questioned the human capital assumption that education and job training embodies people with skills which promote economic development. They, however, suggested that education does not raise the productivity of individuals but acts as a device for screening for employees' innate abilities. The

credentials enable the companies to screen applicants without spending higher amounts throughout the employment process. Despite the criticisms leveled against the human capital theory, neoclassical theory's claim that economic growth was related to saving rates and population growth was challenged by Mankiw et al. (1992) who augmented Solow's model with human capital leading to the reduction of the contribution of saving rates and population growth. This being the case, they claimed that human capital accounted for about 80% of income disparities among countries. As highlighted above, the definition of human capital has become a hot debate. The findings of Mankiw et al. (1992) raised a problem of ascribing human capital at the individual level to country level success or failure. Growiec (2010) pointed out that due to the finite lifespan of individuals, human capital might not work at the country level as it could be out of date due to limited lifespans of individuals. Similarly, Serneels (2008) claimed that human capital explains differences in the productivity and wages of individuals. If this is the case, then the theory of human capital could be criticised for promoting social classes among people. Such categories could be formed due to the condition that unless a person has credentials for jobs, there will be prolonged unemployment. In other words, people with low education attainment faces spells of protracted unemployment and insecure low-quality jobs (OECD, 2005). One of the ways of counteracting the human capital theory controversy is to consider that productivity does not only come through education. For example, Bucci and Segre (2011) developed a model containing cultural and human capital in two sectors. Scholars such as Throsby (1999) highlighted the connection between cultural capital as viewed by sociology and human capital as considered by economists. The definition of human capital appears to include culture, see meaning of (Costanza and Daly, 1992)¹⁷. For instance, Marlet and Van Woerkens (2004) argue that 'Florida's creative class' is a better indicator of human capital than education. He explained that in most cases the creative class is essentially working other than educated while educated people may not be necessarily working. He also assumed that the creative class adapt easily to changes and might be more productive in their endeavors than those with education qualifications. This illustrates the point of learning by doing as illustrated by (Stokey, 1988). Another example is related to differences in immigrants' earnings in the United States of America whereby Chiswick (1983) ascribed differences in the profits of immigrants to cultural origin differences. It suggests that human capital does not only come through education but through culture representing the environment one inhabits:

¹⁷ who defined human capital as "the stock of education, skills, culture, and knowledge stored in human beings themselves" (Natural capital & sustainable development, p. 38)

Human capital by education system = $(1 - u) H$ which implies that investment in culture would increase productive human capital.

It suggests that well defined human capital accounts for cross-country differences in economic development. For example, Hall and Jones (1999) claimed that countries' differences in the stocks of human capital cause differences in productivity outputs per worker, hence differences in standards of living. However, Prescott (1998) pointed out that increasing the stocks for human capital takes longer than the time allocated to markets. In other words, the short lifespans of individuals limit the potential to positively contribute to macro-level economic development, implying that investment through education seems to be costlier than investment in culture. Therefore, countries that invest in culture could have the higher productivity of workers than countries that do not. Investment in culture could imply using the education system to instill in citizens better work ethic values that enhance productivity¹⁸.

That too, suggests that responsible government that formulates and implement policies enhancing productivity rather than those that hinder the richness of its citizens will perform better in economic development (Mokyr, 1990). In other words, social capabilities¹⁹ differences among countries contribute to differences in economic development. For example, Abramovitz (1956) claimed that Europeans caught up with the USA after World War Two because they had similar social capabilities. It appears to suggest that Europeans seized the opportunity of using Americans' advanced technology to their success; therefore, the values of people in countries determine their capability of knowledge diffusion. The diffusion of knowledge according to Wilson and Briscoe (2004) helped the Europeans to catch up with the USA. They observed that investment in human capital through education remained a key element throughout Europe. And this was verified by educational expenditures as a percentage of GNP that remained constant for all European countries for a long time. On the other hand, Landes (1980) observed that European technology developed because of their social capability. For instance, in 1980, Landes highlighted that European communities grew together as servants, whereby every trade like builders and mechanics communicated and worked with the single purpose of developing their communities. They copied and improved technologies by standing on what others had done who came before them. Then, it might be complementary to incorporate cultural and economic factors in the endogenous production function to increase the output concerning income per capita

¹⁸ According to the model formulated by Stokey (1988) that illustrates inheritance of human capital from families or societies

¹⁹ Readiness of a country in absorbing technology and have competent political, commercial, financial institutions to provide quality goods and services

(Granato et al., 1996a). Furthermore, De Long and Summers (1993) and Desdoigts (1999) too acknowledged that initial conditions of countries regarding resources' allocation and accumulation and continental geographical cultures determine the success or failure of their economies. All in all, endogenous theory models appear to advocate human capital as the leading cause of economic development in countries. But, the concept of human capital demands better definition to explain economic disparities among countries. There are many endogenous growth models in the literature categorized into three trends. The three patterns represent the whole endogenous models developed to explain economic disparities among countries. The next section will demonstrate how the models differ in their purposes although they all emphasize the importance of the contribution of human capital to the endogenous theory.

2.2.4 Endogenous theory models

One of the outstanding legacies of neoclassical theory is the development of accounting function of production factors to explain and predict economic development among countries. In other words, models are developed to describe the realities observed in the world and then devise frameworks to propel economic growth among nations. See section 2.2.2 above. However, neo-classical theory treatment of countries as similar in structures and institutions overlooks social capabilities differences in countries. Hence, the endogenous theory was developed to meet this need. There are different models developed within endogenous theory to fit the disadvantages of neo-classical theory. The models are presented in the next three sub-sections as follows.

2.2.4.1 Assimilation models

In this model as highlighted by Lucas (1988) production crucially depends on human capital which is both internal and external. The internal human capital is associated mainly with education whereby the skills obtained by the owner are specific and determine the salary level of the individual similar to the one used in labor context market (Heckman 1976). While external human capital according to Lucas (1988) is obtained through learning by doing, families or the societies one inhabits. Romer (1990) highlighted that the theoretical models developed by Lucas (1988) and King and Rebelo (1987) are based on the unconstrained human capital accumulation. That appears to suggest that both internal and external human capital included in the assimilation models. It is important to note the external knowledge could outlive the individual in the form of discoveries that are important to societies and is mainly in the non-rival form. This model highlighted above considers human capital as an engine of economic growth though is part of productive labor; hence new investment in human capital commands economic growth. In other words, human capital determines endogenous

technology growth as highlighted in Romer (1990) that human capital influences the domestic innovation. The motivation of the assimilation models appear to be as a result of the following realities in the world: firstly, failure of education attainments to propel the developing countries to catch up with the developed countries (Pritchett, 2001). Secondly, the divergence of income per capita between developed and developing countries; thirdly, differences in total factor productivity among countries.

2.2.4.2 Absorption capacity models

The models in this category emphasize the human capital element that utilizes the existing technology (Nelson and Phelps, 1966). In other words, the models deal with the relationship between levels of human capital and technology change. Neoclassical knowledge claims this type of technology as exogenous while the absorption capacity models of endogenous theory link the intangible expertise to human capital as existing technology. Similarly, Falvey, Foster and Greenaway 2007; Wolff 2001 connected human capital capacity to absorb the flow of knowledge spill-overs. It suggests that countries with the ability to absorb spill-overs would undoubtedly converge with the advanced countries in technology.

2.2.4.3 Innovation and technology diffusion models

Benhabib and Spiegel (1994, 2005) formulated the model that incorporated the two other models highlighted above. They advocated both innovation and technology diffusion. However, considering the answers to why developing countries are failing to catch up, they probably referred to the inability of utilizing the knowledge spill over. On the other hand, they noted that education attainments might have been under-utilized or the education attainment as a proxy for human capital fails to capture necessary skills for productivity (Dowrick and Rogers, 2002). Above all, what is common in the models employed is the variables engaged in explaining economic outcomes in their production functions. Hence, the next section will briefly explain efficiency differences among countries. The models in sections 2.2.4.1, 2.2.4.2, and 2.2.4.3 above express the efficiency of countries differently. This efficiency is in most studies regarded as TFP which is the focus in section 2.6 below.

2.2.5 Traditional or economic category

Section 2.2 above highlights the general wisdom in mainly three pivotal theories namely: classical, neo-classical and endogenous theories. For instance, the generally classical theory according to Smith (1776), the differences in economic growth among countries is owing to land, labor, and capital production factors captured in equation (1). On the other hand, the theory advocates competition among the individuals called by Smith (1776) '**invisible hand**' that determines economic growth differences among countries. However, there are inconsistencies highlighted in the literature on the role

classical theory explanation of economic growth differences among countries (Thirlwall, 1999, 2011; Nafziger, 1997; Marx, 1847; Gintis, 1972; Mill and Backhouse 1997). Furthermore, taking into consideration that an economic man partly purposed in maximizing wealth, but at the same time, there are constraints of aversion to laboring and subjection to leisure (Blaug, 1992; Bowley, 2013). Individual's rationality fluctuates with time due to the stochastic environment; that past decisions affect future expectations, then, the classical theory fails to provide a statistical model that would consistently give the best probabilities of future outcomes (Greenwald and Stiglitz, 1988). Therefore, the traditional economic theory appears not to offer a convincing explanation of the causes of disparities in economic development among countries.

On the other hand, the neo-classical theory assumes static equilibrium in competition conception with no external influence from outside the model. And in this perfect market, the producers and consumers do not affect the prices due to the numbers involved whether large or small. Besides, the product prices do not influence production productivity of firms, but firms increase or decrease their production output merely as a result of maximizing profit. However, historically, there has been inconsistency in the assumption of the perfect competition of neo-classical theory. For example, Tsoulfidis (2011) points out that the depression during the period of 1873-1896 led to an elimination of most of the companies that failed to compete due to excessive price cuts and concentration of capital. Another important aspect associated with the neo-classical theory is the convergence element between developed and developing countries. In other words, assuming that all the conditions remain the same among countries except for the concentration of their capitals, then developing countries will grow faster in real per capita than rich countries (Solow, 1956; Swan, 1956). Generally, it is observed that income between developed and developing countries is widening (Dowrick and Akmal, 2005; Baddeley, 2006; Berry, Guillén and Hendi, 2014). In contrast, some studies have reported the convergent of the income gap between developed and developing (Bond, Hoeffler and Temple, 2001, pp. 22-24; Barro, 1997). Whatever the case, developing countries, particularly the Sub-Saharan region, remain the least developed region in the world (Malamud and Assane, 2013). Hence, the catch-up assumption of neo-classical theory seems not to work for all countries in the same way and at the same time (Nelson and Pack, 1999, p. 424; Kim and Nelson, 2000).

Marx (1906) claimed that the capacities of individuals develop according to the tasks assigned to in the economic production system. Hence, suggested that individual welfare depends on the path of development of the individual's capacities as they engage in the tasks assigned. These tasks are mostly captured in this category of variables such as saving, investment, capital accumulation (capital stock), and human

capital (division of labour) portrayed as the key determinants of economic growth of countries in classical and neoclassical theories (Smith, 1937; Malthus and Appleman, 1976; Ricardo, 1817; Marx, 2004; Barro, 1991; Lucas, 1988). Despite the efforts of engaging this traditional category variable in theoretical frameworks to provide a link between its theoretical explanations and the empirical world, it seems not to work as noted by (Blumer, 1969). Consequently, economic disparities still exist mainly between developed and developing countries. See the introduction of chapter 1 for more explanations. Could this accord with the claim of Merton (1968) that the variables involved in the theoretical frameworks are interrelated and are defined according to their fitness to the empirical instances as perceived by the researchers? For example, researchers embracing neo-classical assumptions define variables in theoretical frameworks without consideration of non-economic factors (Mill and Backhouse, 1997; Nurkse, 1966). This study will also extend the number of variables in this category with the rationale of finding out if other variables other than those mainly embraced in classical and neo-classical models explain income disparities between developed and developing countries. The variables in the traditional category are demonstrated in Table 2.1 below. However, their definitions are in Table 3.2 in chapter 3.

Table 2.1: Abbreviated and full names of the traditional variables

Condensed variable	Complete variable name
GDPPC	GDP per capita based on purchasing power parity (PPP).
EMP	Employment to population ratio (%)
HDI	The Human Development Index
IGS	Imports of goods and services (current US\$)
RKN	Real capital stock an (in thousands 2005US\$)
TED	Population with tertiary education (%)
HCT	Index of human capital per person on years of schooling
EGS	Exports of goods and services (%)
FDI	Foreign direct investment (current US\$)
AID	Foreign aid to developing countries
GRS	Gross Domestic Saving (%)
GCI	The Global Competitiveness Index
ETR	New business density (new registrations per 1,000 people

Notes. Human capital is represented by TED in chapter 4 while HCT in chapter 5. Also, FDI is applied in chapter 4, and AID in chapter 5.

Hence, hypotheses of the variables in this category are as follows:

- H1a: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR AID significantly contribute to economic growth
- H1b: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR do not significantly Contribute to economic growth
- H1c: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR has an effect on economic growth
- H1d: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR has no effect on economic growth

2.3 CULTURE DEFINITIONS

The definitions of culture given in sociological, economics, psychology, and anthropology literature express culture differently due to their ideological assumptions associated with the stance of respective disciplines. Consequently, the culture concept has been branded as a vague concept that includes many strata, hence trying to be useful in explaining the economic differences between countries around the world. But, looking closely at culture definitions by different authors, it could be argued that the culture construct has a long history and can be used in many different ways (Bond, 1998; Bond et al., 2010; Fischer, 2009; Tung and Verbeke, 2010; Keesing, 1974; Kroeber and Kluckhohn, 1952; Matsumoto and Yoo, 2006; Parsons and Shils, 1951; Schudson, 1989; Sternberg, 2004; Swidler, 1986; Hofstede et al., 2010). For example, Geertz (1973) and Cochrane (2006) define culture as historically transmitted traditions, rules, beliefs and norms of a group, while Berry et al. (1992) explain the concept of culture as psychologically how the group creatively interacts with the environment, and how the group is culturally structured. Therefore, in this thesis culture is intently defined as adjusting system of ideas, structures, and symbols transferred through socialization of behavioural patterns of the societies connected to environmental surroundings like technologies, modes of economic running, settlement patterns, political organization, religious beliefs and practices similar to the view of (Keesing, 1974). Even though Keesing extensively focused on the definitions of different layers of culture, his views lack empirical evidence; hence this thesis intends to fill this gap (1974). However, for this to be done this thesis limits the definition of culture to accumulated knowledge due to both individual and society experiences and discoveries concerning ecological conditions culminating in values, rules, beliefs and social norms as claimed by (Fernandez, 2009; Nunn, 2012; Sternberg, 2004). In summary, culture is limited to functional and constituent senses playing a part as universal aspects of people's behavior, in most cases authenticated in their activities and belief systems. Hence, the concept of culture seems to have concomitant values that are embedded in traditional economic factors claimed to be the engine of economic growth in countries as explained in section 2.2 above. Moreover, these concurrent values too are assumed to contribute to differences in human experiences such as wealth creation of the nations. It seems parallel to a rational model whereby individual uses available information about different courses of action; then outcomes can be ranked according to their usefulness and become the outcome for the society. This thesis observes that concomitant values can also be classified and seem to differ between individuals and communities leading to different courses of action of individuals and communities. For example, Throsby (1999, p. 6) together with Rizzo and Throsby (2006, pp. 986-987) assume that cultural

value could be measured regarding a unit of account playing a role comparable to commercial scale in regulating economic value. Also, cultural valuation can take the form of assets such as buildings, structures, sites and locations placed in the category of cultural heritage. Furthermore, cultural significance can be in the way of artwork and artefacts such as paintings and sculptures. The stock levels of these tangible assets contribute to the rise and flow of goods and services in the societies. On the other hand, the concomitant cultural values may form the stock of intangible assets such as a set of ideas, practices, beliefs, traditions, and values. This group also enhance the flow of goods and services in the societies which this thesis empirically intends to explore. Hence, the thesis focuses on intangible cultural capital (ICC) articulated in different layers as the proxy for the concept of culture. Narrowing the definition of culture as various forms of ICC provides the foundation of the study and supports the purpose of this study throughout the argument. The next sub-sections will explain more about the forms of ICC embraced in the cultural category in this thesis.

2.3.1 Cultural category

2.3.1.1 ICC as civic capital (CPR)

CPR in this study is defined as the ability of citizens in respective countries of coming together in unison for the construction of solutions to the current challenges for better social outcomes such as economic development. Of course, the study notes that an institution could shape behavior both exogenously and endogenously or be fulfilling specific actions or purposes similar to the clarification of North (1990) that:

"Institutions are the rules of the game in a society, or ..., institutions are the constraints that shape human interaction". (North, 1990, p. 3).

Also, Wu (2013) defined the institution as "established rules and organizations accumulated from settled choices that are capable of affecting future decisions" (p. 4). He further highlighted that the institution includes both physical entities such as family, firm, and jail and non-physical but physical entities like events and laws. Similarly, Gnegne (2009) claimed that culture is an element of institutions though, also noted that institutions could undermine culture. Likewise, Harrison (1992) argued that culture, not politics is the force behind the success of societies though he further commented that politics could change the culture and save it from itself. As it appears, the culture and institution definitions suggest that cultural evolution and institution formation happen as a result of human interaction with the environment. Hayek (1973, 2013) explains better when he suggested that "rules of conduct have thus not developed as the recognized conditions for the achievement of a known purpose but have evolved because the groups who practiced them were more successful and displaced others" (Hayek, 1973, p. 18). That seems to suggest that civic capital embodies individuals, but the aggregate of individuals' political capital levels determine possession of a durable network of more

or less institutionalized relationships of mutual acquaintance and recognition as observed by (Bourdieu, 1985). However, the representation of institutional political agents seems to play a part in the construction of the view of the social world whereby in some instances representing agents impose their views of the social world contrary to social structures. It seems to determine the differences in political capital levels in different societies. For instance, in societies where the agents of political representation objectively construct the social world, they also consider the current structures or institutions. It seems to suggest that prescribed institutions contrary to societies' culture could lead to the inappropriate evolving civic capital building due to lack of interaction process of perception and reason. For example, Putnam (1993) observed that the free city-state that happened in Italy about five centuries earlier could be the foundation of civic capital differences between North and South Italy leading to different economic outcomes. Even though Putnam empirically connected public capital and economic growth differences in North and South in Italy, his research lacks generality to other countries such as developing countries. Hence, this study engaged political capital generated from WVS from 1994 to 2015 for six developed and six developing countries in chapter 4. Besides, the political capital concept from WVS, political capital was also captured from Afrobarometer Surveys in chapter 5 for sub-Saharan 18 nations from 2000 to 2015 period. The questions used to obtain the political capital concept in both chapters are illustrated in Table 3.5 in chapter 3. Similarly, Aghion et al. (2010, p. 2) noted that levels of civic capital in individual or society depend on how citizens trust or distrust the government institutions. They claimed that when citizens distrust institutions more regulations are demanded to deter corruption and ineffectiveness of their government institutions. Their study also contended that higher control is a sign of no investment in civic activities such as entrepreneurship or political participating in voting mechanism. Also, Glaeser and Shleifer (2003) who investigated substantial historical literature regarding the rise of the regulatory state in the US at the commencement of the 20th century and observed that the call for regulation originates from the perceived unfairness of the existing social order. While in the same vein, Di Tella and McCulloch (2009) claimed that injustice due to capitalism causes voters in developing countries not to participate in the political mechanism. Hence, the dissatisfaction among citizens in developing countries could be due to inequality of wealth and political power consequently lower civic virtues. That is what the thesis investigates whether public capital could explain differences in economic growth in developed and developing countries. Despite connection of civic capital and economic growth in literature, most of the studies used public capital data sources readily available in developed countries other than developing, hence, this thesis uses Afrobarometer Surveys in chapter 5 to address this gap. The bottom line is that political capital captured through surveys

seems to play a more significant role in economic development than currently portrayed in literature in mainly developing countries.

2.3.1.2 ICC as social capital (SOC)

Acemoglu et al. (2001) claimed that evil colonial institutions that happened many years ago could have long-lasting effects on the colonized countries. In other words, the way societies organise themselves are path dependent reflecting their history, economic, legal, political, social and moral institutions that cultural beliefs, values, norms, and rules account for intersociety differences in institutions as reasonably expressed by (Bagella et al., 2002; Brohman, 1995; Greif, 1994; Richerson et al., 2010). The claim that culture is a backbone for the institutional building was empirically tested by (Licht et al., 2007). They investigated the relationship between national cultures and social institutions. The culture operationalized with data of cultural dimensions from cross-cultural psychology literature (Schwartz, 1994, 1999; Hofstede, 1980, 2001). On the other hand, social institutions operationalized as social norms of governance: the rule of law, corruption, and democratic accountability (Kaufmann et al., 2003, 2006). Then they concluded that social norms of governance systematically and strongly associated with national cultural dimensions' scores and differ across cultural regions of the world. All the literature in this sub-section above connect to ICC in the form of social capital in three ways. These three ways are in line with the summary by (Holt, 2008, p. 227). Firstly, social capital associated with the embodiment of individuals relying on broader socio-economic processes. Secondly, the embodying of individuals takes place through political-economy interplay with power facilitation. Thirdly, social capital embodiment registers through the endurance of inequalities and the possibilities of social transformation. These ways of how social capital formed in individuals and created through the strategies such as semi-structured interviews and questionnaires (Butler and Robson, 2001; Smith and Phillips, 2001; Ley, 2003; Bridge, 2001; Bridge, 2006; Waters, 2006). Despite surveys widely used in literature, there is dissatisfaction with how the concept of social capital is correlated with the measure of trust by attitude surveys. For example, Glaeser et al. (2000, p. 813) question standard attitudinal question in surveys that generally do not predict individual choices of behavior. However, the authors noted that attitude surveys seem to predict trustworthiness. Hence, to address the concerns, this study generated social capital as an index from survey questions measuring past trusting attitude representing confidence in people in different leadership roles in the countries. See Table 3.5 in chapter 3 for more information. It is generally accepted that aggregate confidence of people in societies successfully measures the concept of social capital (Glaeser et al., 2002, p. F444). Besides, this study use of social capital captured from two different surveys over a period measure mutual expectations of individuals arising from the social justice

systems, professional standard and codes of practice in line with an observation from (Paldam and Svendsen, 2000, p. 342). Having looked at ICC as social capital above, there is another aspect of ICC that is not thoroughly empirically researched in developing countries, yet seems to provide the utilizing capacity differences of ICC in the states. FER forms part of ICC investigated in the next sub-section.

2.3.1.3 ICC as responsibility (FER)

The definition of responsibility in this study is limited to personal motivation to engage in public affairs conscientiously guided by moral ethics to maximize outcomes for the best interests of the common good of the society. Nonaka and Takeuchi (1995) pointed out that knowledge and skills application or management is the foundation of economic growth in the context of competitive environments. Many studies have researched on the creativity, management, and form of intellectual capital versus new product development and economic growth; however, the impact of responsibility of individuals concerning the application of ICC remains incomplete. For instance, Hsu and Yang (2009, pp. 664-665) researched intellectual capital²⁰ and new product development performance in firms in Taiwan. They claimed that the interaction of intellectual capital and organizational²¹ learning capabilities are the precursor to the performance of new product development that enhances economic growth. Their research focussed on organizational learning capabilities to explain performance differences of firms, in contrast, this study examines the maximization of outcomes by responsibly engaging in public affairs for the common good of the society. Similarly, Makkonen et al. (2014, p. 2715) investigated the dynamic²² capabilities and performance of firms during the financial crisis of 2008. They observed that different dynamic capabilities have different effects on the performance of firms in the competitive environment. Their study focused on internal and external organizational matters that affect the performance of firms while this research centers on the responsibility of individuals for the advancement of their society regarding economic growth. This is why responsibility as one of the critical aspect of ICC is very needful in the competitive global environment. The competition between countries in the world economy compared with engaging the five forces of Porter (Porter, 2008). Porter argued that for firms to survive, they have to understand the competition they are involved in and device strategies or plans to continue to make the profit. In the same way in the

²⁰ Defined as human capital, structural capital and relational capital

²¹ Means an active actor that can, at least to some extent, adapt to the environment, mainly within the limits of its resources and capabilities (Makkonen et al., 2014, p. 2707).

²² Dynamism refers to the rate of technological change or environmental volatility in general (Ambrosini et al., 2009; Helfat et al., 2009).

global economy countries have to understand the competition and devise strategies for their local economies to survive and grow. Marx (1847) described the competitive environment as a battle, countries fighting for survival. In other words, the fierceness of competition is not only fought between nations but also between social classes and individual members of the societies. Also, Johnson and Whittington (2009) together with Peng (2009) highlighted that for countries to be competitive, they have to have tangible and intangible resources which are part of the ICC concept. Resources and capabilities are almost defined in the same way because both are core competencies of countries that enable countries to devise appropriate strategies and implement them to achieve their targets as claimed by (Barney, 1991). In other words, using and managing resources responsibly promotes the well-being of all citizens in the society. While on further exploration of ICC, the next sub-section will the relevance of ICC in the form of hard work in developed and developing countries.

2.3.1.4 ICC as hard work (HWK)

According to Weber (1930) cultural values such as hard work, thrift and honesty were instruments of accumulation of capital and capitalism. While on the same, 68 years later, Landes (1998) claimed that Japan's cultural values of hard work that permeated their societies enabled the transformation of their country from lack of real economic growth to sustained economic growth. It was everyone's responsibility and commitment to materialize the government's initiatives of economic growth. Similarly, Yang and Lester (2000, p. 282) explained that attributes of "Confucian ethic" such as hard work, respect for family and social order in countries like Taiwan, Hong Kong, and Singapore enabled these countries to industrialize and develop. Also, Becker (2013) empirically observed that culturally motivated behaviors vary with contexts and situations. Becker in his empirical work implied that virtues such as hard work in countries are critical for sustainable economic growth that generally raises the standard living of the citizens. It seems to agree with Banfield (1958) who earlier on argued that success or failure concerning economic growth in countries is subject to personal efforts. In other words, progress according to Banfield (1958) is owing to individuals persistently endeavoring to earn more wages. Hence, their productivity increases their welfare individually but also propels economic growth in their respective society. For instance, Grier (1997, p. 49) observed that Protestantism virtues of hardworking and individualism enhanced economic development in the USA and Canada consequently propelled sustainable economic growth. Despite empirical work in mainly developed countries confirming the importance of hard work virtue, it necessitates testing if hard work virtues are equally important in developing countries. Furthermore, almost all the empirical work extensively researched in developed nations relied on data that captures

virtues in advanced economies context. Hence, this study employs data sources that capture both advanced and non-advanced countries.

2.3.1.5 ICC as Religion (REG)

Marshall (1920, p. 1) as one of the 20th-century modern economics founder recognized that religion is one of the two great world history formative agents. Of course, belief can mean many things, but this study borrows the definition from Stark and Bainbridge, (1985, p. 5) who defined religion as any “shared set of beliefs, activities, and institutions premised upon faith in supernatural forces”; however, this study captures spirituality narrowing to believe in God, heaven, hell as crucial elements in the importance of religion in people's lives. Regarding empirical work on religion, essential studies have extensively worked on its impact on economic growth. For instance, Grier (1997, p. 47) observed that Latin America mainly Spanish speaking countries inherited Catholicism cultural traits that are not commercial friendly. This view seems to agree with Weber (1930) who claimed that Protestantism is positively related to economic growth. Nonetheless, the above studies focussed on differences in belief values between Catholics and Protestants while this thesis denotes religion concerning the importance of God in people's lives that captures levels of religious people regardless the types of faith in countries. While on the same, some social scientists have negatively connected Catholicism to economic growth (Harrison, 1985; Morse, 1964). On the other hand, Fanfani (1939) claims that religion is a catalyst for economic growth only when it is separate from politics and economic life. On this, Fanfani was of the view that Protestantism positive correlation with economic growth was due to their ability to separate state and religion, unlike the Catholicism. It seems to agree with Weber (1905, 2002) claims that Protestantism linked religious salvation and good works as the fulfillment of duties in worldly affairs which was contrary to Catholicism. Hence, this thesis intends to bridge the inconsistency in the literature regarding the importance of religion to explain economic growth differences among countries. The concept of religion captured for this study in this subsection is part of the ICC form of cultural capital highlighted in section 2.3 above. Furthermore, ICC is denoted as security which is the focus in the next sub-section.

2.3.1.6 ICC as security (SEC)

Table 3.2 defines security as freedom from fear of violence that includes theft, war, bodily harm, terrorism and being robbed of materials or properties hardly acquired. It is generally pointed out in the literature that low levels of security in countries hinder motivations and opportunities to invest, limits foreign technology and innovation (Mauro, 1995, p. 81). It is well thought that protection to people, property rights, and contract enforcement cannot be dependable unless there are adequate measures in place to

check on executive discretion (Buchanan, 1962; Hayek, 1973; Cass, 2001; Dicey, 1982). Also, Licht et al. (2001, p. 7) observed that values such as freedom, security, wealth, hedonism, and justice implicitly or explicitly guide executive actors' actions to do what is right, right and desirable in the societies. That seems to suggest that people in leadership determine policies that enhance or not economic growth depending on what values are directing their decisions. For example, Jones and Olken (2004, p. 861) suggested that the change of national leaders in developing countries corresponded with the patterns of economic growth in the countries. They concluded that constraining the power of leaders in developing countries to promote economic growth. The next paragraph will highlight the empirical research conducted and why it is different in this study.

Haggard and Tiede (2011) observed that the literature rule of law is associated with economic growth. To attest the signature of the rule of law in explaining economic growth among countries, they denoted the rule of law in four dimensions namely: the provision of security of person and property; enforcement of contract; checks on government; and checks on corruption. One of the main reason why they used these dimensions is that the concept of the rule of law in literature has been captured differently. They noted that some indicators were subjectively measured through the evaluations of experts, investors, and citizens. Others were objectively measured through political institutions capturing institutional and legal environment. According to Glaeser et al. (2004), the proxy of legal institutions such as the rule of law is subject to objective measurements for the reason that subjective measures are prone to the risk of bias. This view is supported by the empirical work of Kurtz and Schrank (2007) who found that the importance of subjective measurement of governance indicators evaporates in cross-country growth analysis after controlling economic performance. On the other hand, objective measures of the rule of law are also subject to measurement error or proxies not reflecting the conventional structures of the institutional and legal environment (Haggard and Tiede, 2011, p. 676). Furthermore, Oman and Arndt (2006, p. 30) pointed out that the distinction between subjective and objective indicators is that objectively obtained indexes are replicated in contrast to individual symbols. They, however, argued that it would be a mistake to consider that real accomplished signs are more impartial because the choice of facts used and their interpretation incorporates to some extent subjective judgments in their generation. For instance, La Porta et al. (2004) observed that even though Peru in their research had a perfect score on judicial independence, this finding contrasted the persistence of authoritarian executive and rampant corruption in Peru. This difference between objective indicator measurements and reality in Peru is analogous to the distinction between *de jure* and *de facto* institutions as observed by (Woodruff, 2006). Hence,

Haggard and Tiede (2011) used data to measure the security of persons from the International Country Risk Guide (ICRG) as one dimension to measure the rule of law. They claimed that the data produced by ICRG capture both subjective and objective measures of the rule of law. They concluded that violence in developing countries significantly hinders economic growth than other proxies of the rule of law other than corruption. However, the indices of security of persons they used from ICRG may fall in the same trap they highlighted that discrete components of the rule of law widely used in literature have fundamental methodological problems in their construction (Oman and Arndt, 2006). The study assumes that the methodology problem highlighted above might be due to the shortfall of capturing the differences between *de jure* and *de facto* or failure to consider informal institutions. For this reason, security of people and property will be obtained from the Afrobarometer Surveys as illustrated in Table 3.5 in chapter 3.

Having looked at how ICC in sub-sections 2.3.1.1 to 2.3.1.5 above, the next section will further examine formal and informal institutions. The institutional change theory according to North (1990) explains that formal institutions configure informal institutions, and he acknowledged that formal and informal institutions concurrently evolve through the operation of social organizations such as villages, firms, governments, and households. On the other hand, Pande and Udry (2005) contested North's definition of institutions²³. They argued that moral and ethical behavioral norms are in most cases embodied in informal institutions such as religion and caste determining the quality of institutions. In other words, in 2005, Pande and Udry's view is more oriented to *de factor institutions than de jure institutions*. In this vein, the next section will explain more about formal and informal institutions. Hence, this thesis postulates that variables in the social category in sub-sections 2.3.1 to 2.3.5 significantly contribute to sustainable economic growth in countries. See condensed and complete names of cultural variables in Table 2.2 below and the hypotheses following the table.

²³"Institutions are a set of rules, compliance procedures and moral and ethical behavioural norms designed to constrain the behaviour of individuals in the interests of maximizing the wealth or utility of the principals."

Table 2.2: Condensed and complete cultural variables

Shortened names	Full names
HWK	Hard work
CPR	Civic capital
SOC	Social capital
FER	Feeling Responsibility
REG	Religion
SEC	Security
ICC	Intangible cultural category

Notes. FER variable was applied only in chapter 4 while SEC only in chapter 5.

H2a: HWK CPR SOC FER REG SEC significantly contribute to economic growth

H2b: HWK CPR SOC FER REG SEC do not significantly contribute to economic Growth

H2c: HWK CPR SOC FER REG SEC have an effect on economic growth

H2d: HWK CPR SOC FER REG SEC have no effect on economic growth

2.4 FORMAL AND INFORMAL INSTITUTIONS

North (1991, p. 77) defined institutions as restrictions that construct political, economic and social interactions, but he acknowledged that both formal and informal institutions administer people's actions through incentives. However, Pande and Udry (2005) were sceptical about North's agency implication in the definition of formal and informal institutions. Instead, they argued that institutions are often not designed, and even when they are, their operation may be different to what was initially intended. Boettke and Coyne (2009) described formal institutions as classified written rules and informal institutions as inclusive of cultures, norms, and conventions enforced by social custom. There is one more element in this study that needs to be explained by answering the question, "How do both formal and informal institutions satisfactorily explain their impact on economic growth?" Williamson and Mathers (2011) empirically tested formal and informal institutions by operationalizing formal institutions as economic freedom institutions by taking measurements from the Fraser Institute, while informal institutions were operationalized by taking measurements from WVS. They concluded independently that both culture and financial institutions contribute to economic prosperity. Despite the work of North (2005) and Weber (1904, 1905, 2002) agree with the findings of Williamson and Mathers (2011) economic freedom institution is not clearly labeled. Firstly, the data is prone to measurement problems. Secondly, the data used to measure economic freedom is not available in many countries, and the period the data covers are limited. Therefore, it is doubtful that the correlation between economic freedom and economic growth is robust enough to be trusted (De Haan and Sturm, 2000, p. 216). While on the same, the relationship between formal

and informal institutions versus economic growth is further explained by (Casson et al., 2010). They claimed that even though more credit given to formal institutions, the form of socio-economic outcomes does not solely depend on a development-orientated institutional perspective but also informal institutions. For instance, they explained that informal institutions influence the formation of the formal ones such as laws. It seems to suggest that informal institutions are deeply embedded in changing the actions and interactions of people in different types of social organizations such as household, villages, firms, groups, and governments in line with the study by (Pateman, 1988; Mies, 2014). In short, informal institutions seems to influence the quality of formal institutions. For example, Casson et al. (2010) argued that in the developing countries informal institutions play a significant role in the formation of legal institutions, especially if the interaction between markets and formal rules or institutions crumbles. Additionally, Platteau (1994; 2009) observed that informal institutions formed from culture and history re-installs trust among people when official rules fail to operate. To explicitly further explain the link between formal and informal institutions, the next sub-section also highlights the relationship. This relationship is vital in explaining economic differences among countries. However, in the next sub-section, there is the acknowledgment that economic growth among countries involves a wide range of factors such as geography, history, globalization, different capabilities, and many others.

2.4.1 Geography and Historical events

Generally, it is accepted in the literature that multinational enterprises theory highlights four motives for MNEs²⁴ to invest in a country other than their own namely: i) natural resource seeking, ii) market seeking, iii) efficiency seeking, and iv) strategic asset seeking (Daft, 2012). Since their motive is to maximize returns, they chose countries to invest in due to country-specific advantages which include natural resources and location. It suggests that inflows of foreign direct investment (FDI) contribute significantly to the economies of the countries. Therefore, lack of FDI due to geography contributes to the underdevelopment of the nations. On the other hand, backwardness has also connected to histories of the countries. For example, Putnam (1993) claimed that North and South Italy enjoy the same institutions but their GDP per capita differs due to different historical origins, hence, differences in social capital levels. Further explanations why geography contributes to the quantity of FDI received in the specific countries that in turn enhances economic growth will be explained in the next sub-section.

²⁴ Multinational Enterprises

2.4.1.1 Geography

Bloom et al. (1998) claimed that a lack of development in Africa is ascribed to geography that has dimensions of climate, soils, topography, and diseases. They observed that most of the countries under tropical zone have low production output compared to temperate zone countries. For instance, they noted that in 1995, tropical economies averaged \$3326 in GDP per capita, while the non-tropical nations averaged \$9027 in GDP per capita. Only two of the top 30 countries in a world ranking of GDP per capita lie in the tropics: Hong Kong and Singapore. This assumption according to Glawe and Wagner (2017, p. 2) of a relationship between tropical location and underdevelopment is not a new topic in economic development but comes from as far back as 16th and 18th centuries by (Machiavelli, 1519; Montesquieu, 1748 both cited in Easterly and Levine, 2003, pp. 5-6). If this is the case, it seems to suggest that country-specific advantages determine the levels of FDI inflows in countries. For example, FDI inflows according to United Nations Conference on Trade (UNCTAD) report in the year 2008 in developed nations had \$962.3 billion while developing countries in the same year had \$620.7 billion. Also, in the year 2009 due to the financial crisis, the FDI inflows in developed nations dropped to \$565.6 billion while developing countries fell to \$405.5 billion. Of course, climate and location as claimed by Landes (1999), Machiavelli (1519) together with Sachs and Warner (1997), possibly explains why most developing countries such as SSC had the least FDI in UNCTAD report. Nevertheless, geographical explanations of economic disparities yield ambiguous results for the reason that there are some countries like Nigeria, rich in natural resources and access to external markets but the country is struggling economically. On the other hand, Japan which was underdeveloped at some point in time compared with developed countries managed to catch up with the developed countries, yet it has few natural resources comparing to Nigeria (Meisenberg and Lynn, 2011). At the same time, in Sub-Saharan region countries like Botswana and Mauritius to mention a few appear to do better economically than other developing countries like Malawi, Tanzania, Zambia and many others in the same region. Hence, the question remains what then causes economic disparities? The next sub-section attempts to answer the question.

2.4.1.2 Critical Historical Juncture in the African continent

North (1981) was one of the first scholars to connect countries right path to differences in economic development. His claim reinforced by the work of Acemoglu et al. (2001) and Hall and Jones (1999) who associate underdevelopment to colonial origins mainly by the Europeans. Their findings focused on policies and political maneuvers that were beneficial to colonizers' economic interests rather than to the colonized. On the other hand, scholars like La Porta et al. (1999) explained economic

development differences regarding the origin of legal institutions. They claimed that legal background contributes to the performance of the governments while taking note of the views presented by above scholars in this paragraph. This study is interested more in the connections between historical paths of countries and the formation of cultural values, beliefs, norms, and rules that the study explores as determinants of economic disparities among nations. For instance, Banfield (1958) and Putnam (1993) connected social capital, civic and economic behavior differences between Northern and Southern Italy to variations of their respective traditional histories. It appears to suggest that formation of preferences of doing things is attached to the past values, norms and rules of the societies and these values are the ones that explain economic performance differences (Glaeser et al., 2002; Tabellini, 2010).

In contrast, Lipset (1997) and Inglehart and Baker (2000) claimed that the level of economic development induces the creation and consolidation of democracy or institutions. For this reason, the institutions embraced in the developed countries were enforced in less developed countries with the anticipation that democratic governance will be created leading to economic development. Nonetheless, Glaeser et al. (2004) raised a concern that institutions embraced in the modernization theory yield different financial performances in different countries due to different informal institutions. Therefore, the claim that historical paths of nations appear to stand for the reason that history contributes to the formation of culture. For instance, Nunn (2009) presented that history can have long-time impacts on the creation of culture. Also, Landes (1999) connected the present state of economic differences between North and South America to differences in cultural values among the colonizers. Furthermore, in 1999, Landes explained that in South America Portuguese and Spaniards as colonizers were more interested in extracting natural resources to mother countries rather than developing institutions that would empower indigenous people. In contrast, British colonizers in North America introduced their hard-working values and economic freedom that eventually lead North Americans to grow more rapidly than the counterparts (Bertocchi and Canova, 2002; Price, 2003). Comparing the three colonizers, Britain was more industrially developed and had better economic freedom institutions than Portugal and Spain (Lange, 2004).

Besides, Darity (1982) claimed that the slave trade was the most lucrative activity in the 18th century. Due to this nature of the unproductive activity, slave raiders, slave traders, and intermediaries caused African continent militarised, the formation of kingdoms, and warlords (Law, 1991; Manning, 1990). The extent of violence and suffering for those who remained in Africa and those taken is immeasurable. Furthermore, immediately after the abolition of the slave trade, colonialism came into

force in the African continent (Nunn, 2007). Therefore, if critical historical junctures could explain the formation of culture (informal institutions), then underdevelopment in Africa could also be associated with colonialism and slavery. Platteau (2009) declared that African development lagged behind due to international obstacles. He further explained that governance problems remain correlated to institutional legacies that existed during pre-colonial and colonial times in African countries. Hence, the prescribed institutions imposed on Africans impacted on their values and capabilities. See more explanations in the next paragraph.

Acemoglu (2003) claimed that Europeans introduced different institutions in different colonies depending on the motive of their colonization. If the motivation was to extract natural resources from the colonized countries, they entered institutions that protected them to do that instead of protecting the indigenous people. Institutions introduced helped the elites consolidate the power over the indigenous people. For example, Prah (2002) argued that the current realities in Africa are as a result of the encounter of the Africans with the Europeans through colonization. He further explained that education systems established under the colonial rule were contrary to the cultures of the colonized. Similarly, it was agreed that history matters by giving the form of colonization as a formula of integration that shaped the development of institutions in the colonized countries (Engerman and Sokoloff, 1997, 2002; La Porta et al., 1997, 1999; La Porta, 2008). Likewise, Nunn (2007) and Amin (1972) associated unproductive activities of African societies to the legacy of the slave trade and colonialism by the Europeans. Furthermore, Adejumobi (2000); Bohannan and Curtin (1988) claimed that African nations had developed political systems and advanced legal institutions that could be compared to today's courts. Nonetheless, colonialism explanations of underdevelopment are debatable for the reason that historically, Christian missionaries from European countries established in kind many things that were good to the lives of people such as hospitals and schools which are still in operation today in Africa continent. However, the question remains if education systems provided were in the interest of indigenous people or the colonizers. Furthermore, there are rail lines built by colonizers over 50 years ago which are still operational today. Ironically, after independence, many African countries failed to develop better rail lines, roads, and education systems. Instead, they maintained or was unable to keep good things started by the colonizers. This view is not without criticism. For instance, South Africa and Zimbabwe developed better facilities within the same period than other countries. Why? The possible answer is that it is not African leaders who developed better facilities but Europeans. Of course, colonialism impacted on the cultural values of indigenous people both negatively and positively but the better development of infrastructures in Zimbabwe and South Africa raises questions on the role of native

national bits of intelligence in most of the African countries which until now most people experience extreme poverty. The next sub-section will further explore national culture and knowledge.

2.4.2 Ability to novel challenges in different contexts

In section 2.3 above culture definitions given are relevant to this study. However, the main focus in this section is to explain the relationship between culture and ability. Sternberg (2004) argues that trying to define the ability of people to solve contextual challenges out of their cultural context is not doing justice for it could lead to the imposition of skills that are not relevant to the challenges faced by people in the cultural setting. It is, therefore, a responsibility of each cultural system to define the skills and ability important for the economic development of its people. Hence, differences in perception and cognitive are also cultural specific as claimed by (Nisbett et al., 2001; Varnum et al., 2010). They claimed that differences in cognitive styles correlated to differences in social orientations. For instance, Varnum and his associates observed that holistic cognitive style is associated with interdependence orientation while analytic cognitive style associated with independence orientation. Figure 2.2 below it indicates that social and economic systems have the impact on the development of the capacities of individuals better explained in section 2.4.3.2 below. For instance, Berry (1966) conducted a research to test the hypothesis that psychological tendencies develop as adaptations to geography, economy, social and culture. He concluded that environmental demands and cultural practices are significantly related to the development of ability and skills. Likewise, other scholars argue that neural processes vary across cultural groups and that environmental forces are acting on people of different locations continually shaping their capacity and skills (Davidson and McEwen, 2012; Chiao and Ambady, 2007; Han and Northoff, 2008; Kitayama and Uskul, 2011). Also, Nisbett et al. (2012) claimed that genes and environment contribute to making what human capability is. In other words, the ability to do things skilfully could be transferred genetically, but also created through social learning. In this case, therefore, the capacity to do things should make people identify and solve problems by analyzing, creating possible solutions and practically engaging in solving the challenges better described in the concept called *phronesis*²⁵ (Clegg and Ross-Smith, 2003; Flyvbjerg, 2008). The skills and knowledge gained are essential for the progression of skills and ability in each context. Therefore, it seems to suggest that Creativity of doing things involves both performance and knowledge acquisition components to novel challenges in changing environments. Hence, practical intelligence comes when both performance

²⁵ It means wisdom in determining ends and the means of attaining them

and acquisition components summoned to experiences with the aim of adapting and shaping to fitness in the fluctuating environments. Herrmann et al. (2007) claimed that cognitive abilities have evolved due to specific diverse environments. It helps individuals to have a capability of solving novel problems of their social lives meaning that they have what can be called social capability.

In the same way, Hsu and Fang (2009) observed that in today's business environment the firms make long-term profits and performance due to intangible capital. They further explained that intangible ability capital of the firm is significant in the development of new products. It appears humans developed cognitive abilities or skills much better than other species due to the reproduction process through social learning. In other words, culture has effects on cognitive abilities or skills (van Schaik and Burkart, 2011; Moll and Tomasello, 2007; Herrmann et al., 2007). This cultural intelligence is very vital for it involves both the development and evolution parts of its existence. Therefore, condemning some cultures as inferior to economic development does not help for the reason that people will be limited to develop their cognitive abilities outside their culture. This paragraph expounds more on the definition of culture in section 2.3 above captured as ICC in four proxies of culture. Furthermore, some empirical studies are discussed in the next sub-section to illuminate why different societies make different economic decisions.

2.4.2.1 Societies Make Different Decisions

Guss et al. (2010) conducted a study that involved 511 students from 5 different countries²⁶, and they concluded that Cross-national differences were noted in all complex problem-solving strategies and task-specific differences. It seems to suggest that individual skills in solving problems are culturally specific determined by ecological and socio-political context. Similarly, Hedden et al. (2008) researched participants from East Asian²⁷ cultures and those from Western contexts in North America and Western Europe. They observed that cultural differences in dimensions influence capacity and skills and dispositions differently. For instance, they noted that Western cultural contexts do well on tasks emphasizing independent aspects while those from East Asian settings emphasize interdependence dimensions of culture. That seems to suggest that all human undertakings are culturally specific. In other words, their ideas, values, feelings, skills, knowledge, beliefs attitudes, strategies, and goals embedded in cultural experiences (Heine, 2008; Richerson et al., 2010; Gifford, 2009). Hence, the claim that socio-cultural environment shapes and influences strategy formulation and

²⁶ Brazil, Germany, India, the Philippines, and the United States

²⁷ China, Japan, and Korea

their implementation in dealing with problems. The contexts become a foundation where people become experts in developing their strategies and using that knowledge in their application (Gauvain and Perez, 2007). It is essential because the experience they acquire and learn includes norms, values, skills, and standards and are equally regulated by them with any changes and desirability (Guss and Wiley, 2007). That leads to differences in socio-cultural and political systems developed according to their mode of preferences and capabilities which is the focus in the next sub-section.

2.4.2.2 Socio-cultural and Political systems

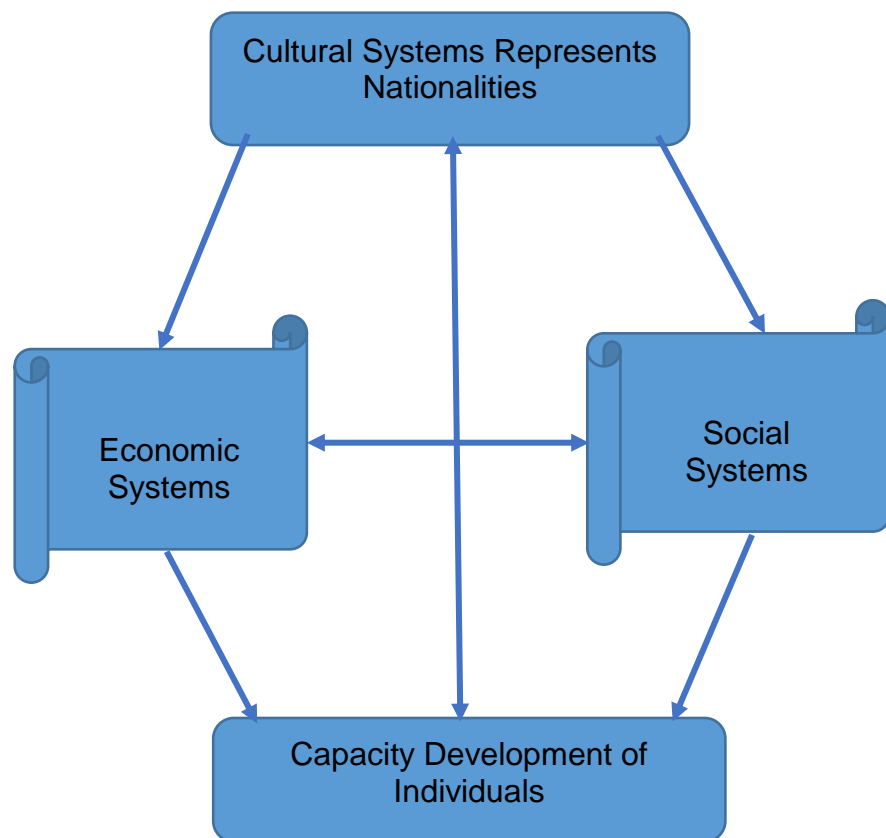
All classical and neoclassical theories discussed in section 2.2 above take up a rational, self-interested approach which is claimed not to be influenced by the social world. The assumption of theories based on the claim that self-interests of individuals pursuing their own goals as far as does not violate laws will be beneficial not only to the individual but the whole society (Smith, 1776). The self-interested individual outcomes associated with the welfare of the society metaphorically called an "invisible hand" by Smith. By contrast, Gintis (2007) raised some concerns on a rational actor model such that not all individual choices even if they are self-interested can always be welfare enhancing or consciously maximize anything. On the other hand, Marx (1906) claimed that the capacities of individuals develop according to the tasks assigned to in the economic production system. Hence, suggesting that individual welfare depends on the path of development of the individual's capacities as they engage in the tasks assigned. Hence, claim that "preference structures" are endogenous in the economic system and financial doings have the power of influence in almost all elements of social life. That appears to suggest that choices or preferences made by individuals for welfare do not only rely on qualities of goods and services but the environmental structures such as social organization institutions and economic institutions. Economic and organization institutions seem to contribute to the development of individual capacities (Gintis, 1972). Figure 2.2 below explains better what stated in the previous sentence. Savani et al. (2010) researched Americans and Indians participants on what construe actions as choices. Then they found that opportunities are contextual, socio-cultural systems of meanings and practices are shaping that.

Figure 2.2 below illustrates the point that the environment determines the development of the capacities of individuals. Also, the chart shows that cultural systems contribute to the formation of both economic and social networks which impact on the development of individuals. Therefore, the development of an individual's capacities depends on the interaction in the whole environment in which the individual located. Arguably, this is a dynamic relationship in that individual's thinking is not limited by culture, but their preferences or behaviors fluctuate according to different situations (Zou et al., 2009). It suggests that there is no one way of dealing with problems as

indicated by neoclassical theories, but, instead of skills, knowledge, ideas are updated according to purposes achieved in the pertinent situation and environment. Therefore, it is not legitimate to impose policies that have worked in developed countries to developing countries in enhancing economic development. The treatment of countries in one²⁸ overlooks the socio-cultural and political relations, intersubjective meanings and value in progress, and stochastic environments. The fact that neoclassical theories do not take into consideration the contribution of non-economic factors to economic development, the assumptions are part of the reason for the inequality of economic growth across countries, concerns are raised about the position of development theory about reducing people to isolated atoms open to market (Mill and Backhouse, 1997; Nurkse, 1966). Also, Myrdal (1957, 1968). He suggested that development theory has to include institutional and socio-cultural factors in economic development phenomenon. While on the same issue, Hirschman (1981) points out that the discipline of economics fails to deal with the reality of development by failing to take broader views of politics and social insights. In this case, therefore, political and economic powers in the world have to take into consideration the fact that economic factors and none economic factors contribute differently in enhancing or hindering economic progress in different societies.

²⁸Same box manner

Figure 2:2: Cultural systems and development of individual capacities



Notes. Capacity development of people could be due to economic and social systems in place in any society.

2.4.3 Institutional category

This category has also received attention in recent years in literature for explaining economic performance differences among countries. As a result, the developing countries were supported by developed countries to introduce democracy, neo-liberal rights, property rights, contract enforcement and reduction of corruption. All these brilliant ideas according to Keynes even though they are powerful and have tremendous influences, are defunct, yielding mixed results (Keynes, 1936:383). Of course, institutions are essential when formed with the right intentions. For instance, Williamson and Mathers (2011) empirically tested formal and informal institutions by operationalizing formal institutions as economic institutions by measuring (Gwartney et al., 2008), while informal institutions were operationalized by taking measurements from World Values Surveys. They concluded independently that culture and financial institutions contribute to economic prosperity. However, Acemoglu et al. (2001) noted that evil colonial institutions that existed many years ago could have long-lasting effects on the colonized countries. In other words, the way societies organize themselves are path dependent reflecting their history, economic, legal, political, social and moral institutions as expressed by (Bagella et al., 2002; Brohman, 1995; Greif, 1994;

Richerson et al., 2010). The inconsistency in literature for this category meticulously discussed in sub-sections 2.4.1 to 2.4.2 above. However, the variables embraced in this category are briefly discussed below.

2.4.3.1 Control of corruption (COC)

COC captures perceptions of the extent to which public power exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. See more information in Table 3.2 in chapter 3. Aidt et al. (2008, p. 209) observed that quality of institutions determines the extent of the contribution of corruption towards economic growth. They claimed that in regimes with the high quality of institutions corruption reduces economic growth in all specifications significantly. On the other hand, administrations of the low quality of institutions the effect of crime on economic growth are insignificant. Likewise, some authors argue that illegal operations of government institutions significantly reduce incentives and opportunities to invest and innovate (North, 1990; Schleifer, 1993). Hence, hurting economic growth. Furthermore, Tanzi (1998) empirically researched on the effects of corruption and observed that bribery adversely lowers the levels of investment, the productivity of public expenditure, revenue collection, investment in education, and health services. Consequently, the public resources are misallocated to agents of bureaucracy furnishing own non-productive projects (Del Monte and Papagni, 2001, p. 2). Despite, numerous studies are empirically verifying that corruption erodes investments in human resource development mainly in developing countries (Bukovansky, 2006, p. 191). The anti-corruption campaign seems not to yield tangible results in the states (Uberti, 2016). Therefore, causes of corruptions demand better scrutiny. The inconsistency in literature in the use of *de jure* and *de factor* capturing variables by depicting institutions could explain the discrepancies in developing countries. Hence, this thesis fills this gap by catching concepts with connotations of *de jure* and *de facto* institutions.

2.4.3.2 Government Effectiveness (GEF)

GEF identifies perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. The data come from World Governance Indicators) (WGI), and the scores range from -2.5 to 2.5, with higher scores corresponding to a higher level of government effectiveness. Anyanwu (2014, p. 475) conducted empirical research about the importance of GEF in explaining differences in economic growth. He observed that one unit increase of GEF in Africa enhanced economic development significantly by 0.166 percent. Likewise, Sa (2011, pp. 105-107) tested GEF and found

it significantly and positively contributes to economic growth in both developed and developing countries. The findings in both studies highlighted above seem to show that proper civic engagement, cooperation and coordination of inhabitants in developing countries mutually benefit and enhance the effectiveness of governments. It is in line with the observations of Putnam (1993, p. 2) that communities where SOC dictates fair play among people, adherence to the law breeds leaders who are honest and committed to equality in their communities. It also appears to suggest that failure of GEF in developing countries reflects what can be called uncivil societies whereby public affairs is someone else's business. Similarly, Rodrik (2000, pp. 2-3) suggested that social arrangements of social cooperation and trust, the rule of law, social and political institutions are crucial to solving economic and justice challenges in developing countries. It seems to suggest that the variables that proxies institutions by organizations such as WDI do reflect not only formal institutions but also informal institutions. There is a further consideration in the first paragraph of section 2.4 above.

2.4.3.3 Rule of law (ROL)

The capture of the ROL intends to gauge whether the law as a significant effect in both developed and developing countries. Acemoglu (2003) suggested that the rule in some countries is applied selectively. In countries where the law is selectively applied justice is in a dilemma. For instance, in contexts where unlimited political and economic power belongs to the elites, the authority entrusted to them is abused for the benefits of the few (Acemoglu, 2003, pp. 468-469). Consequently, weak civil cooperation is created leading to non-functional of the ROL (Stoelhorst and Richerson, 2013). Furthermore, non-functional of ROL derails the participation and effective implementation of human rights. Hence, less empowerment of citizens disrupts positive changes which could lead to the safe environment where participation and accountability in politics becomes a priority (UNDP, 2011, pp. 85-86). Therefore, ROL is crucially essential to promote capability and freedom of citizens and providing to them quality education, improved standard of living and healthy life (Lanzi, 2007, p. 424).

All in all, section 2.3 above has explained the culture definitions relevant to the purpose of this study. For instance, culture in this study proxies ICC in different forms namely: political capital, social capital, responsibility, hard work, and security. Also, gaps in the literature identified. Furthermore, section 2.4 clarifies and illustrates how ICC in part 2.3 relates to formal and informal institutions whereby socio-cultural and political systems formed by the interactions of social organization institutions and economic institutions. Importantly, section 2.2 above discusses the current theoretical assumptions and their relevance to existing economic realities relative to developed and developing contexts. The upshot, the interactions involving all variable categories

addressed in sections 2.2 to 2.4 above take place in the global environment. Hence, the next section explores more on how the global context impact on the importance of the variables explained above. Also, Table 2.3 below illustrates shortened and full institutional variables names and the assumptions portrayed in this institutional category is that:

H3a: ROL FER COC significantly contribute to economic growth

H3b: ROL FER COC do not significantly contribute to economic growth

H3c: ROL FER COC have an effect on economic growth

H3d: ROL FER COC have no effect on economic growth

Table 2.3: Shortened and complete names of institutional variables

Shortened variables	Complete names of variables
GEF	Government Effectiveness (Governance).
ROL	The rule of law
COC	Control of corruption

Notes. GEF and ROL were applied in chapter 4 while chapter engaged all the three variables.

2.5 GLOBALISATION²⁹ MOREOVER, ECONOMIC GROWTH

The concept of environment could mean global, regional, national, and tribal cultures. Global culture appears to influence every level of culture through a process called top-down according to (Erez and Gati, 2004). The milieu accompanied by global culture are technologies, media, market, and ways of economic and political organization. Hence, how people interact with an aggregate of surrounding things, conditions, and influences determines their economic success. It seems to suggest that human capability is crucially important in the global competitive environment. The focus here is on the globalization of the world economy whereby countries rely on each other concerning goods, services, and capital flows. For example, Intriligator (2004) highlighted some of the benefits of globalization such as reduction of goods, and services' costs, and prices. He, however, noted that the gains obtained through globalization raise concerns about increasing economic disparities between developing and developed countries. In 2004, Intriligator's concerns about economic disparities between developed and developing countries were also vindicated a decade later in

²⁹ means the processes through which national countries are crisscrossed and undermined by transnational actors with varying prospects of power, orientations, identities, and network (Beck, 2018)

the study of (Dabla-Norris et al., 2015). In their work, they observed that income inequality is not a challenge only in developing countries but also in developed countries. For example, their finding indicated that income inequality between the poor and the rich in developed countries is presented in the highest levels, while in emerging and developing countries there are uncertain outcomes (p.4). They further observed that even though income inequality seems to decline in emerging and developing countries, there remains the spread of injustices accessing key components of human development such as education, and financial services. The upshot of the work of Dabla-Norris et al. (2015) is that income inequality between developed and developing countries is increasing which provides a major challenge to the globalized economy. Even though globalization has successfully reduced trade barriers among countries, the gap between countries' standard of living seems to be increasing. For instance, in the survey conducted by Pew Research Centre (PRC, 2014) about 60% of the participants globally acknowledged that the inequality between the rich and the poor is a defining challenge of our time. In this global culture the autonomy of countries' governments and political control over their societies seems to be reduced (Bryant, 1994; Imai, 2006). The loss of control and autonomy could be due to a sudden and enormous increase of information, and capital flows. That has led to the unstoppable power of influence of multinational enterprises, International institutions like the World Bank, and International Monetary Fund. In this regard, in a globalized world, a problem is noted whereby countries will act differently to the same global changes. For example, Rey (2015) observed that prevailing economic conditions in important financial centers such as US, EU, and China determine international financial cycle through their ability to control cross-country credit flows. This seems to suggest that it is only those countries with the capabilities to compete in the global environment that enjoys the opportunities provided by globalization. In contrast, those countries which are less competitive are vulnerable to external competition (Slaughter, 1997; Thomas, 1997). Of course, globalization faces challenges in some countries due to differences in culture and political power (Brown and Jones, 1995; Dupont, 1996; Huntington, 1991). Ironically, this suggests that some countries retain their culture, autonomy, and power. Consequently, countries are affected differently by globalization. Hence, the national culture which represents the level of cultures at tribal and individual levels is of interest. This type of demonstration has been advocated in cross-cultural studies by authors such as (Boyadgiller et al., 1996; Hofstede, 1980; House et al., 1999; Schwartz, 1992). The question is "what happens at national culture in the presence of globalization?" Schein (1992) claimed that national culture is at the same level as organizational culture. Therefore, a national culture defined as people sharing beliefs, values, and norms and these play a crucial role in influencing their behaviors. Remarkably, at

organizational culture level implied as national level, there are interior dimensions such as innovation, attention to details, outcome orientation, risk-taking, and team focus as highlighted by (Miron et al., 2003; O'Reilly et al., 1991). So, the processes involved in global and national cultures are top-down and bottom-up respectively. The two processes represent the tension between the global and national cultures and are dynamic and very competitive. Western countries dominate this dynamic environment according to Thurow (2003, 2009) for the reason that they are economically empowered as they control about 57% of world GDP. Hence, the global culture mainly reflects the core values of western societies such as freedom of choice, individual rights and market liberalism (Gupta and Govindarajan, 2004). This type of environment according to Thurow (2003) is very competitive at the national level, which suggests that the countries that can innovate and adapt to the changing global and local environments could be able to survive in this global economy. It seems to suggest that the capabilities of countries determine success or failure of economic growth. However, the question is what determines capabilities? The next section explores more on the abilities of countries to compete in the global economy.

2.5.1 What determines capabilities?

Cantwell (2009) and Dunning (2009) contend that decisions on which countries establish Multinational Enterprises do not only depend on low transaction cost theories but the location of the country. The position of a nation has country-specific advantages which include the availability of natural resources, capabilities, and the type of institutions in operation. Skills and institutions work hand in hand with individuals through reflection that helps the formation of social organization and culture, but also how social organization and culture constrain and inform the individual (Elder Jr, 1994; Thomas and Znaniecki, 1920). Also, appears to suggest that the abilities and moral qualities rely on the formal and informal institutions of the specific country. Probably, this can be perceived as a human capability of interacting with the environment. Alternatively, it implies that the construction of the way of life by making decisions, what strategies and choices to pursue concerning local and global environments determines social outcomes such as the extent of economic growth in the countries. For instance, Kitayama and Uskul (2011) noted that cultural orientations contributed to their cultural differences in self, cognition, attention, and motivation. Also, Markus and Kitayama (2010) found that the capacity of people in a particular culture create a culture and shaped by the culture produced. Furthermore, Stoelhorst and Richerson (2013) claimed that human species have greater capabilities of organization than any other animal species as a result of this human capacity. Such being the case, humans have developed a culture that distinguishes them from other animals. This culture capacity

suggests that humans accumulate knowledge, ideas, skills, norms, and values that come as a result of humans interacting with the environment (Gowdy et al., 2013). It seems to agree with the aim of the thesis of exploring whether cultural factors enhance or hinder economic growth in the countries. Sections 2.3 and 2.4 above capture the accumulation of knowledge and differences between countries in formal and informal institutions. Does it mean humans interact with the environment differently? Probably yes, for instance, Wilson and Gowdy (2013) suggest that differences in economic growth and social outcomes are not the result of genetic differences among humans, but it is the result of organizational capabilities that maximize better strategies and choices on the scarce resources within their reach in the face of competition from others. Besides, differences in organizational capabilities are connected to the process called "niche construction" by (Brown and Richerson, 2013; Kendal et al., 2011; Odling-Smee et al., 2003) This process highlights the importance of feedback loops between humans and their environments leading to cultural and genetic variation as illustrated in Figure 2.1 above. The evolution mechanism in culture and genes provide explanations of how societies differ in dealing with challenges in their environments. These differences captured in sections 2.3 and 2.4 above. If this is the case in explaining economic growth differences between developed and developing countries, then globalization seems to be in opposition to the novelty of indigenous citizens dealing with the challenges in their context further explained as capability limitation in the next sub-section.

2.5.2 Limitation to capabilities

Since cultural and genetic evolution lead to accumulated improvement of skills, knowledge, values, and norms they provide further novel answers to challenges in respective environments. Then global culture limits the ability of the local people to meet the challenges in their countries. In other words, the wisdom in determining ends and the means of attaining them depends on the people in the contexts such as those in developing countries. According to Clegg and Ross-Smith (2003) and Flyvbjerg, (2008) intelligence (local wisdom) should make people face and solve their challenges by analyzing, creating possible solutions and practically engaging in addressing them. This claim is supported by Al Mamun (2008) who argued that the disregarding of accumulated local knowledge, skills, values damage the agenda of economic growth in developing countries. Also, Chambers (1985) observed that the centralized urban professional power, culture and values often override the local people's intelligence. The author hinted that the approach limits how indigenous people interact with their environment, hence the people having no congruent knowledge, skills in tackling their challenges. In so doing local people become lost in their environment due to an

overwhelming amount of knowledge and skills not relevant to their social organization and languages. The claim that human beings are unique in their range of environments helps to explain cultural variations regarding knowledge, skills, values, and norms and these are different in different contexts (Bucci and Segre, 2011; Henrich and McElreath, 2003; Sacco and Segre, 2009).

In literature, some examples seem to indicate that confidence in utilizing local wisdom has more significant economic growth impact than the application of global knowledge. For instance, Easterly (2006) gave an example of Sub-Saharan countries which received more foreign aid than the tiger nations such as Japan, South Korea, Taiwan, Singapore, and Thailand but managed to catch up with the developed countries. Easterly explained that the tiger nations had a more excellent self-reliance attitude than the Sub-Saharan countries. This begs the question: Why did all those brilliant ideas which worked in developed countries not yield the same results in developing countries? It appears to suggest that the wisdom offered was not congruent to African challenges. Nonetheless, this failure of brilliant ideas shoveled into developing nations (Rodrik, 2006). Paradoxically, the same author a decade later suggested that globalization has spurred economic growth in African countries (Rodrik, 2016, p.17). He observed that structural change and industrialization he criticized earlier on propelled economic growth in Africa. He further claimed that the globalization of the economy provided macroeconomic stability and improved governance in African countries (p.17). Similarly, Intriligator (2017) pointed out that generally, globalization enhances competition and expansion of markets that in turn lead to specialization and division of labour which improves production worldwide. As a result, there are reductions in prices and costs that fosters economic growth globally. On the contrary, Usman and Bashir (2018) noted that the Washington Consensus and the Neoliberal Approach's tenets of globalization had failed miserably in the African context.

Perhaps, Easterly (2006) was right that the contextual approach to solving their challenges in the tiger nations was right in the sense that they used their wisdom and intelligence to devise their policies that were suitable to their countries rather than implementing all the strategies suggested by the world institutions such as World Bank and International Monetary Fund. Alternatively, is it what Smith (1979) wrote that the structure of the global system causes the lack of sustainable economic growth in the developing countries? Easterly (2006) together with Smith (1979) seem to highlight developing countries' dependency on the wisdom of the tenets of the Global network; Whereby, the proponents of dependency theory, do not blame the internal characteristics of the developing nations on the failure of sustained economic growth in the countries. Instead, the blame is on the power of the developed countries who decide what is needed and not needed in the global system. Therefore, this perspective

implies that developing countries are subordinates in the order and that these countries cannot survive without accepting the position allocated to them. However, the theory fails to stand up with the empirical evidence of the countries which were in the same place as developing countries six decades ago such as Japan, China, Singapore, South Korea, and others and have managed to strikingly raise the living standard of people in their countries. Even though dependency theory does not take into consideration the internal characteristics of the developing countries, it is arguable that attitudes such as self-reliance, achievement motive, the determination which rely on the cultures present in these countries contribute to economic growth of the nations. In other words, the wisdom and intelligence abilities determine the level of economic growth of the nations. This position seems to agree with Herrnstein and Murray (1994, 2010) who claimed that intelligence ability of individuals predicated their productivity. Also, Rindermann and Thompson (2011) referred cognitive ability to intelligence which he said determines technology and other scientific achievements hence creating the wealth of the countries. These authors raised another point that the people with knowledge will form good economic and political institutions which in turn enhance economic growth in the countries. Cognitive abilities are connected with the receiving of the information, decoding and understanding it and storing as knowledge which can be applied well in the solving problems. In conclusion, this section and other sections above present eclectic of things explaining economic differences among countries. These explanations are generally crucial in determining the productivity and economic growth differences among nations further discussed in the next section.

2.6. TFP³⁰ AND, ECONOMIC GROWTH

Caselli (2005) in explaining cross-country differences in income per capita, argued that the existing literature attributes about 50% to efficiency differences among countries. He expounded the development function as:

$$\text{Outcome} = F(\text{input factors such as physical \& human capital, efficiency}) \dots \dots \dots (3)$$

Efficiency interpreted as residual³¹ in Solow's production function and is endorsed as the cause for poverty and underdevelopment. Therefore, the s expected that to counteract this ignorance it is important to improve the quality and measurement of the input factors. Caselli (2005) claimed that despite empirical researches conducted in this vein, the input factors in equation (3) above failed to account for differences in income per capita among countries. For example, Islam (1995) and Knight et al. 1992 used

³⁰ Total Factor Productivity

³¹ Measure of our ignorance

panel data analysis to estimate output from economic growth function in equation (3) above. Their findings indicated that physical capital and human capital (input factors) regarding accumulation did not explain the differences in economic growth among countries. However, they noted that country-specific effects determine differences in economic growth outcomes, these country-specific effects interpreted as TFP. Similarly, King and Levine (1994) together with Prescott (1998) used calibration approach and found that input factors in production function equation (3) above had limited power of explanation without large differences in TFP. Likewise, Bos et al. (2010) in explaining the growing differences in per capita income among countries, claimed that inefficiencies and different production technologies account for income per capita differences across countries. They pointed out that the assumptions of neoclassical theory that all countries are efficient and use the production inputs at best practice frontier technology are not consistent with their findings. They observed that countries use frontier technology with varying degrees of competence. The probable cause of differences to efficiencies could be attributed to the cultural values that embrace the production practices in the countries. This view would be consistent with Petrakis and Kostis (2013) who found that cultural background explains the unexplained efficiency in the production functions. They explained that cultural values affect the organization and function of institutions which determines the allocation and distribution of resources. So it appears to agree with the findings of De Jong (2009) who observed that culture defined as attitudes and values that permeate the society determines the level of development of the society or country. Nonetheless, Breton (2013) objected to the claim that TFP was larger than the contribution of physical and human capital. He explained that a good amount of TFP might be due to the error measurement of human capital. Hence, he interpreted Solow's residual as new technology and more efficient practices of management. That appears to agree with Restuccia and Rogerson (2013) who claimed that differences in income per capita across countries are not credited to TFP but allocation and misallocation of the input factors in the production function. Generally, despite these objections, there is a consistent agreement in the literature that differences in income per capita are due to TFP. For instance, Cazzavillan et al. (2013) researched the trade-off between education and total factor productivity in explaining per worker incomes differences between unlucky³² and lucky³³ countries. Then they observed that educational attainment levels and physical capital to some extent explained differences in income per worker between unlucky and lucky countries.

³² Sub-Saharan countries

³³ G7 countries

They also noted that technology variations between unlucky and lucky countries caused differences in per worker incomes; hence, unlucky countries appear to be trapped in poverty. They finally concluded that education matters for economic growth but fails to explain the larger part of differences in income per worker between unlucky and lucky countries. Instead, they suggested that TFP explains better the differences in income per worker between unlucky and lucky countries. However, Cazzavillan et al. (2013) interpreted TFP as technology progress in their research. Hence, the production function of the form was used:

$$Y = AK^\alpha (Lh)^{1-\alpha} \dots\dots\dots (4)$$

Where **K** is capital stock, **Lh** is quality workers adjusted so that **L** is some workers while **h** is human capital, **A** is TFP (technology progress). In their conclusion, they commented that differences across countries in capital accumulation and productivity lead to differences in income per worker which they ascribed to differences in social infrastructures³⁴. Their conclusion appears to agree with Bartolini and Bonatti (2008) who argued that social capital in the form of a measure of trust, work ethic and honesty in the society accounts for an increase of TFP. There is an association between social infrastructures and social capital, for instance, in a situation where there is honesty, trust in business contracts there is a reduction in costs of the firms. However, in the absence of these social capital traits firms are exposed to risk hence high costs incurred in dealing with the situation. Similarly, Grafton et al. (2004) investigated the role of social capital³⁵ also, social divergence³⁶ on TFP in a society. Then, they found that high levels of social divergence reduce both TFP and income per capita. TFP for each country was regarded as levels of output per worker which remained unexplained after taking away the contribution of physical and human capital. The levels of output per worker (TFP) was calculated in the formulae below:

$$Y_i = (K_i/Y_i)^{\alpha/(1-\alpha)} h_i TFP_i \dots\dots\dots (5)$$

Where **Y** is output per worker, **Y** is output, **K** is capital stock, **h** is human capital per worker. Then the authors anticipated that by knowing the value of α it could be possible to solve TFP. They obtained the values from (Hall and Jones, 1999). Furthermore, La Porta et al. (1997) argued that social capital raises TFP which implies that the

³⁴ As institutions and government policies that determine economic development within which individuals accumulate skills, and firms accumulate capital and produce output (Hall and Jones, 1999).

³⁵ Defined as the propensity of people in a society to cooperate to produce socially efficient outcomes and to avoid inefficient non-cooperative traps such as that in the prisoner's dilemma (Porta et al., (1997)

³⁶ Defined as the social barriers to communication and exchange between individuals and groups within a society (Grafton et al., 2004)

cooperation raised the productivity of social institutions. All in all, it appears that TFP is interpreted differently in literature, however, the explanation that social capital, cultural values, and attitudes are a source of productivity differences appeals and needs further exploration. In most cases, the production function of an endogenous growth model is displayed in the form:

$$Y = AK \dots\dots\dots(6)$$

This production function is advocated by (Lucas, 1988; Romer, 1986). The distinguishing difference with neoclassical theory model is that **A** stands for factors influencing technology, **K** stands for both physical and human capital. This model predicts no diminishing returns to **K** for the reason that investment in **K** has external effects that offset diminishing returns. The assumption is that investment in **K** that stands for both physical and human capital raises productivity that exceeds private benefits to social benefits. As illustrated above in section 2.2.4, endogenous theory's human capital takes a central role in explaining the productivity of the labor force. In other words, higher levels of human capital prompted higher productivity and economic growth. According to Becker (1962), human capital is made from education attainment levels. Furthermore, Lucas (1988) claimed that in the endogenous models there are two types of human capital such as internal and external human capitals. See more information 2.2.3.2 above. All in all, this section generally points out that productivity of countries depends on some input factors in the production function (4) embraced in this study. Therefore, many variables representing sections 2.2, 2.3, and 2.4 in categories of traditional, cultural and institutional variables will be investigated in this study while section 2.5 highlights the context the variables interact to achieve economic growth in countries.

2.7 CONCLUSION

In summary, the review of the literature provides the foundation to the claim that culture is worthwhile in determining economic growth differences among countries. For example, in section 2.3 above it is argued that culture construct has a long history and could imply many different forms (Geertz, 1973; Cochrane, 2006). On the other hand, Berry et al. (1992) explained the concept of culture as psychologically how the group creatively interacts with the environment, and how the group is culturally structured. It suggests that cultural evolution and institution formation happen as a result of human interaction with the situation. Also, section 2.5.1 above consolidates the previous argument by suggesting that the ability and moral qualities rely on the formal and informal institutions of the specific country. That implies that the construction of the way of life by making decisions about what strategies and choices to pursue concerning

local and global environments determines social outcomes such as economic growth or lack of sustainable economic growth.

Furthermore, section 2.4.1 above highlights the importance of geography, critical history juncture, and colonialism in the development of cultural values that determine the worldviews or preferences differences among the societies. It appears to suggest that cultural and genetic evolution leads to accumulated improvement of skills, knowledge, values, and norms which further provide new answers to challenges in respective environments. Therefore, the superiority of global culture over national or local cultures by disregarding accumulated local knowledge, skills, values misappropriate the agenda of economic growth as noted by (Al Mamun, 2008). Regarding economic growth, economic factors such as capital, labor, and human capital are not the only factors that enhance economic growth but also cultural factors such as efficient and social orientations (Petrakis and Kostis, 2013). Therefore, the claim that human beings are unique in their range of environments helps to explain that cultural variations concerning knowledge, skills, values and norms and these are different in different contexts (Bucci and Segre, 2011; Henrich and McElreath, 2003; Sacco and Segre, 2009).

Furthermore, section 2.5 above briefly explained that preferences and motivations of individuals are subject to attitudes, beliefs, and norms of the individual's environment and acquired through social learning (Boyd and Richerson, 1990). Hence, international differences in the cultural system both at individual and society levels suggest different approaches essential in dealing with the challenges or problems. Cultural systems differ in orientations, attitudes or values, for instance, Hofstede (1980, 1984) categorized values in the following dimensions: individualism versus collectivism, power distance, uncertainty avoidance and masculinity versus femininity. It appears to suggest that different cultural systems lead to various economic and social policies that impact on the capability development of people see Figure 2.2 above. Sternberg (2004) argued that trying to define intelligence out of its cultural context is not doing justice for it could lead to the imposition of dominating culture's definitions of knowledge about other cultures. Since cultural systems are different from one context to another, then behaviors can be interpreted differently. Therefore, condemning some cultures as inferior to economic development does not help for the reason that people will be limited to develop their cognitive abilities outside their culture.

Of course, many kinds of research have been done to explain economic disparities across countries, but they have given inconclusive results due to different definitions of cultural, institutional and economic variables. Many theories, techniques, and methods have been employed to explain and reduce economic disparities across

countries, but in reality, the gap is widening between the developed and developing countries. That may suggest that not all ideas or policies implemented in the developing nations were appropriate in dealing with developing countries underdevelopment. For example, Easterly (2007) claimed that economist appears to know the answers to economic development. He, however, noted that the solutions have been changing from time to time. From 1950's to about 1970's economists generally emphasized more on capital accumulation (investment); hence, policies encouraged developing countries borrowing money from international institutions to build infrastructures in the developing nations. However, the results were unconvincing, then the introduction of structural adjustment through WC emphasizing on free markets, opening to trade, and reducing deficits. That too did not deter underdevelopment in developing countries. Another reform emphasized in right institutions as explanations to backwardness. The developing countries were supported to introduce democracy, neo-liberal rights, property rights, contract enforcement and reduction of corruption. All these brilliant ideas or policies as highlighted by Keynes above had tremendous influences but with mixed results. For instance, Easterly (2006) gave an example of SSC received more foreign aid than the tiger nations (Japan, South Korea, Taiwan, Singapore, and Thailand), but the tiger nations caught up with developed countries. Easterly explained that the tiger nations had a more excellent self-reliance attitude than the SSC. It begs the question for all those brilliant ideas which worked in developed countries but did not yield the same results in developing countries. Perhaps, Easterly was right that the mental aptitude for the tiger nations was right in the sense that they used their intelligence to devise their policies that were suitable to their countries rather than implementing all the strategies suggested by the world institutions.

Lastly, section 2.2 above presents the theoretical explanations for economic development differences. This section notes that classical and neoclassical theories have provided to policy-makers wisdom to reduce economic disparities across countries, but there are no convincing results to explain the phenomena. In this regard, the approach used in this study is the endogenous theory but the factors of production such as capital, human capital, and education defined regarding cultural influences. The variables incorporated in the production function (model) as expressed in an equation four above are in chapter 3 section 3.3. All in all, the study's purpose is to investigate if cultural variables explain economic disparities between developed and developing countries. The findings in chapters 4 and 5 explored further in chapter 6.

CHAPTER 3: RESEARCH METHODOLOGY

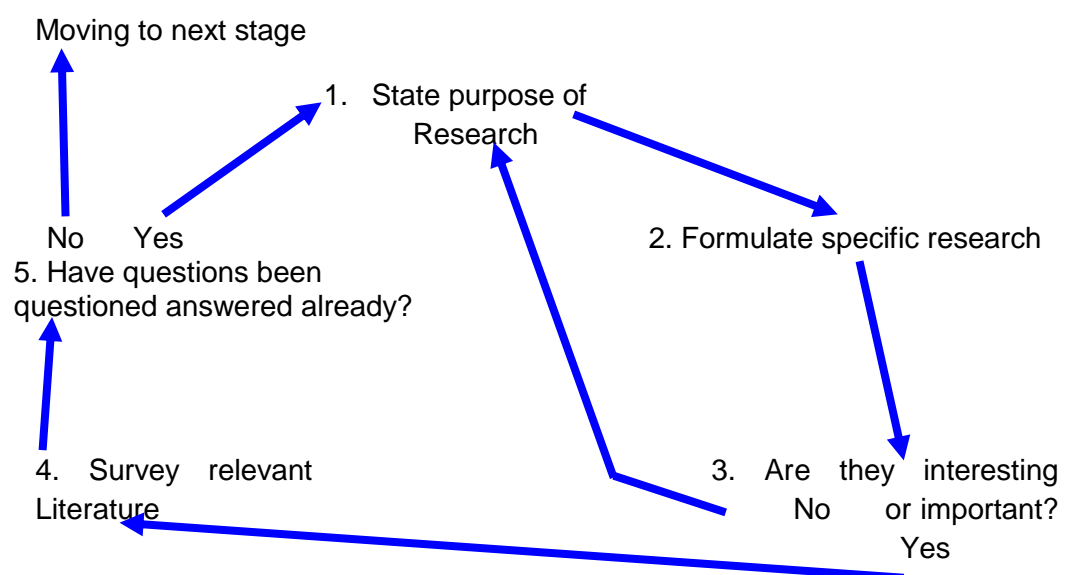
3.1 INTRODUCTION

This chapter describes how the investigation of the thesis has been designed and implemented to meet the purpose of this thesis. The research organization adopted for the study is a mixed methods design. This design is further discussed in section 3.2 below. Following this section is the research questions, and objectives and hypotheses of the thesis explained in section 3.2. The research design is explained in section 3.3. On the other hand, secondary data analysis is discussed in section 3.4. The discussion in section 3.5 includes model design, variables, and their specifications. Furthermore, section 3.6 presents the approach of multi-case study while section 3.7 presents data sources, collection, and data management. Then the conclusion is in section 3.8.

3.2 RESEARCH QUESTIONS

Taking into consideration that the identification and formulation of questions are critical in determining research design, the model in Figure 3.1 was adopted because it fitted well with the purpose of the thesis compared to other models suggested in the literature. See the purpose of the thesis in the next section. The figure shows each stage of the formulation of the specific research questions in a manner more comfortable to follow.

Figure 3.1 Identifying research questions



Notes. Identifying research questions as indicated by (Collis and Hussey, 2014). The figure has five stages with arrows indicating the directions of the formulation of questions.

3.2.1 Purpose of study

The purpose of this study is to find out whether, and to what extent, cultural factors contribute to differences in economic development across countries. To do this, Table 3.2 below presents all variables engaged in the thesis with their definitions and sources. These variables compared concerning their importance in enhancing economic development across countries. Economic development generally measured as GDP per capita reflecting the standard of living in each country selected for the study. As suggested by Locke et al. (2013), the intentions of the study are set out in the following objectives.

3.2.1.1 Aims and Objectives

This thesis focuses on cultural factors to examine whether differences in cultural factors contribute to differences in economic disparities among countries. For this reason, the thesis focuses primarily upon Sub-Saharan countries, because the region is failing to reduce the gap of the standards of living between the region and developed countries (Malamud and Assane, 2013); Ndulu et al., 2007). What causes the underperformance in this region? Is it the continent's cultural values? It is what motivates the study. Hence, the thesis aims:

- To identify the causes of economic disparities between developed and developing countries and suggest possible ways of addressing the challenge of slow and erratic economic growth in developing countries
- To identify cultural values that hinder economic development in developing countries
- To identify and explore the values that are vital in promoting economic, social and human capacity development

The purpose of the thesis is rooted in the reasons for undertaking the study among which is to explore, identify, detect, describe and explain the phenomenon to bring about change as highlighted by (Robson, 2002). Consequently, this leads to the formulation of research questions that direct the study to attempt to investigate and answer the intentions of the study. Figure 3.1 above demonstrates how the research questions were formulated to fit in with the primary research question.

The Main question: Can culture influence economic growth?: An examination of the impact of cultural factors on economic growth in developing economies

The research questions in Figure 3.2 below reflect the purpose of study in generating the answers to the phenomenon. While at the same time the questions are also directed to unknown elements of the phenomenon as perceived by (Maxwell and Loomis, 2003). This study gets inspiration from the challenge of the widening gap in

income per capita between developed and developing countries regardless of all the efforts exhausted in dealing with the situation. For this to happen the study investigated the existing literature in chapter 2 and inconsistencies are identified, which this thesis intends to investigate. In this regard, this study attempts to answer the central question posed above. Hence, finding out the extent of influence of each variable on economic development will be piloted by research questions in each chapter as demonstrated in Figure 3.2 below. The variables tested for their association or causality about empirical evidence reflecting deductive and quantitative methods of analysis. The models underpin the theoretical framework which provides the foundation for the research questions that emerge from the central research question clarified above. Table 3.1 below illustrates the shortened names and complete names of the variables in all the categories.

Table 3.1: Condensed and full names of the variables in respective categories

Condensed variable	Complete variable name
Traditional category	
GDPPC	GDP per capita based on purchasing power parity (PPP)
EMP	Employment to population ratio (%)
HDI	The Human Development Index
IGS	Imports of goods and services (current US\$)
RKN	Real capital stock an (in thousands 2005US\$)
TED	Population with tertiary education (%)
HCT	Index of human capital per person on years of schooling
EGS	Exports of goods and services (%)
FDI	Foreign direct investment (current US\$)
AID	Foreign aid to developing countries
GRS	Gross Domestic Saving (%)
GCI	The Global Competitiveness Index
ETR	New business density (new registrations per 1,000 people)
Institutional category	
GEF	Government Effectiveness (Governance)
ROL	The rule of law (Governance)
COC	Control of corruption (Governance)
Cultural category	
HWK	Hard work
CPR	Civic capital
SOC	Social capital
FER	Feeling Responsibility
REG	Religion
SEC	Security

Notes. Each variable is shown in its respective category

3.2.2 Hypotheses

Hence, hypotheses empirically examined in chapters 4 and 5 respectively in categories as discussed in chapter 2 are as follows:

3.2.2.1 Traditional category hypotheses

H1a: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR AID significantly contribute to economic growth

H1b: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR do not significantly Contribute to economic growth

H1c: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR has an effect on economic growth

H1d: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR has no effect on economic growth

3.2.2.2 Cultural category hypotheses

H2a: HWK CPR SOC FER REG SEC significantly contribute to economic growth

H2b: HWK CPR SOC FER REG SEC do not significantly contribute to economic Growth

H2c: HWK CPR SOC FER REG SEC have an effect on economic growth

H2d: HWK CPR SOC FER REG SEC have no effect on economic growth

3.2.2.3 Institutional category hypotheses

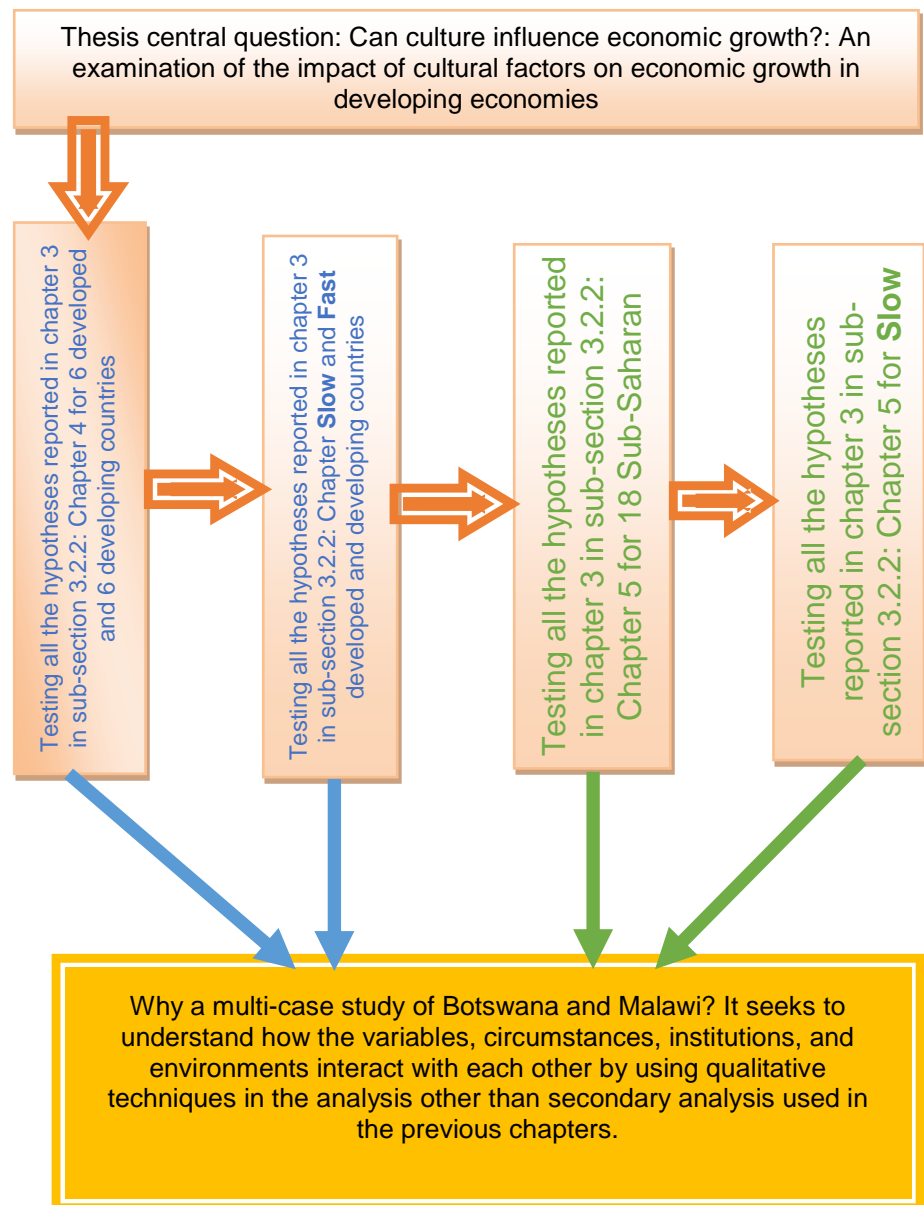
H3a: ROL FER COC significantly contribute to economic growth

H3b: ROL FER COC do not significantly contribute to economic growth

H3c: ROL FER COC have an effect on economic growth

H3d: ROL FER COC have no effect on economic growth

Figure 3.2: Hypotheses testing framework



Notes. The figure indicates the scheme of the thesis investigation

3.3 MIXED RESEARCH DESIGN

The mixed methods design is not without criticism. For instance, the positivist and interpretivist approaches have distinct ways of investigating. That leads to differences in the way knowledge created. Hence it is challenging for the scholars in one school to accept the knowledge made by the other school. It suggests that variation in the procedures for the construction of knowledge in the approaches could lead to different conclusions. Besides, positivism assumes that social reality is objective and external to the researcher. In contrast, interpretivism assumes that social reality is subjective and socially constructed. Despite the criticism leveled against mixing the positivist and interpretivist approaches, the increasing gap in economic development

between developed and developing countries needs the insight of both approaches. Hence, this study engaged in procedures that enabled the investigation to use the mixed methods approach. The three designs of the procedures used to engage both quantitative and qualitative approaches are triangulation, development, and complementary designs which further explained in the next sub-sections.

3.3.1 Triangulation strategy

Triangulation strategy in this study mainly applied to mix quantitative and qualitative methodologies whereby the distinct methods complement each other as claimed by (Webb et al., 1966; Smith, 1975; Denzin, 1978). Triangulation approach to research has recently attracted support from many scholars because according to Bouchard Jr (1976, p. 268) the agreement of the results between two methods increases external validity. Furthermore, Denzin (1978, p. 301) observes that triangulation can also be applied in within-method, for example, he claims that application of varieties of techniques within a method through data collection and interpretation is a form of triangulation. Nonetheless, Jick (1979, p. 603) argues that using a collection of data as a form of triangulation is the simplest form. Hence, more complex designs are desired for better validation of the results. However, according to Glaser and Strauss (1965, p. 7) regularly observation of qualitative data particularly participants of multiple groups increases internal validity of the findings. Hence, this thesis utilized mixing methods and constant data collection from multiple groups forms of triangulation to reinforce the external and internal validity of thesis findings.

The variables in chapters 4 and 5 were merged from different data sources. For instance, data collected through World Values Surveys (WVS) and Afrobarometer Surveys (AS) were used to generated variables in a cultural category using EFA and CFA techniques. However, some cultural variables did not go through EFA and CFA techniques, but instead, the variables gathered through surveys were transformed into means by using Stata software so that statistical analysis techniques such as the Ordinary Least Squares (OLS) can be used. Furthermore, the data gathered from other sources that did not need any transformations were merged with cultural variables in chapters 4 and 5 respectively. Therefore, triangulation happened at methods and data levels. Of course, in the process of doing triangulation design, other designs played a part such as development design, clarified more in the next sub-section.

3.3.2 Development strategy

This strategy fits in well with this study because the three analytical chapters designed in the way that there are three stages involved. The first stage is for chapter 4, the second stage is chapter 5, and the third stage in chapter 6. As illustrated in the previous section the first two stages use a quantitative approach (see Figure 3.2 above). In this approach, it perceived that the phenomenon is objective and external to the

researcher. Hence, the findings considered valid knowledge depicting the phenomenon as illustrated by (Collis and Hussey, 2014). Moreover, these two chapters sequentially executed. The findings of chapter 4 enhanced the selection of the sample, and development of analysis of chapter 5. The development design is ideal for this study because chapters 4 and 5 embrace the same type of approach as the claim of (Greene et al., 1989). Also, both chapters used OLS estimation technique. It is done so that cause and effect between the dependent variable and independent variables can be estimated. Hence, the approach adheres to quantitative approaches of determinism, reductionism, and detailed observations and measurement of variables as perceived by (Denzin and Lincoln, 2005). Consequently, chapters 4 and 5 provide the basis for testing theory and provide careful observations by measurement of objective reality existing out there in the world. The third stage mentioned earlier on in this section further explained in the next design. The arrangement of the empirical chapters 4, 5, and 6 disclose the development aspect of the mixed design. For example, the findings in chapter 4 lead to the investigation of chapter 5. This element of instituting the investigation of another chapter is what regarded as developmental design. It is different from triangulation design because triangulation in this study took place when more than one data source used, and more than one technique was used to transform data and merge variables to one dataset for the investigation, mainly in chapters 4 and 5. That was not all for the mixed methods design. Hence, the findings in chapter 4 and 5 lead to chapter 6 which is the next focus.

3.3.3 Complementary strategy

This design connects the results from quantitative chapters 4 and 5 to chapter 6 which is a multi-case study. Therefore, the results of the multi-case study using a qualitative approach confirms or verifies the results of quantitative chapters as noted by (Greene et al., 1989). In this phase, qualitative data not transformed into quantitative data. Instead, the findings based on qualitative methods of analysis in line with the qualitative paradigm as expressed by (Corbin and Strauss, 2008). In other words, according to Kane and Trochim (2007), the data collected through surveys (primary or secondary) are represented quantitatively by methods. However, this quantitative information rests upon qualitative judgment (Corbin and Strauss, 2008; Trochim and Donnelly, 2001). It suggests that quantitative and qualitative information is intertwined, hence, making it possible for them to mix in the research design. Subsequently, the primary aim of this complementary design is to follow-up the findings in chapter 5 focussing mainly on how the cultural category performed by using statistical analysis techniques. This follow-up uses different qualitative analysis techniques that capture all the participants in the surveys other than reducing to means as applied in chapters 4 and 5. Therefore, quantitative and qualitative approaches in this study build on each

other such as using estimation techniques in chapters 4 and 5 and interpreting output results and generalizing the findings to context by qualitative knowledge (Coll and Chapman, 2000; Reichardt and Cook, 1979).

3.2.4 Justification for mixed method design

The previous sections have discussed triangulation, development, and complementary strategies under the mixed method design. These strategies within the mixed methods design regarded as *the sequential explanatory scheme* (ESS). The ESS provides an opportunity to link the findings in chapters 4 and 5 to multi-case study in chapter 6 as illustrated in Figure 3.2 above. Hence, the combination of quantitative and qualitative approaches within ESS complement each other and permit a more robust analysis, taking advantage of the strengths of quantitative and qualitative approaches as recommended by (Greene et al., 1989; Greene and Caracelli, 1997; Miles and Huberman, 1994). Nonetheless, mixed methods design adopted is not without disadvantages. For instance, quantitative approach embraces the premise that social entities exist which is external to social actors. Hence, this approach advocates value independent observations, and observed facts confirm the relevance of theories through hypothetical-deductive technique (Bryman and Bell, 2011). In this realm, knowledge exists independently of social actors. In contrast, the qualitative approach supports the view that social phenomenon created from the perceptions and subsequent actions of social actors (Saunders et al., 2012). It also claimed that the process of social interaction impacts the social phenomenon which continually subjected to changes. So subjective knowledge is in most cases conditioned in an individual's mind and regarded as the justified true belief by (Plato and McDowell, 1973).

Despite the opposing views of quantitative and qualitative approaches, the combination in ESS did not conflict the opposing views since the findings in chapters 4 and 5 are verified by chapter 6 as recommended in the literature (Morgan, 2007). Also, the mixing of the opposing views happened during data collection such as using surveys as a method for data collection as noted by (Shulman, 1998; Morse and Niehaus, 2009). Thus, the mixed methods design used in this thesis engaged distinct frameworks of both quantitative and qualitative paradigms to answer the research questions within this thesis as indicated by (DePoy and Gitlin, 1994). Therefore, implementing a mixed research design in this thesis enables the investigation of how each variable in the study, environments, and institutions interact with each other in different contexts to produce measured effects. Hence, ESS is chosen to attempt to answer why there is different economic growth among countries. As a result, the emphasis on the mixed methods design is on research purpose, research questions, and the context of study or research problem. That is why the use of ESS is of significance in the thesis rather

than other designs such as embedded, transformative, exploratory, and multiphase designs. These designs have one common feature of violating the opposing views of the quantitative and qualitative approaches. Hence, they were not suitable for the purpose and objectives of this thesis. Therefore, ESS adds validity and quality to the findings of the thesis.

3.4 SECONDARY DATA ANALYSIS (SDA)

SDA in this thesis involved longitudinal survey whereby data collection of a chosen sample of countries were followed up over time. This type of study provides multiple observations which can be used to compare the differences in economic growth among countries. Hence, the data collection would help identify trends, differences, and relationships and assist comparison between countries. Therefore, using the best aspects of macro and micro secondary data analysis, in a mixed method approach, in 2 empirical chapters. The second part of a multi-case study is used to drill deeper into questions of how impacts arise in different countries and how different cultural and institutional variables may impact upon economic development in practice.

3.4.1 Model design

Chapter 2 reveals that many economic theories have been utilized to explain economic disparities across countries, but, up to the present time, the level of income disparities between developed and developing countries have been increasing. Classical, and neo-classical theories have guided policy and wisdom in reducing the disparities between developed and developing countries but seem not to produce the desired outcomes. In this regard, the model advanced in this study incorporates traditional, institutional and cultural categories of variables. This model uses OLS technique that makes it possible to obtain the unknown parameter for each independent variable due to ceteris paribus interpretation. This condition offers the ability to control other variables while monitoring one independent variable's effect on the dependent variable (Wooldridge, 2013). The model assumes that the standard production functions appropriate to explaining economic disparities among countries given as follows:

$$Y = AK^{\alpha} (LH)^{1-\alpha} \dots\dots\dots(1)$$

Y = income output, K = physical capital, L = unskilled labour, H = human capital, A denoted TFP interpreted as social infrastructure, see section 2.5.5 in chapter 2 for more details. Therefore, the model assumes that traditional variable interactions occur in the context of cultural values represented by A that is TFP. The cultural category variables included in the model depicts TFP differences across countries, and the model in equation (1) above is empirically tested in chapters 4 and 5 as indicated in the models below respectively. Hence, this thesis investigates how each variable in the study,

environments, and institutions interact with each other in different contexts to produce measured effects.

The empirical investigation executed in chapters 4 and 5. Chapter 4 has two sub-samples of six developed and six developing countries each of which further divided into slow and fast economies. The number of countries in each sub-sample was limited to 6 due to the inconsistency of WVS in mainly developing countries. Hence, a subsample of 6 developed countries was deliberately designed to give the same conditions regarding the number of observations so that the estimation of parameters is not biased (Wald, 1948, p. 220). Similarly, chapter 5 has a sub-sample of 18 Sub-Saharan countries selected through a technique called purposive sampling as suggested by (Guarte, 2006, p. 277). Besides, the findings in chapter 4 such as reduction of GDP per capita by capital stock in developing countries while increasing GDP per capita in developed countries seem to contradict the catching-up effect of neo-classical theory. Hence, increasing the number of developing countries to investigate further the finding in chapter 4 was of interest to meet the purpose of the thesis. Furthermore, the findings in chapter 5 indicated that SSC seems not to have homogenous cultural settings and countries experience different economic growth.

For this reason, further investigation is effected in chapter 6 as a multi-case study for Botswana and Malawi by using a convenient sampling of the units of study (Etikan, 2016, p. 1). The multi-case study chapter, therefore, seeks to drill down below the macro data to try to put some of the findings from the other two empirical chapters into context and to explain apparent anomalies. It therefore strengthens and compliments the secondary data analysis done in chapters 4 and 5. This thesis, therefore, investigates which variables determine economic growth in countries. The definitions of variables from all the categories presented in Table 3.2 below. These variables systematically tested as presented in Figure 3.2 whereby research questions asked at each stage of the investigation. Also, Figure 3.2 above shows the sequence of questions in each chapter leading to the thesis answers addressed in the empirical chapters. As previously stated all the three categories of variables are incorporated in the models for chapters 4 and 5 as presented in equations 2 and 3 respectively below.

$$GDPPC(Y) = a_0 + a_1EMP + a_2HDI + a_3IGS + a_4RKN + a_5TED + a_6EGS + a_7FDI + a_8GCI + a_9GRS + a_{10}ETR + a_{11}ROL + a_{12}GEF + a_{13}HWK + a_{14}CPR + a_{15}SOC + a_{16}FER + a_{17}REG + \mu \dots\dots\dots(2)$$

$$GDPPC(Y) = a_0 + a_1EMP + a_2HDI + a_3IGS + a_4RKN + a_5HCT + a_6EGS + a_7AID + a_8GCI + a_9GRS + a_{10}ETR + a_{11}ROL + a_{12}GEF + a_{13}COC + a_{14}CPR + a_{15}SOC + a_{16}REG + a_{17}SEC + \mu \dots\dots\dots(3)$$

3.4.2 Description of Variables

The variables engaged in this thesis follow the production function demonstrated under section 3.3.1 above. Hence, variables are structured in three core areas, namely: traditional, institutional and cultural variables. The variables took different units and demonstrated in Table 3.2 below. The definitions of variables and their sources also presented in Table 3.2 below. Countries engaged in chapter 4 are presented in Tables 4.2 and 4.3, while countries for chapter 5 displayed in Table 5.3.

Table 3.2: Variable sources and definitions

(1)	(2)	(3)
Variables	Definition	Sources of Variables
GDPPC	GDP per capita based on purchasing power parity (PPP). PPP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It calculated without making deductions for depreciation of fabricated assets or depletion and degradation of nature.	World Bank: World Governance Indicators
EMP	Employment to population ratio (%) is the proportion of a country's population that is employed. Ages 15 and older are generally considered the working-age population. This ratio includes those not working due to illness, childcare problems or vacation.	International Labour Organization
HDI	The Human Development Index is a summary measure of average achievement in critical dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. HDI value range from 0 to 1, 0 indicates no development while 1 very high development.	United Nations development programme
IGS	Imports of goods and services (current US\$) comprise all transactions between residents of a country and the rest of the world involving a change of ownership from nonresidents to residents of general merchandise, nonmonetary gold, and services.	World Bank: World Governance Indicators
RKN	Real capital stock an (in thousands 2005US\$) This capital also represents material goods*/ structure*/ tools, machines, buildings, infrastructure- which contribute to the production process, traditionally represented as physical capital in production functions.	Penn World Tables 9.0.
TED	Population with tertiary education (%) defined as those having completed the highest level of education, by age group. It includes both theoretical programmes leading to advanced research or high skill professions such as medicine and more vocational programmes leading to the labor market. The measure is a percentage of the same age population.	UNESCO: World Bank
HCT	Index of human capital per person, based on years of schooling	Penn World Tables 9 (Barro & Lee, 2012; Psacharopoulos, 1994)
EGS	Exports of goods and services (%) represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.	World Bank: World Governance Indicators
FDI	Foreign direct investment (current US\$) refers to direct investment equity flows in the reporting economy. It is the sum of equity capital, reinvestment of earnings, and other capital. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. Ownership of 10 percent or more of the ordinary shares of voting stock is the criterion for determining the existence of a direct investment relationship.	World Bank: World Governance Indicators
AID	Development assistance to developing countries mainly from developed countries	World Bank: World Governance Indicators
GRS	Gross Domestic Saving (%) is GDP minus final consumption expenditure.	World Bank: World Governance Indicators
GCI	The Global Competitiveness Index attempts to quantify the impact of some key factors which contribute to creating the conditions for competitiveness, with a particular focus on the macroeconomic environment, the quality of the country's institutions, and the state of the country's technology and supporting infrastructure. GCI evaluates the productivity and efficiency of countries ranging from 1 to 7, 1 being the lowest and 7 the highest	United Nations development programme
ETR	New business density (new registrations per 1,000 people ages 15-64): In other words: New businesses registered are the number of newly limited liability corporations registered in the calendar year.	World Bank's Entrepreneurship Survey and database
GDPPCG	Annual percentage growth rate of GDP per capita at market prices based on constant local currency. Aggregates based on constant 2010 U.S. dollars. An economy's growth measured by the change in the volume of its output or the real incomes of its residents.	World Development Indicators
GEF	Government Effectiveness (Governance) captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. It also captures governance defined by UNESCO as structures and processes that are designed to ensure	Worldwide Governance Indicators (WGI)

	accountability, transparency, responsiveness, the rule of law, stability, equity and inclusiveness, empowerment, and broad-based participation. Governance also represents the norms, values, and rules of the game through which public affairs managed in a manner that is transparent, participatory, inclusive and responsive. This rank score 0 means the lowest while 100 the highest.	
ROL	The rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. This rank score 0 means the lowest while 100 the highest.	Worldwide Governance Indicators (WGI)
COC	Control of Corruption captures perceptions of the extent to which public power exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. This rank score 0 means the lowest while 100 the highest.	Worldwide Governance Indicators (WGI)
Cultural Variables		
HWK	Hard work in this study defined as personal accountability and self-determination that economic success is as a result of their effort. People with this trait of quality they work harder to increase their productivity for greater payoff in return increase their welfare	World Values Survey from 1994 to 2014
CPR	Civic capital in this study described as the ability of citizens in respective countries of coming together in unison for the construction of solutions to the current challenges for better social outcomes such as economic development. This concept captures how cultural capital enhances or hinders strategies of actions directed towards positive social outcomes in the societies. This concept comes as a latent variable from factorized variables. See Table 3.5 for more details	World Values Surveys from 1994 to 2014; Afrobarometer Surveys from 2001 to 2015.
SOC	Social capital represented as the network or interpersonal trust of citizens. It assumed in this study that elected officials in government performance or governance determine trust capital or social capital levels that reciprocally determines economic performance of countries. See Table 3.5 how the latent variable of civic capital was generated respectively in chapters 4 and 5.	World Values Surveys from 1994 to 2014; Afrobarometer Surveys from 2001 to 2015.
FER	Defined as the sense of responsibility and personal motivation to engage in public affairs responsibly guided by moral ethics to maximize outcomes. That is an outstanding quality to encourage children to learn at home see more details of this variable in Appendix 3 that gives the possibility of comparing the feeling of people in developed and developing countries.	World Values Surveys from 1994 to 2014;
REG	This variable can have an impact on economic growth directly or indirectly whereby religious beliefs may shape institutions or order the individual behaviors which could promote or hinder economic growth. This variable captured from the question: How important is religion in life? The tenets of the importance of religion implied in belief in God, heaven, and hell. See more details in Table 3.5.	World Values Surveys from 1994 to 2014; Afrobarometer Surveys from 2001 to 2015.
SEC	Defined as freedom from fear of violence that includes theft, war, bodily harm, terrorism and being robbed of materials or properties hardly acquired. This concept comes as a latent variable from factorized variables Q9B to Q10B of Afrobarometer surveys from 2001 to 2015.	Afrobarometer Surveys from 2001 to 2015.

Notes. Column (1) shows a dependent variable and independent variables. Column (2) gives the definitions of the variables and lastly, column (3) gives sources of variables.

3.4.3 Identification outliers and testing the robustness of the models

This section focuses on preliminary analysis. It is the first stage of familiarising with data so that outliers, trends over time, proportions, distributions, and extreme values can be identified. The narrative techniques are used to show variations of the units of study in graphs, histogram, averages, median, mode, and frequencies. The stage is regarded as the exploration in diagrams to understand data as noted by (Tukey, 1977). After that, the second stage of examining relationships, differences, and trends done by using OLS method (Dillon and Goldstein, 1984). However, before any form of OLS estimation in the second stage, data must be verified if it meets the assumptions of OLS regression. Figures 3.3, 3.4, and 3.5 for OLS1(combined), OLS2 (developed), and OLS3 (developing) respectively for models in Table 4.5 in chapter 4 indicate the models meet OLS regression assumptions.

Similarly, Figure 3.6 for OLS1SSC in Table 5.4 in chapter 5 meets the OLS regression assumptions. Also, normality was also tested by checking severity outliers in the models demonstrated in Table 3.7 below. The models for chapters 4 and 5 passed the test, confirming the observation made in Figures 3.3, 3.4, 3.5, and 3.6 as explained above. Hence, all the models engaged in the thesis meets the OLS estimation requirements and results could not be misleading. Also, the influence of the observations in the datasets for both chapters 4 and 5 are measured by using Cook's D technique. According to Cook and Weisberg (1982) if D is greater than 1, then the observation has considerable influence. The highest influence of observation in the dataset for chapter 4 is 0.39 while in chapter 5 dataset is 0.064. That shows that in both datasets the influence of observations is less than 1. Hence, there is no reason for concern of outlier observations of the countries in both representative samples. Furthermore, Tables 3.3, 3.4, 3.5, 3.6, 3.7, and 3.8 describe descriptive statistics, correlation matrix, numerical test for testing normality, the goodness of fit for latent variables and variance inflation factor (VIF) values respectively.

Table 3.3 below shows the descriptive statistics of mean, Standard Deviation (SD), minimum, and maximum. Chapter 4 indicates that there are differences in variables between developed and developing countries. That being the case, the study undertakes empirically testing to see if such differences in variables explain economic development differences between developed and developing countries.

Table 3.3: Description Statistics Showing Developed, Developing and Sub-Saharan countries

(1)	(2)					(3)					(4)				
Variables	Developed Countries					Developing Countries					Sub-Saharan countries				
	N	Mean	SD	Min	Max	N	Mean	SD	Min	Max	N	Mean	SD	Min	Max
Traditional															
GDPPC	13	27046.21	9040.14	1590.00	51410.00	132	24763.	15951.07	170.00	51470.0	270	135.50	78.09	1.00	270.00
EMP	13	44.02	17.01	0.10	64.70	132	19.39	23.23	0.10	81.50	270	82.93	40.41	1.00	162.00
HDI	13	0.30	0.24	-0.22	1.04	132	0.94	1.36	-2.62	3.35	270	662.64	443.64	22.00	1480.0
IGS	13	52.91	35.63	0.10	117.60	132	48.18	32.07	0.10	114.70	270	-0.27	0.15	-0.85	-0.05
RKN	13	8.11	1.04	6.82	9.78	132	5.50	1.65	2.27	7.68	270	217.13	393.13	5.51	2224.8
TED	13	22.88	16.19	0.10	50.80	132	11.03	20.90	-52.92	96.23					
HCT											270	1.88	0.41	1.14	2.81
EGS	13	22.86	14.97	0.01	50.30	132	20.82	12.17	0.01	48.62	270	137.38	80.95	1.00	285.00
FDI	13	27.98	15.28	0.92	51.18	132	25.96	15.85	1.85	51.41					
AID											270	113.13	59.90	1.00	227.00
GCI	13	91.94	16.30	39.66	141.32	132	29.62	33.11	0.10	122.36	270	192.12	129.97	1.00	756.00
GRS	13	60.71	25.67	1.20	99.30	132	30.34	31.50	0.70	108.60	270	142.66	83.95	1.00	285.00
ETR	13	95.00	58.27	-17.37	263.73	132	83.46	113.46	-274.84	291.32	270	2.04	1.79	0.05	12.30
Institutional															
ROL	13	71.57	16.79	-19.94	89.52	132	27.81	19.76	-48.93	74.20	270	312.29	129.49	7.00	651.00
GEF	13	0.65	0.18	0.03	1.05	132	0.50	0.10	0.23	0.70	270	11.70	2.70	2.00	16.00
COC											270	0.23	0.12	0.04	0.49
Cultural															
HWK	13	4.42	0.31	3.66	5.94		4.08	0.46	2.46	5.83					
CPR	13	-0.24	0.08	-0.74	0.15		-0.09	0.13	-0.24	0.35	270	0.78	2.17	-1.40	10.10
SOC	13	-0.02	0.08	-0.27	0.35		-0.12	0.09	-0.45	0.02	270	0.10	0.90	-2.52	2.83
FER	13	1.17	0.08	1.02	1.34		1.52	0.14	0.88	1.74					
REG	13	-0.08	0.70	-2.04	1.22		-0.23	0.52	-1.47	0.75	270	3.88	0.57	2.93	12.07
SEC											270	-0.13	0.77	-0.86	3.12

Notes. Column (1) shows three categories of variables; traditional, institutional, and cultural. Columns (2), (3) and (4) indicate summary statistics N (observations), mean, SD (standard deviation), minimum and maximum for developed, developing, and Sub-Saharan countries respectively.

³⁷ For countries engaged, see Tables 4.4 and 5.3 respectively.

The correlation matrix in Table 3.4 below indicates correlations of variables. The correlations highlighted in green indicate readings from 0.46 and above. Some of the correlations in green are very high. That necessitates further testing to ensure the model does not suffer from problems of multicollinearity. VIF testing has therefore been undertaken.

Table 3.4: Correlation Matrix of Variables in chapters 4 and 5

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Traditional	OLS1(combined) Model in chapter 4																	
1	GDPPC	1																	
2	EMP	0.08	1																
3	HDI	-0.12	-0.17	1															
4	IGS	-0.25	0.31	0.15	1														
5	RKN	0.11	0.33	-0.67	-0.12	1													
6	TED	0.09	0.01	-0.05	-0.02	0.09	1												
7	EGS	0.05	0.27	0.00	0.60	-0.15	-0.02	1											
8	FDI	0.12	0.12	-0.05	0.05	0.16	-0.06	0.09	1										
9	GCI	0.28	0.38	-0.33	-0.04	0.71	0.25	-0.02	0.14	1									
10	GRS	0.28	0.48	-0.15	0.16	0.27	0.12	0.38	0.14	0.40	1								
11	ETR	0.20	-0.12	-0.37	-0.36	0.40	0.05	-0.29	0.06	0.27	0.00	1							
12	Institutional																		
12	ROL	0.15	0.43	-0.23	-0.00	0.66	0.22	-0.01	0.05	0.74	0.39	0.16	1						
13	GEF	0.17	0.36	-0.11	-0.02	0.32	-0.02	0.11	0.05	0.26	0.39	0.12	0.41	1					
14	Cultural WVS																		
14	HWK	-0.07	0.20	0.32	0.19	0.00	0.07	0.14	0.02	0.28	0.19	-0.22	0.29	0.17	1				
15	CPR	0.12	-0.32	-0.32	-0.17	-0.16	-0.13	-0.05	0.01	-0.43	-0.23	0.12	-0.51	-0.38	-0.54	1			
16	SOC	-0.04	0.22	0.22	0.12	0.18	0.15	0.06	-0.06	0.33	0.17	-0.10	0.38	0.26	0.66	-0.60	1		
17	FER	-0.04	-0.42	0.18	-0.13	-0.65	-0.30	-0.02	-0.08	-0.76	-0.39	-0.07	-0.71	-0.35	-0.38	0.54	-0.46	1	
18	REG	-0.12	0.03	0.36	0.10	-0.35	0.09	0.14	-0.08	0.03	-0.03	-0.12	0.09	0.15	0.28	-0.51	0.29	-0.03	1
		OLS2 (developed) in chapter 4																	
	Traditional	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	GDPPC	1																	
2	EMP	0.29	1																
3	HDI	-0.02	-0.32	1															
4	IGS	-0.07	0.30	0.07	1														
5	RKN	-0.05	-0.06	-0.04	-0.20	1													
6	TED	-0.14	-0.21	0.05	0.08	-0.46	1												
7	EGS	0.07	0.29	0.00	0.72	-0.39	0.06	1											
8	FDI	0.04	0.17	0.09	0.08	0.12	-0.17	0.04	1										
9	GCI	0.36	0.51	-0.25	0.22	-0.16	-0.04	0.25	0.02	1									
10	GRS	0.25	0.73	-0.25	0.49	-0.02	-0.27	0.47	0.21	0.44	1								
11	ETR	0.06	-0.24	0.08	-0.45	0.22	-0.26	-0.49	0.04	-0.41	-0.31	1							
12	Institutional																		
12	ROL	0.19	0.18	-0.39	-0.08	0.24	-0.09	-0.03	-0.05	0.19	0.11	-0.08	1						
13	GEF	0.09	0.33	-0.25	-0.04	0.21	-0.37	0.00	0.01	-0.31	0.22	0.08	0.17	1					
14	Cultural																		
14	HWK	0.10	0.01	0.08	0.11	-0.10	0.02	0.17	0.00	0.12	0.05	-0.13	-0.03	-0.06	1				
15	CPR	0.11	-0.13	0.40	0.15	-0.20	0.19	0.09	0.06	-0.03	-0.08	-0.11	-0.26	-0.24	0.12	1			
16	SOC	-0.07	-0.07	0.04	-0.04	0.13	-0.11	-0.04	-0.13	-0.16	-0.09	0.13	-0.01	0.12	0.45	-0.12	1		
17	FER	0.03	-0.03	0.19	-0.37	-0.40	0.20	-0.26	0.06	-0.18	-0.27	0.22	-0.12	0.09	-0.04	0.03	0.09	1	
18	REG	-0.01	-0.01	-0.28	-0.07	-0.66	0.14	0.19	-0.12	-0.20	-0.03	0.10	-0.03	0.09	-0.11	-0.23	-0.02	0.39	1
		OLS3 (developing) model in chapter 4																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	GDPPC	1																	
2	EMP	-0.06	1																
3	HDI	-0.11	0.02	1															
4	IGS	-0.39	0.35	0.27	1														
5	RKN	0.11	-0.02	-0.79	-0.26	1													
6	TED	0.15	-0.15	0.05	-0.14	-0.03	1												

7	EGS	0.04	0.27	0.05	0.42	-0.22	-0.15	1											
8	FDI	0.16	0.05	-0.05	0.01	0.17	-0.03	0.14	1										
9	GCI	0.33	-0.24	-0.13	-0.37	0.56	0.05	-0.35	0.20	1									
10	GRS	0.29	0.07	0.03	-0.16	-0.11	0.11	0.32	0.05	-0.07	1								
11	ETR	0.23	-0.16	-0.42	-0.37	0.58	0.15	-0.22	0.07	0.54	0.09	1							
Institutional																			
12	ROI	0.11	-0.03	0.07	-0.10	0.31	0.03	-0.19	0.05	0.45	0.02	0.29	1						
13	GEF	0.24	0.00	0.15	-0.08	-0.18	0.03	0.27	0.03	-0.07	0.29	0.15	0.07	1					
Cultural																			
14	HWK	-0.20	-0.02	0.62	0.23	-0.54	-0.10	0.08	-0.02	-0.10	-0.03	-0.31	-0.03	0.03	1				
15	CPR	0.24	0.01	-0.79	-0.38	0.59	-0.00	-0.07	0.07	0.02	0.11	0.30	-0.10	-0.17	-0.63	1			
16	SOC	-0.11	-0.05	0.59	0.24	-0.47	0.07	0.09	-0.08	-0.09	-0.09	-0.27	-0.01	-0.03	0.67	-0.61	1		
17	FER	0.09	0.06	-0.21	0.00	-0.11	-0.22	0.34	-0.11	-0.38	0.16	-0.10	-0.23	0.04	-0.12	0.16	-0.15	1	
18	REG	-0.24	-0.08	0.80	0.35	-0.64	-0.03	0.04	-0.05	-0.06	-0.18	-0.32	0.04	0.15	0.64	-0.88	0.62	-0.03	1
OLS1SSC Model in chapter 5																			
Traditional		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	GDPPC	1																	
2	EMP	0.04	1																
3	HDI	-0.18	0.01	1															
4	IGS	-0.11	0.16	0.01	1														
5	RKN	0.03	-0.27	0.08	0.25	1													
6	HCT	0.27	-0.26	-0.28	-0.16	0.26	1												
7	EGS	0.25	-0.34	-0.10	-0.47	0.10	0.46	1											
8	AID	-0.14	-0.02	0.08	0.12	0.13	-0.01	-0.01	1										
9	GCI	0.16	-0.30	0.03	-0.03	0.50	0.46	0.16	0.6	1									
10	GRS	0.04	-0.02	-0.06	0.20	0.07	0.02	-0.02	-0.05	0.10	1								
11	ETR	0.04	-0.15	0.07	-0.11	0.31	0.41	0.15	-0.06	0.59	0.04	1							
Institutional																			
12	ROI	0.01	-0.39	0.11	-0.21	-0.05	0.17	0.15	-0.06	0.23	0.07	0.27	1						
13	GEF	-0.12	-0.38	-0.03	-0.04	0.18	0.14	-0.08	-0.03	0.41	0.19	0.30	0.46	1					
14	COC	-0.27	0.06	0.10	0.18	-0.32	-0.23	-0.18	-0.00	-0.28	0.03	-0.20	0.27	0.04	1				
Cultural																			
15	CPR	0.07	0.07	-0.14	0.04	0.12	0.17	-0.06	-0.04	0.13	0.05	0.16	-0.13	-0.10	-0.38	1			
16	SOC	-0.05	0.08	0.12	-0.0	-0.18	-0.08	-0.11	-0.06	0.05	0.03	0.06	0.21	0.13	0.09	0.53	1		
17	REG	0.18	0.18	-0.10	-0.22	0.01	0.10	0.16	-0.03	-0.04	-0.14	0.00	-0.30	-0.22	-0.35	0.20	-0.05	1	
18	SEC	0.19	0.05	-0.12	-0.02	0.24	0.17	-0.02	-0.02	0.21	0.05	0.20	-0.18	-0.09	-0.53	0.87	0.32	0.24	1

Notes. Highlighted correlations are not of concern for chapters 4 and 5 because tests for VIF in Table 3.6 below show each variable less than 10. Also, the mean VIF for chapter 4 is 3.68 while chapter 5 is 2.73 far below the threshold of 10.

Furthermore, Table 3.5 reports the better fit for factorized variables in the cultural category. See more details in section 3.4.4 below. All the variables in Table 3.5 below indicate outstanding fitness because RMSEA is below the threshold of 0.05. Moreover, all these generated latent variables have CFI ranging from 0.500 to 1.000 which is a perfect representation of variables involved to create latent cultural Variables.

Table 3.5: Goodness of fit for cultural variables generated

	Generated cultural Latent Variable	Factorised Endogenous Variables	Root mean squared error of approximation (RMSEA)	Comparative fit index (CFI)
Generated from WVS				
1	FER	N/A	N/A	N/A
2	CPR	E023: How interested would say are in politics? A004: How important in life is politics? E026: Political action: joining in boycotts.	0.006***	0.961
3	SOC	E069_06 Confidence: The Police E069_07 Confidence: Parliament E069_08 Confidence: The Civil Services E069_11 Confidence: The national government E069_12 Confidence: The Political Parties E069_17 Confidence: Justice System	0.000***	0.514
4	REG	F50: Belief in God F53: Belief in hell F54: Belief in heaven F59: Belief in the devil	0.000***	0.700
Generated from AS				
1	SEC	Q9B: How often feared crime at home; Q10A: Had something stolen from the house; Q10B: Have been physically attacked	0.000***	1.000
2	CPR	Q30A: Contact a local government councilor; Q30B: Contact MP; Q30C: Contact official of a Government Agency; Q30D: Contact political party official	0.046**	0.993
3	SOC	Q59A: Trust president; Q59B: Trust parliament / national Assembly; Q59C: Trust national Electoral Commission Q59E: Trust elected local government council	0.000***	1.000
4	REG	NA	NA	N/A

Significant levels of RMSEA *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Notes. Generated latent variables from 1 to 2 apply to WVS in chapter 4 while from 3 to 7 apply to Afrobarometer Surveys in chapter 5.

Lastly, the data collected from WVS and AS are prone to missing values since data is collected every three or four years in selected countries. It leaves years in between as missing values. Therefore, interpolation and extrapolation techniques were used to fill the missing years. These techniques were applied to all cultural variables to fill up missing years. Of course, some economic variables missing data marginally filled by an interpolation technique. These techniques have been are one or the other, extensively used in literature (Dufur et al., 2013; Gennaioli et al., 2013; Kuznets, 1955; Malik, 2013). Further exploration of models for chapters 4 and 5 done by checking outliers as illustrated in Table 3.6 that shows no severe outliers that can influence the regression coefficients as previously explained below.

Table 3.6: Checking severe outliers³⁸ in the models

Chapter 4			
OLS1 (combined) model			
Mean = 1.3e-06	Standard deviation = 1.0e+04	(N= 264)	
Median = 1115	Pseudo standard deviation = 8461	(IQR= 1.1e+04)	
10 trim = 227.2			
	Inner fences	Low	High
		-2.3e+04	2.3e+04
	# mild outliers	7	6
	% mild outliers	2.65%	2.27%
	Outer fences	-4.0e+04	4.0e+04
	# severe outliers	0	0
	% severe outliers	0.00%	0.00%
OLS2 (developed) model			
Mean = 1.6e+04	Standard deviation = 2.4e+04	(N= 132)	
Median = 5381	Pseudo standard deviation = 2.8e+04	(IQR= 3.7e+04)	
10 trim = 1.4e+04			
	Inner fences	Low	High
		-5.7e+04	9.2e+04
	# mild outliers	0	0
	% mild outliers	0.00%	0.00%
	Outer fences	-1.1e+05	1.5e+05
	# severe outliers	0	0
	% severe outliers	0.00%	0.00%
OLS3 (developing) model			
Mean = 408.5	Standard deviation = 1.2e+04	(N= 132)	
Median = -149.8	Pseudo standard deviation = 1.1e+04	(IQR= 1.5e+04)	
10 trim = -169.1			
	Inner fences	Low	High
		-3.0e+04	2.9e+04
	# mild outliers	1	6
	% mild outliers	0.38%	2.27%
	Outer fences	-5.1e+04	5.0e+04
	# severe outliers	0	0
	% severe outliers	0.00%	0.00%
Chapter 5			
OLS1SSC model			
Mean = -3.3e-08	Standard deviation = 66.26	(N= 270)	
Median = 0.1082	Pseudo standard deviation = 67.87	(IQR= 91.55)	
10 trim = 0.7042			
	Inner fences	Low	High
		-182.7	183.5
	# mild outliers	0	0
	% mild outliers	0.00%	0.00%
	Outer fences	-320	320.9
	# severe outliers	0	0
	% severe outliers	0.00%	0.00%

Notes. All the models in chapter 4 and 5 have passed the test for severity much lower than 5%.

³⁸ A model with observations from 10 to 300 in real data with severe outliers of 5% should be rejected of normality.

3.4.4 Techniques used to reduce cultural variables

EFA and CFA techniques were used to reduce the number of cultural variables which are highly correlated (Abdi and Williams, 2010; Tipping and Bishop, 1999). Factor analysis is a systematic tool used to reduce the number of mostly correlated variables in the dataset with fewer uncorrelated variables (Kim and Mueller, 1978). Hence, EFA and CFA procedures were used to reduce interrelated variables captured from WVS and AS. This has helped to create indexed cultural variables (latent constructs) from variables that capture similar things by topic or sub-topics covered by the questionnaires used to gather data in each survey. For instance, Table 3.5 above shows variables generated and names of variables used to generate a latent variable in each case.

3.4.5 Variance inflation factor (VIF)

This test is used to find out if there is the presence of a multicollinearity problem among the variables used in the models. The presence of perfect relationships between independent variables in the regression model unstabilizes the coefficients and wildly inflates standard errors. The mean VIF for OLS1 (combined) OLS2 (developed) and OLS3 (developing) in chapter 4 are 2.87, 2.83, and 3.36 respectively in Table 3.7 below. Hence, there is no strict linearity among variables in the models because VIF in each variable is below 10. Also, Table 3.7 shows that there is no multicollinearity problem in SSC model for chapter 5 because mean VIF is 2.34 which is well below the threshold of 10 and each variable has VIF below 10. As a result, all variables in all the models are retained.

Table 3.7: VIF values for Variables in 4 different Models

Chapter 4									Chapter 5		
OLS1(Combined) model			OLS2 (Developed) model			OLS3 (Developing) model			OLS1SSC model		
Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF
RKN	9.40	0.106339	RKN	6.69	0.149459	RKN	9.15	0.109341	CPR	7.31	0.136855
FER	4.19	0.238865	REG	5.60	0.178486	HDI	8.80	0.113595	SEC	5.99	0.166839
GCI	4.12	0.242917	GCI	4.24	0.235856	REG	7.68	0.130201	SOC	2.35	0.424786
HDI	3.87	0.258319	EMP	3.42	0.292091	CPR	5.99	0.166973	GCI	2.32	0.430738
CPR	3.56	0.280672	GRS	3.19	0.313586	GCI	3.58	0.278981	EGS	1.99	0.501428
ROL	3.33	0.300169	EGS	3.14	0.318929	IGS	2.41	0.414674	COC	1.97	0.506430
REG	2.43	0.411792	IGS	2.85	0.350516	HWK	2.38	0.420060	RKN	1.97	0.508242
SOC	2.35	0.424825	GEF	2.58	0.387683	SOC	2.34	0.427093	HCT	1.94	0.515043
HWK	2.21	0.452741	FER	2.50	0.400364	EGS	2.16	0.463707	IGS	1.93	0.517251
EGS	2.16	0.463936	HDI	2.34	0.428055	ETR	2.08	0.479915	ROL	1.87	0.533978
IGS	2.00	0.500463	TED	2.25	0.443826	FER	1.99	0.502362	GEF	1.87	0.534859
GRS	1.85	0.540578	ETR	1.81	0.553522	ROL	1.69	0.591308	ETR	1.78	0.560610
EMP	1.74	0.574078	CPR	1.64	0.610035	GRS	1.57	0.638926	EMP	1.66	0.602167
GEF	1.65	0.604685	SOC	1.59	0.627032	GEF	1.52	0.656161	REG	1.36	0.733920
ETR	1.60	0.626531	HWK	1.56	0.640729	EMP	1.32	0.758795	HDI	1.30	0.768333
TED	1.25	0.799734	ROL	1.40	0.715676	TED	1.23	0.810986	GRS	1.15	0.871740
FDI	1.13	0.887060	FDI	1.25	0.799407	FDI	1.19	0.843695	AID	1.06	0.947489
Mean VIF	2.87		Mean VIF	2.83		Mean VIF	3.36		Mean VIF	2.34	

Notes. VIF measures the variance whereby each regression coefficient increased due to collinearity of variables.

3.5 MODEL ESTIMATION AND TESTS

The study adopted the mixed research design because it accommodates both OLS estimation technique and a multi-case study. The methods were chosen because they were appropriate to address the primary and specific research questions highlighted in section 3.3 above. Therefore, the data analysis techniques were well-thought-out to fit in with the research approach and collection of data as suggested by (Sharp et al., 2002). The OLS estimation technique makes it possible to identify variables in the model that positively or negatively impact economic development significantly in chapters 4 and 5. On the other hand, a multi-case study (further discussed in section 3.6 below) verifies the findings in chapters 4 and 5. It was done by presenting the evidence after analysis in a matrix of categories, displaying data in graphs and charts by using means across tabulations as suggested by (Huberman and Miles, 1984; Runkel, 2007). This type of study provides the quantitative or numeric explanations of trends, attitudes, and opinions by carefully studying and making an analysis of the sample of the population. For the analysis to be done appropriately and efficiently the right pieces of training were undertaken and the suitable software (Stata) used in the analysis.

3.5.1 Models in chapter 4

This study's investigation employed panel data on the sample of countries covering a period from 1994 to 2015. Model estimations used OLS other than Fixed Effects and Random Effects. After the Hausman test for fixed effects and random effects, in chapter 4 model the results showed that Fixed Effects was better than Random Effects, hence, elimination of Random Effects Model. In the same model, further test between OLS and Random effect determined by Breusch and Pagan Lagrangian multiplier (LM) test which also rejected random effects. Now the choice was between OLS and Fixed effects models. Fixed models assume that there is constant variance among countries in the sample of study (Kohler and Kreuter, 2005). However, the Breusch-Pagan / Cook-Weisberg test for heteroscedasticity reveals that there are differences of variances across countries in the sample of developed and developing countries, hence, the OLS model chosen as ideal for this study.

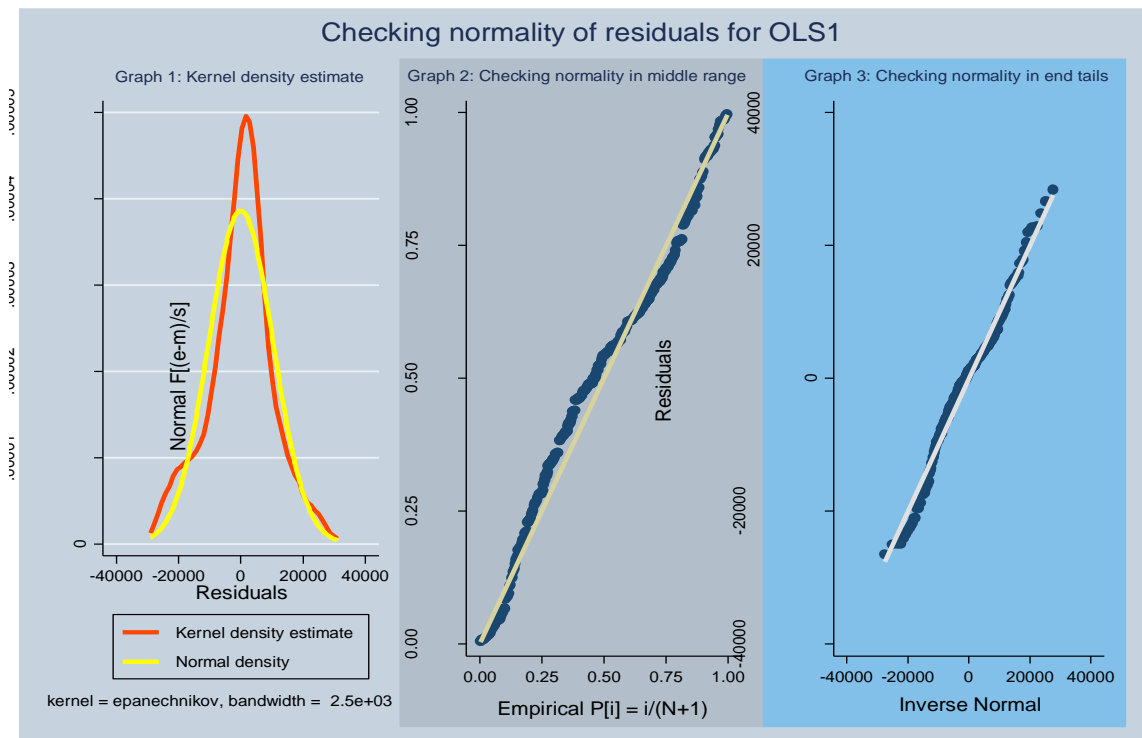
3.5.1.1 Breusch-Pagan / Cook-Weisberg test; Cameron & Trivedi's IM-test

This test was employed to check heteroscedasticity because its presence conflicts the assumption of OLS model that constant variance among entities is important for its credible prediction. OLS1 (combined), OLS2 (developed), and OLS3 (developing) models were tested for heteroscedasticity by using Stata commands such as `estat hettest` and `estat imtest`. The hypothesis for both tests is that residuals are homogeneous. The p-value threshold for the outcomes in both tests is 0.05. The p-

value scores for estat hettest and estat imtest are as follows: OLS1 = 0.3971 and 0.0001; OLS2 = 0.9088 and 0.4591; OLS3 = 0.1613 and 0.4591 respectively. Hence, the hypothesis that the residuals are homogeneous is accepted in OLS2 (developed) and OLS3 (developing) models while OLS1 (combined) has heteroscedasticity. Even though heteroscedasticity to some extent was reported to be present in the models in this section above, the extent of the effect on OLS models is relatively small as indicated by **estat hettest** and **estat imtest** tests. The OLS models in Table 3.7 above shows models passed the VIF test. The models were further subjected to tests that check normality of the residuals by using **kdensity** command. Figures 3.3, 3.4, and 3.5 below show that all the three models have passed the normality tests. These figures for each model are created by first running each OLS regression and then using **predict** command to generate residuals. After that, **kdensity** command with an option of normal was used to create normal density overlaid on the plot. Then, **pnorm** command for residuals was used to check non-normality in the middle range of data. Furthermore, **qnorm** command was used to check non-normality near tail ends. All these three commands are illustrated in the figures below.

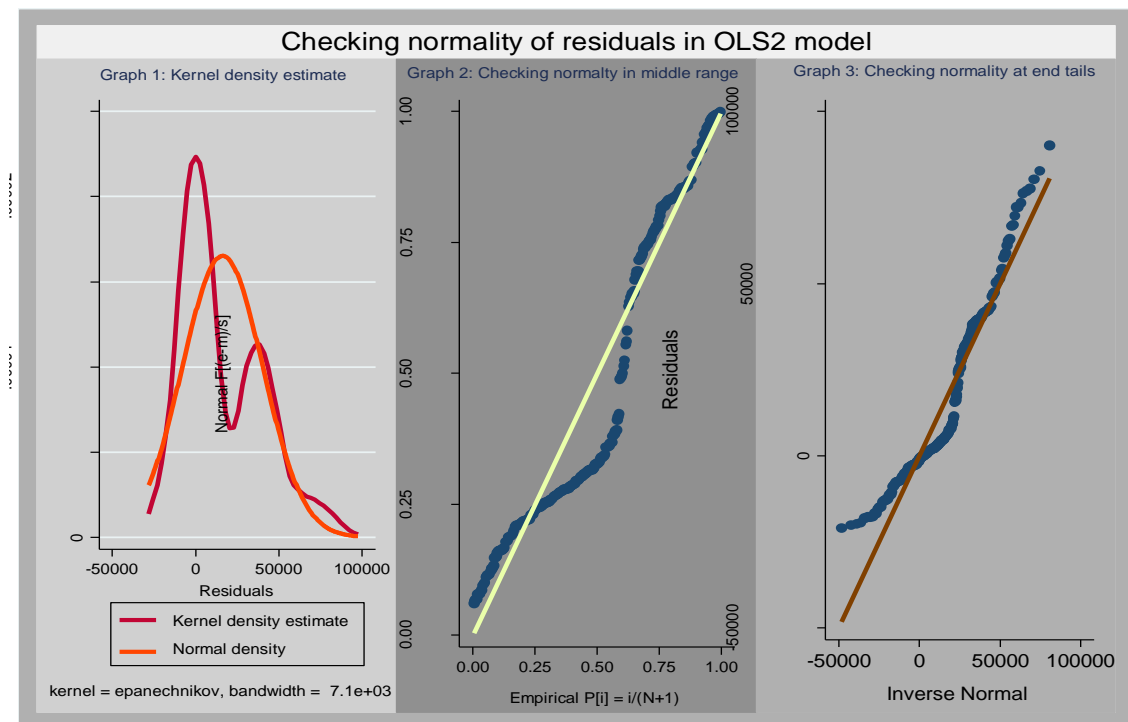
Despite, the pleasing outcomes from the figures below, there are slight violations of normality in the middle range of data for OLS2 (developed) and near the tail ends in OLS2 (developed) and OLS3 (developing) models. To sort out these small failures of heteroscedasticity, normality, and outliers **IVOLS** regression technique was used in OLS2 (developed) and OLS3 (developing) models as shown in Table 4.3 in chapter 4. This table shows that coefficients of OLS2(developed); OLS3 (developing), and IVOLS2; IVOLS3 models respectively are almost the same though slight differences noted in standard errors which do not have any effect on the **p-values and t statistics**. Therefore, the OLS technique used for estimation in this study produces trustworthy outcomes.

Figure 3.3: OLS1 (combined) model normality distribution



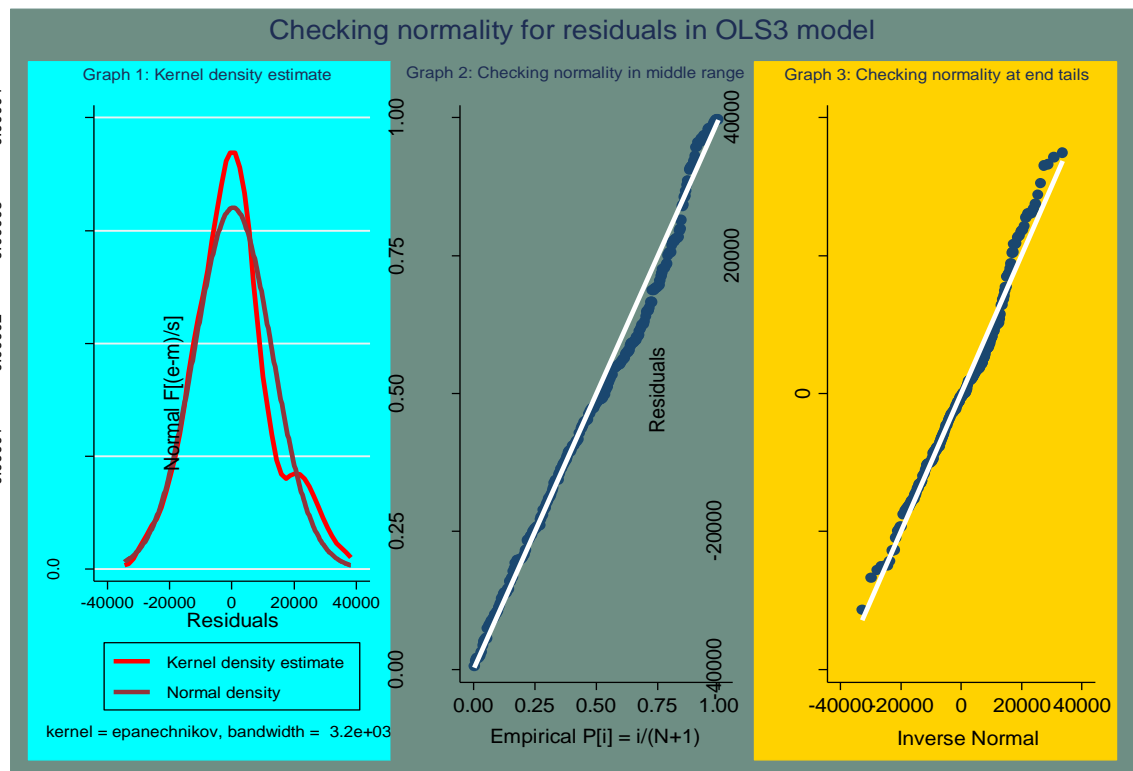
Notes. Graph 1 checks the normality of OLS1 (combined) model data while graph 2 and 3 checks normality in the middle range and end tails respectively.

Figure 3.4: OLS2 (developed) model normality distribution



Notes. Graph 1 checks the normality of OLS2 (developed) model data while graph 2 and 3 checks normality in the middle range and end tails respectively.

Figure 3.5: OLS3 (developing) model normality distribution



Notes. Graph 1 checks the normality of OLS3 (developing) model data while graph 2 and 3 checks normality in the middle range and end tails respectively.

3.5.1.2 Specification of models OLS2 (developed) and OLS3 (developing)

Linktest command in Stata is used to detect any misspecification of the model. It is achieved by checking if **_hatsq** is less than < 0.05 in which case the model is misspecified. On the other hand, if **_hatsq** is > 0.05 , then the model is specified. The misspecification of the model happens when one or more relevant variable(s) is/are omitted in the model. Alternatively, when one or more irrelevant variable(s) is/are included in the model. Linktest command creates two variables namely **_hat** and the **_hatsq** after running the model regression. The **_hat** variable is regarded as a variable of prediction while **_hatsq** a variable of squared prediction. The main aim of this test is to verify if the model is properly specified and doesn't need any more additional independent variables by chance. Hence, it is expected that **_hat** should be significant while **_hatsq** insignificant. The outcome of this test for OLS2 (developed): **_hat** = 0.087 and **_hatsq** = 0.863 and the outcome for OLS3 (developing): **_hat** = 0.013 and **_hatsq** = 0.761. Both models are correctly specified since scores for p-values of **_hatsq** are higher than the threshold of 0.05 as indicated in Table 3.8 below.

Table 3.8. Checking specification error by using the linktest technique

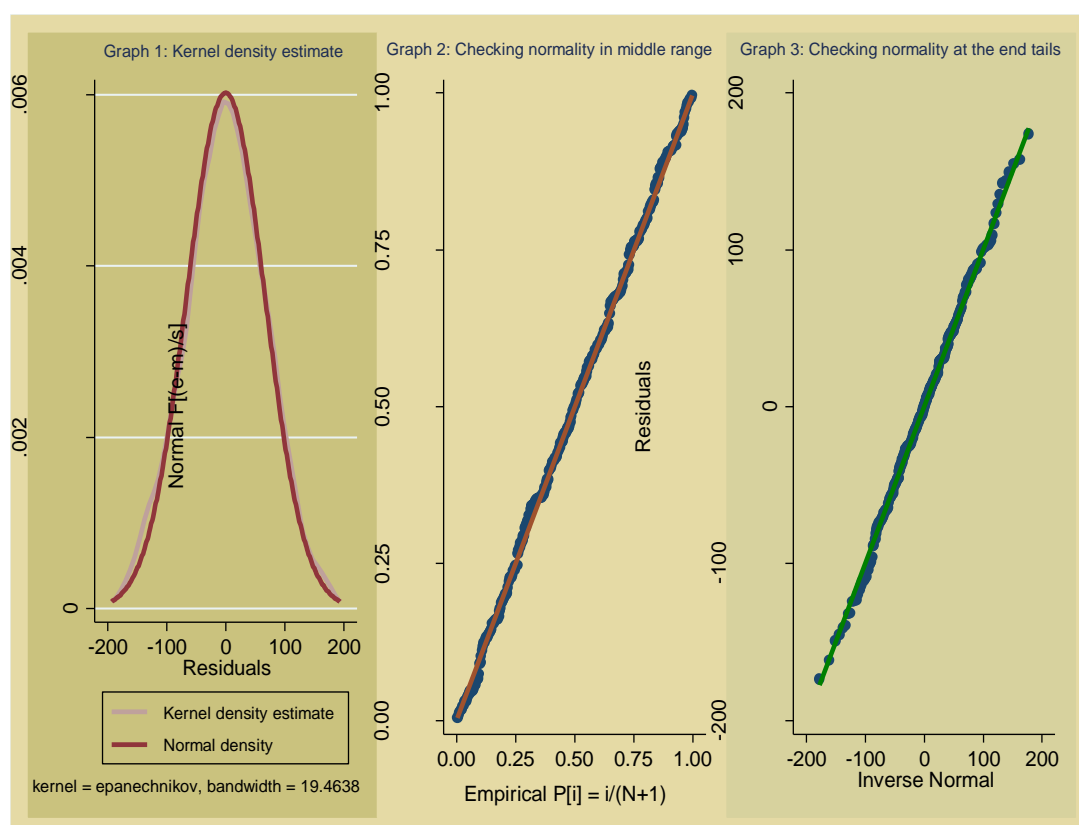
(1)	(2)	(3)	(4)	(5)	(6)	
GDP per Capita	Coefficient	Std. Err.	t-test	P-value	[95% Confidence Interval]	
	OLS2 (developed) Model					
_hat	1.109727	.6441492	1.72	0.087	-.1647378	2.384192
_hatsq	-0.00000220	.0000127	-0.17	0.863	-.0000274	.000023
_cons	-1288.823	8029.287	-0.16	0.873	-17174.96	14597.32
	OLS3 (developing) Model					
_hat	.8948358	.3559388	2.51	0.013	.1906022	1.599069
_hatsq	0.00000215	00000704	0.30	0.761	-.0000118	.0000161
_cons	1014.927	4089.916	0.25	0.804	-7077.072	9106.927

Notes. P-Value in yellow in both models in the row for **_hatsq** is above 0.05 significance level as an indication there are no omitted variables in the models.

3.5.2 Model OLS1SSC for chapter 5

This study's investigation employed panel data on the sample of countries covering a period from 2001 to 2015. Model estimations used pooled OLS other than Fixed Effects and Random Effects. After the Hausman test for fixed effects and random effects, the results showed that random effects were better than fixed effects. The **Hausman** test p-value was more significant than the 0.05 threshold. Hausman result was also confirmed by the **testparm** test that indicated that there were no fixed effects on the panel data. Hence, the fixed effects model eliminated. Now, the random-effects model was also tested by using the **xttest0** technique. This test result was insignificant, hence failed to reject the assumption of random effects model that variances across countries are zero. That being the case, the random effects model is of interest and will be used in the study to check the OLS model. However, OLS model can be prone to the serial correlation of the regressors and their errors. Hence, a **Lagrange-multiplier** test was used, and it was noted that there is the presence of correlation of the first-order autocorrelation. Therefore, to check the seriousness of correlation, this study adopted other models such as IVREG2 and GLS models as demonstrated in Table 5.3 in chapter 5. The results show that first order autocorrelations are not severe enough to raise concern since the results of Random, IVREG2, and GLS models are like the OLS model. Hence, OLS results are valid and justified and are chosen for the study.

Figure 3.6: Checking Normality of Residuals for OLS1SSC model



Notes. Graph 1 checks the normality of OLS1SSC model data while graph 2 and 3 checks normality in the middle range and end tails respectively.

3.5.2.1 Breusch-Pagan / Cook-Weisberg test

Heteroscedasticity was checked by using Stata commands such as **estat hettest** and **estat imtest** in Stata software. The p-values of the tests are 0.7101, and 0.0063 respectively. The p-value for hettest is more significant than 0.05 at 95% significance level. Hence, the null hypothesis that residuals are homogeneous is accepted. However, the test for imtest shows the presence of heteroscedasticity because its p-value is less than 0.05. Therefore, to check this problem OLS method in the estimation was checked by random, IVREG2 and GLS models as demonstrated in Table 5.3 chapter 5. Also, the assumption of normality tested as shown in Figure 3.6 above. The outcome seems to indicate normality of the OLS model.

3.5.2.2 Specification of the model

Linktest command was used to check if more variables were needed in the model. The result as in Table 3.9 below supports the null hypothesis that there is no specification error. It is shown by the p-value of **_hatsq** which is **0.260**. It is above 0.05 at 95% significance level. Hence, the null hypothesis that there are no omitted variables cannot be rejected. Therefore, the model for SSC in Table 3.9 below is correctly specified.

Table 3.9: Checking specification error in the OLS model

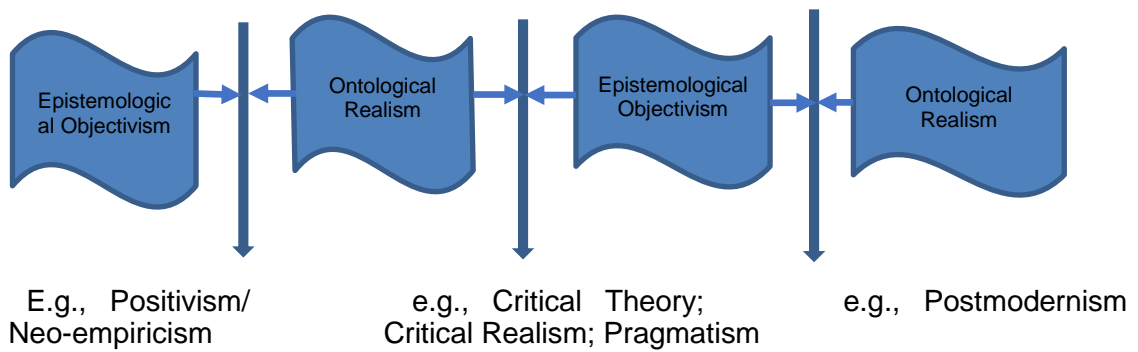
(1)	(2)	(3)	(4)	(5)	(6)	
GDP per Capita	Coefficient	Std. Err.	t-test	P-value	[95% Confidence Interval]	
_hat	.9303584	.427186	2.18	0.030	.0892768	1.77144
_hatsq	.0021014	.0018628	1.13	0.260	-.0015663	.0057692
_cons	34.88656	33.89272	1.03	0.304	-31.84443	101.6175

Notes. No omission of variables in OLS model

3.6 MULTI-CASE STUDY: BOTSWANA AND MALAWI

Figure 3.8 below demonstrates the summary of the processes and procedures previously discussed above. These processes and procedures have implemented through graphic sequential mixed methods design. As previously explained in section 3.3.3 above complementary strategy connects the results from quantitative chapters 4 and 5 to chapter 6 which is a multi-case study. Even though this multi-case study engages only two countries of Botswana and Malawi, they were sampled purposively as recommended by (Guarte, 2006). This qualitative approach engages a more extensive range of variables than quantitative approaches demonstrated in chapters 4 and 5. The approach provides a rich in-depth and cross-cases comparison investigation that is needed to explore the findings in chapters 4 and 5 (Walsham, 1995). The in-depth investigation relies on multiple sources of evidence as suggested by (Yin, 1994, p. 13). Hence, this multi-case study compliments secondary data analysis by seeking to understand how individual variables, circumstances, institutions, and environment interact with each other in specific national settings to produce measured effects (Darke et al., 1998, p. 277; Popper, 2014). Therefore, the mixed methods design in this thesis combines opposite positivist and interpretive orientations to enhance the quality and validity of the findings as noted by (Gable, 1994, p. 112). That being the case the philosophical position that seems ideal is Positivism/Neo-empiricism as demonstrated in Figure 3.7 below. All in all, the case study chapter seeks to drill down below the macro data to try to put some of the findings from the other two analytical chapters into context and to explain apparent anomalies. It therefore strengthens and compliments the secondary data analysis.

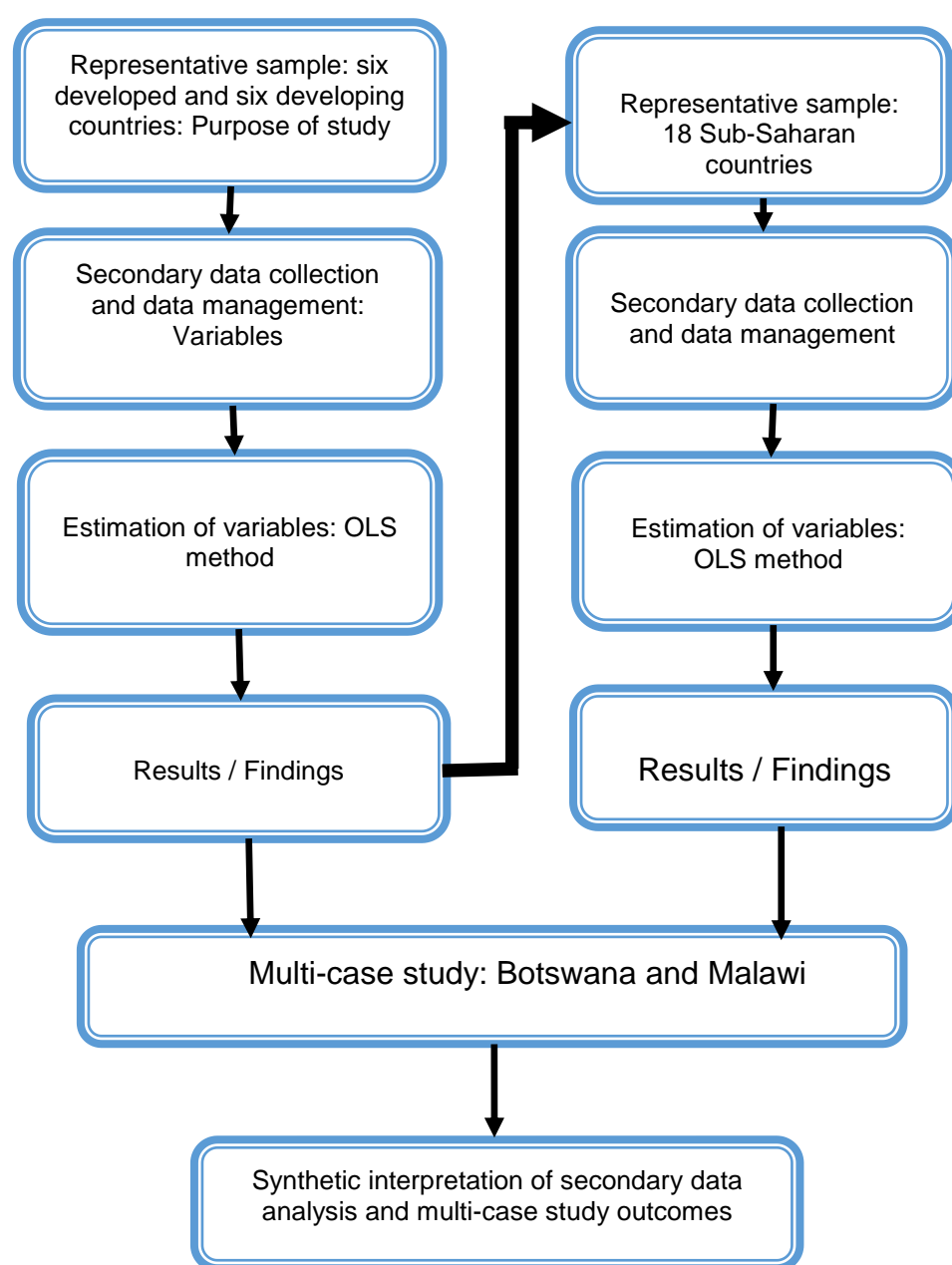
Figure 3.7: Epistemological and ontological assumptions



Source: Gill, Johnson, and Clark (2010)

Therefore, the results of the multi-case study using a qualitative approach confirms or verifies the results of quantitative chapters as noted by (Greene et al., 1989). The sources of data for the cultural category in this third phase are AS, Malawi National Surveys, Botswana National Surveys, and other sources of variables in traditional and institutional categories are demonstrated in Table 3.2 above. In this phase, qualitative data not transformed into quantitative data. Instead, the findings based are on qualitative methods of analysis in line with the qualitative paradigm as expressed by (Corbin and Strauss, 2008). In other words, according to Kane and Trochim (2007), the data collected through surveys (primary or secondary) are represented quantitatively by methods. However, this quantitative information rests upon qualitative judgment (Corbin and Strauss, 2008; Trochim and Donnelly, 2001). It suggests that quantitative and qualitative information is intertwined, hence, making it possible for them to be mixed in the research design. Subsequently, the main aim for this complementary design is to follow-up the findings in chapter 5 focussing mainly on how the cultural category performed by using statistical analysis techniques. This follow-up uses different qualitative analysis techniques that capture all the participants in the surveys other than reducing to means as applied in chapters 4 and 5. Therefore, quantitative and qualitative approaches in this study build on each other such as using estimation techniques in chapters 4 and 5 and interpreting output results and generalizing the findings to context by qualitative knowledge (Coll and Chapman, 2000; Reichardt and Cook, 1979).

Figure 3.8. Explanatory sequential mixed methods design



Notes. Processes and procedures are systematically implemented to meet the purpose of the thesis.

3.7 SECONDARY DATA SOURCES

It is generally accepted that secondary data sources are widely used in empirical economic research (Cowton, 1998; Atkinson and Brandolini, 2001). However, some secondary data sources might have exaggerated data or might have inconsistency in data information on some aspects of interest for empirical research. Nonetheless, the shortfalls highlighted above were dealt with by looking at the credentials of the researchers, the reputation of the organizations, the methodologies employed in the

collection of data and how the ethics were deliberated in their collection of data. For instance, the data of the variables employed in the thesis were taken from reputable international, national accounts such as (Summers and Heston, 1991). The above data source has been extensively used in the literature. Also, other data of variables came from reputable international agencies like the World Bank, and United Nations who collect data consistently over time. These international agencies engage larger samples and collect data that contain substantial breadth (Johnston, 2017). Capitalizing on the availability of trustworthy data sources this study collected data on crucial topics from different sources and merged them by using Stata software.

The study engages cross-sectional and longitudinal data of countries. The cross-sectional and longitudinal investigation was used to explore variables in different countries over the same period and over a long time. Hence, data collected for variables were taken from more than one country at a particular time so that comparison can be made to uncover patterns of association or differences as observed by (Bryman and Bell, 2011; Sekaran and Bougie, 2013). For example, in this study 12 countries were selected in chapter 4; 18 countries in chapter 5, and two countries in chapter 6. The variables included in the models illustrated in the equations (2) and (3) in section 3.4 above are measurements of the desired elements taken at a particular time over an extended period such as GDP per capita for each country. On the other hand, data collected through surveys were also used. Survey data is equally important because primary or secondary data was collected from a sample of the population (countries) so that results can be generalized as suggested by (Fowler, 2009). This type of data provides multiple observations which can be used to compare and contrast the differences in economic development across countries (Baum, 2006; Tonkiss, 1998). As a result, it helps to identify trends, differences, relationships, and these are compared among countries. The data sources in all the three categories are demonstrated in Table 3.2 above. It is generally acknowledged in the literature that data sources collected objectively such as the sources of traditional and institutional categories variables are trustworthy and valid other than those collected subjectively (Glaeser et al., 2004). Hence, the next paragraph will further discuss the validity of data sources for mainly cultural category variables collected from WVS and Afrobarometer Surveys.

3.7.1 World Values Surveys (WVS) and Afrobarometer Surveys (AS)

The thesis defines culture as accumulated knowledge due to both individual and society experiences and discoveries concerning ecological conditions culminating in values, rules, beliefs and social norms as claimed by (Fernandez, 2009; Nunn, 2012; Sternberg, 2004). In summary, culture is limited to functional and constituent senses playing a part as universal aspects of people's behavior, in most cases authenticated

in their activities and belief systems. For this reason, the concept of culture seems to have concomitant values embedded in traditional economic and institutional variables claimed to be the engine of economic growth in countries as explained in chapter 2 sections 2.2 and 2.4 respectively. Therefore, this study assumes that the methodology bias in capturing traditional and institutional variables fails to observe the differences between de jure and de facto experiences. For this reason, cultural variables will be obtained from WVS and Afrobarometer Surveys capturing subjective understandings of the participants. These surveys are similar to national census whereby a representative sample of the population is formed from participants of different ages, different employment status, different levels of education, and income levels while living in different parts of the country (Cohen et al., 2011).

3.7.1.1 World Values Survey as data sources

The data from WVS are periodically collected with almost identical questionnaires at each particular time which Hakim, (1982) referred to as surveys collected at regular intervals. WVS is an international network with competent international researchers dedicated to studying changes in cultural values and their impact on political and social life. The network has been extensively used academically across social sciences disciplines³⁹. Furthermore, WVS conducts surveys through face to face interviews or phone interviews, and the sampling is representative of all people from age 18 to 85 years living within private households in each country, regardless of their nationality, citizenship or language. The minimum sample size in most of the countries is 1200, and they use full probability or a combination of probability and stratified. They engage the principal investigator⁴⁰ in each country who is responsible for conducting the surveys in respective countries following the fixed rules and procedure adhering to ethics requirements. The WVS network has accomplished six waves of surveys from 1981 to 2012. They are however presently conducting the seventh wave. Their use of a standardized questionnaire to measure changing values concerning religion, gender roles, work motivations, democracy, good governance, social capital, political participation, tolerance of other groups, environmental protection, and subjective well-being seems ideal for this study as highlighted above. Also, the network ensures internal consistency checks which are made between the sampling design and the outcome and rigorous data cleaning procedures are followed before any data from any country is archived on their official database. Despite the network's

³⁹ www.worldvaluessurvey.org/WVSContents.jsp

⁴⁰ social scientists working in academic institutions

capturing surveys from participants from rich and developing countries, the inconsistency of data collection in mainly Sub-Saharan countries seems to be the primary challenge in monitoring the value changes and subjective thinking in the countries. Hence, to fill this gap, the study engaged Afrobarometer Surveys that are conducted consistently in Sub-Saharan countries.

3.7.1.2 Afrobarometer Surveys as data sources

Afrobarometer is a pan-African research network that conducts public attitude surveys on democracy, governance, economic conditions, and related issues in more than 35 countries in Africa. The network started in 1999 with a few countries, but more countries joined the network as time progressed. Moreover, the network's core role is to capture the ebb and flow of African thinking on critical issues such as constitutional changes, political participation, governance, and official corruption. Hence, data collected and analyzed denotes the thinking of ordinary citizens regarding pertaining social-economic and political issues. Presently, Afrobarometer surveys are the world's leading research venture on issues that affect Africans.

Furthermore, the network employs a robust sample⁴¹. Designs that ensure that every person from the age of 18 and over has the probability of being selected for an interview. The sample sizes for each country vary with the population size; the countries with lower population numbers have at least 1200 participants while those with higher populations have 2400 participants. Also, the network follows strict ethical procedures that ensure data collected is reliable and accurate and portrays the thinking of the Africans.

3.7.2 Advantages of Secondary data sources

This type of data provides multiple observations which can be used to compare and contrast the differences in growth say for example economic development among countries. Moreover, it helps identify trends, differences, and relationships among countries and making comparisons possible. This nature of the study is costly, but the cost was eliminated for the reason that secondary data is free to the public. Hence, the collection of data from data sources in Table 3.2 above reduced time for data collection. The time saved was used to do other tasks for the study. Secondary data also give liberty to choose the up to date quality data from data sources with the distinguished history, as a result producing credible results (Saunders et al., 2012).

3.7.3 Limitations of data sources

The data sources indicated in Table 3.2 above show the periods covered mainly for the cultural category fall in the range of 10 to 21 years. However, economic

⁴¹ <http://afrobarometer.org/surveys-and-methods/sampling-principles>

development of the countries takes a longer time of about 100 years to be thoroughly monitored. Therefore, this type of data is limited in its ability to explain economic development differences among countries over an extended period. Despite this limitation, the patterns of differences and similarities of economic growth are identified and compared between developed and developing countries as demonstrated in chapters 4 and 5. This is vital to provide explanations as to whether cultural values hinder or promote economic growth or productivity. It also helps to detect and describe barriers to human capability in dealing with contextual challenges.

However, secondary data sources are prone to databases not being completed, inaccurate or not updated which is pointed out in the literature (Gray, 2009). Despite this limitation, the study handled the collection of data by looking at different databases providing the same type of data. The other limitation encountered during the investigation is the absence of data. That happened mostly to survey data where data is collected periodically such as every three years. It leaves gaps in the years' data was not collected, hence reducing the number of years to be engaged in the study. However, missing data in this study were dealt with by using the recommended method of imputation as recommended by (Saunders et al., 2006). Imputation is the procedure used for assigning missing data in variables and this study employed hot decking procedure in filling missing values. The filling of missing values by this method engaged highly correlated variable to fill missing data of the other correlated variable in a balanced dataset which is widely used in literature (Streiner, 2002; 2013).

3.7.4 Procedures used for data processing

The secondary data sources provided both raw data and unprocessed data in large datasets, making it not ideal for the study. Hence, identification of data sources and collection of data was not the end in itself, but the beginning of data mining. For instance, all the data of variables collected were in the form of large datasets. Hence, these datasets need to be processed so that they could be used in this study. However, for the processes of data to be appropriately and expertly handled, training had been undertaken to gain the skills and techniques needed for the study. Some of the pieces of training done are Statistics software Training; Quantitative methods course; Statistics for Researchers; Attended some seminars taken place at the University of Central Lancashire; support from supervision team; Stata software advanced training; self-training through academic YouTube sources; and using University of Central Lancashire library sources. The acquired skills enabled the successful use of the procedures to process the data. The procedures used to process data are as follows: data cleaning, data integration, data reduction, and data transformation.

3.7.4.1 Data cleaning

This process involved screening the datasets for inconsistencies, missing values, and extraneous variables. The process helped improve the quality of data by removing inconsistencies and extraneous variables. Concerning missing values in datasets, the correction was either dropping variables or observations with many missing values. Alternatively, using Stata software to impute missing values on the variables within each dataset. Also, missing data in some variables were filled by using the recommended method of imputation such as hot decking as recommended by (Saunders et al., 2006). Stata software provides excellent procedures of data imputation, and hot decking is among the procedures executed by Stata software. This procedure uses a highly correlated variable to fill missing data of the other correlated variable in a balanced dataset (Streiner, 2002; 2013). Data cleaning also involved checking double data entry, duplicates and summary statistics of variables as suggested by (Mitchell, 2010). Data cleaning helped to form reliable datasets by merging variables from different sources together through the process called data integration explained more in the next section.

3.7.4.2 Data integration

This process helped to merge variables from different sources to fulfill a single purpose. For example, there were some great datasets but with missing values on the key variables. Hence, missing values were sourced from other data sources covering the same period and countries. Data integration also covered the triangulation of variables from different data sources. For example, variables from more than one source were merged (Denzin, 1978:291). This process happened in three phases. Firstly, all the variables in Table 3.2 above from different sources except variables from AS were merged to form chapter 4 dataset. Secondly, all the variables in the same table from different sources except WVS were merged to form chapter 5 dataset. In Stata software processes called appending or merging were used to combine variables from different data sources as highlighted above. These processes were executed as explained by (Mitchell, 2010; StataCorp). After the merging of variables to datasets in chapters 4 and 5, further scrutiny of variables was conducted through a process called data reduction which is explained more in the next section.

3.7.4.3 Data reduction

This process was mainly undertaken to survey sources of data. For instance, variables collected through questionnaires have a scale of options. The scale options differ with the intended meaning given to participants to choose from the options offered. Hence, in both chapters 4 and 5, these survey variables were reduced to the

means by using Stata software. The command used in Stata to reduce these options to means is collapse command. The variables were reduced to means representing the people in that country who opted for that choice. Hence, the means of each variable in each year represented each country for each year the survey was done. Hence, data reduction for survey variables was essential to execute statistical analysis in chapters 4 and 5. Furthermore, EFA and CFA techniques were used mainly to reduce cultural variables from the surveys as suggested by (Maylor and Blackmon, 2005). These procedures were used to create one variable concept from more than two variables captured by two or more questions under the same topic. Therefore, data reduction is an essential process because the variables selected are organized in datasets so that Stata software can be used to execute the analysis and manipulation of other forms of variables which are recommended in the literature for credible results during analysis of data (Blaikie, 2000). This process associated with data transformation which is explained more in the next section.

3.7.4.4 Data transformation

There have been changes to some variables' scales, mainly datasets from AS and WVS. Some scales used were not preferred concerning efficiency issues and credible results. This data transformation was done to use statistical analysis of qualitative data collected through WVS and AS which is endorsed by (Maylor and Blackmon, 2005). This technique reduces observation of participants' views or opinions to numbers. Moreover, these numbers represent views and can be statistically analyzed (P. 352). These processes applied to variables from surveys in chapters 4 and 5. However, chapter 6 did not need such data transformation because the variables from the survey did not need to be analyzed statistically. Hence, all participants in the surveys were used as the source of ideas that can represent real-world phenomenon as claimed by (Bryman and Bell, 2003; 2015). This process changed the form of data from qualitative to quantitative for statistical analysis purposes demonstrated in chapter 4 and 5 chapters.

3.8 Conclusion

The quantitative and qualitative nature of approaches fit well with the knowledge developed in attempting to answer the research questions in this study. The nature of reality embraced in the study has been shaped by literature review in chapter 2. This standpoint influenced the formulation of questions which helped to identify the variables incorporated in the conceptual model in section 3.4.1 above. The variables in the model are tested for their relationships, association and how they fit in to answer the research questions. It is accomplished by using statistical analysis techniques such as OLS technique that fits well with the quantitative approach mainly pinpointing chapters 4 and

5 in the thesis. The qualitative approach is utilized in chapter 6 and substantiates the findings of the quantitative approach in chapters 4 and 5 as demonstrated in section 3.6 above. As can be seen from the presentation of this chapter, both quantitative and qualitative approaches incorporate philosophies, theories, and research designs that work well to accomplish the purpose of the thesis as recommended (Freeman et al., 2007). Therefore, the mixed methods design this study engaged is well fitted to explain income disparities among countries. So, the findings are valid and trustworthy because the study has followed rigorous methods and techniques for finding knowledge during the entire investigation. The empirical results in chapters 4 and 5 were complementary to each other while those of chapter 6 confirmed the findings in chapters 4 and 5 by using a different approach from chapters 4 and 5.

CHAPTER 4. INCOME DISPARITIES BETWEEN DEVELOPED AND DEVELOPING COUNTRIES

4.1 INTRODUCTION

The widening gap between income levels between developed and developing countries as discussed in chapter 1 exposes the inconsistency in economic theory in explaining economic growth disparities among countries. For instance, the catching-up effect, and multiplier effect fail to explain the income disparities among countries. Hence, the rationale for the thesis is to examine the impact of cultural factors on economic growth in both developed and developing countries. The assumption of the neo-classical theory that countries with lower capitals grow faster than countries with more copious amounts of accumulated capital seems not to work as advocated by (Solow, 1956; Swan, 1956). It appears developed countries have a proportionately more significant positive impact upon growth in than developing nations. It appears against the idea that everyone is expected to catch up, even in countries with much lower capitals. Hence, the catching-up assumption of neo-classical theory seems not to work for all countries in the same way and at the same time. Why? Part of the reason might be that the theory is failing to include variables such as institutional and cultural variables. These variables seem to be excluded, and as a result, the residuals seem very high. That being the case, two sub-samples of developing and developed countries have been chosen six for each, and further divided each of these into fast and slow growth economies.

4.2 CLASSIFICATION OF DEVELOPED AND DEVELOPING COUNTRIES

This chapter allows the study to estimate panel regressions effectively and analyze many multivariate time-series models namely: OLS1 for combined developed and developing countries, OLS2 for developed and OLS3 for developing countries. In the first place, the question is “how did the classification of countries come about?” Table 4.1 below summaries classification systems used by selected international organizations. These organizations used different development thresholds to classify countries into different categories. For example, the World Bank (WB) use gross national product (GNP) per capita levels to classify countries as follows: Low income: \$1,025 or less; Lower middle-income: \$1,026 to \$4,035; Upper-middle-income: \$4,036 to \$12,475; High income: \$12,476 or more. Consequently, the WB classify low income and lower-middle-income countries as developing countries. While upper middle income and high income as developed countries (World Bank, 2018).

Similarly, the United Nations Development Programme’s (UNDP) classifies countries according to their performance in human development index (HDI) measuring achievement of countries in longevity, education and income indices. The UNDP classifies developed countries as those with scores from 76 to 100 (top quartile) of the HDI distribution; developing countries as those with HDI percentiles 51-75, 26-50, and the bottom quartile HDI distribution (Malik, 2013). The rationale of the classifications of countries by these international organizations might reflect the view of Pearson (1969) to redirect resources from more prosperous nations to poorer nations to enhance their development status. The classification system that seems ideal for this study is by World Economic Situation and Prospects (WESP) and United Nations Development Programme’s (UNDP) because both organizations use similar categories of countries. Furthermore, WESP (2014, pp. 145-146) provides a list of countries according to their group classification as illustrated in Table 4.2 below. The classification of countries according to their level of development is a contentious issue. Nonetheless, it is widely used in literature labeling countries as developed and developing (Aderonke, 2018; Nielsen, 2011; Harris et al., 2009).

Table 4.1: Classification Systems in Selected International Organizations

	World Bank (WB)	World Economic Situation and Prospects (WESP)	United Nations Development Programme's (UNDP)	International Monetary Fund (IMF)
Type of Classification Systems used to label Countries	1) High-income countries 2) Low- and middle-income countries	1) Developed countries 2) Economies in transition 3) Developing countries	1) Developed countries 2) Developing countries	1) Advanced Countries 2) Emerging and developing countries

Notes. The most commonly used classification in this table is developed and developing label.

Table 4.2. Names of countries in each classification system

Classification system	Names of countries
Developed countries	Austria Belgium Denmark Finland France Germany Greece Ireland Italy Luxembourg Netherlands Portugal Spain Sweden the United Kingdom Bulgaria Croatia the Cyprus Czech Republic Estonia Hungary Latvia Lithuania Malta Poland Romania Slovakia Slovenia Iceland Norway Switzerland Australia Canada Japan New Zealand the United States Canada Japan France Germany Italy the United Kingdom the United States
Transition countries	Albania Bosnia and Herzegovina Montenegro Serbia The former Yugoslav Republic of Macedonia Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Republic of Moldova Russian Federation Tajikistan Turkmenistan Ukraine Uzbekistan
Developing countries (Africa)	Angola Botswana Lesotho Malawi Mauritius Mozambique Namibia South Africa Zambia Zimbabwe Algeria Egypt Libya Mauritania Morocco Sudan Tunisia Cameroon Central African Republic Chad Congo Equatorial Guinea Gabon Sao Tome and Principe Burundi Comoros Democratic Republic of Congo Djibouti Eritrea Ethiopia Kenya Madagascar Rwanda Somalia Uganda Tanzania Benin Burkina Faso Cabo Verde Côte d'Ivoire Gambia Ghana Guinea Guinea-Bissau Liberia Mali Niger Nigeria Senegal Sierra Leone Togo

Notes. Countries in the developing category are limited to the African continent

The classification of countries in Table 4.2 above largely depends on the economic achievement or output of the country's economy. This type of reasoning could help to explain the causes of different economic performances among countries (Dion, 1998). Hence, the study adopts the technique of different cases sampling which relies on the maximum variance between two categories explained by different conditions in each category (Seawright and Gerring, 2008, p. 300). The technique is like the method introduced by Mill (1872) on the agreement and differences. Equally, the technique is also called heterogeneity sampling (Patton 2002, p. 234). This study believes that this approach to estimate models based on the developed and developing classification of countries has several advantages concerning providing policy implications compared to grouping all countries into one case. The differences in income outputs may reflect internal and external group capacities in their formulation of development policies. The

internal differences of developed and developing countries may broadly refer to respective group's political system, economic system, income level, and economic growth rate, while appropriate external structures include main trading partners, geopolitical relationships, and degree of influence in international economic institutions. All in all, the differences between the groups are captured in the variables illustrated in Table 3.2 in chapter 3.

Having explained in the above paragraph about the choice of developed and developing countries categories by diverse case sampling, the countries in each category were randomly chosen as indicated in Table 4.3 below. The random sampling of these countries to some extent relied on the availability of data of World Values Surveys (WVS) in developing countries. Hence, only six countries in each category were chosen to give an equal number of observations so that the estimation of parameters is not biased (Wald, 1948, p. 220).

Table 4.3: Classification of countries in OLS2 and OLS3 models

OLS2 (developed)	OLS3 (developing)
Australia	Egypt
Germany	Ghana
Japan	Nigeria
Poland	Rwanda
Sweden	South Africa
Switzerland	Zimbabwe

Notes. There are six countries in each group as indicated in the table above

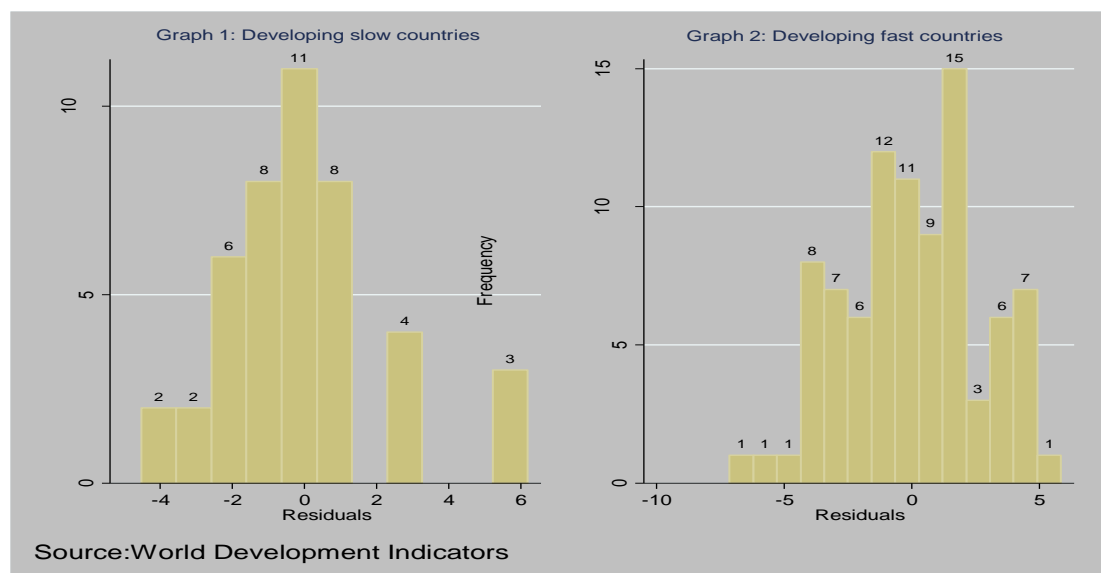
4.2.1 Fast and slow growth developed and developed countries

In this sub-section, countries in OLS2 (developed) and OLS3 (developing) models are further grouped into fast and slow developed and developing by using a dependent variable GDP per capita growth (GDPPCG) rates as a proxy for average economic growth rates over the period from 1994 to 2015. Why? According to Dion (1998, p. 127), a range of a dependent variable can be explained by the conditions of the phenomenon taking place in the context. Hence, using the method of agreement, the selection of cases (fast or slow) can be based on the value of a dependent variable (Mill, 1868 cited in Dion, 1998). For this reason, the mean of GDPPCG became a cutting point whether a country belongs to slow or fast growth in both models (OLS2 developed) and OLS3 (developing) respectively. That seems to imply that any value of GDPPCG from 0 to mean of GDPPCG in OLS2 (developed) was categorized SlowOLS2 (developed) while any value above was classified FastOLS2 (developed).

Similarly, any value from 0 to mean of GDPPCG in OLS3 (developing) model was labeled SlowOLS3 (developing) while those above mean were categorized FastOLS3 (developing). Graph 1 in Figure 4.1 below shows that there are more

negative residual observations in the SlowOLS3 (developing) model than positive residuals after running a regression with GDPPCG as output. Also, in graph 2 in the same figure shows more positive residuals than negative hence, FastOLS3 (developing) model.

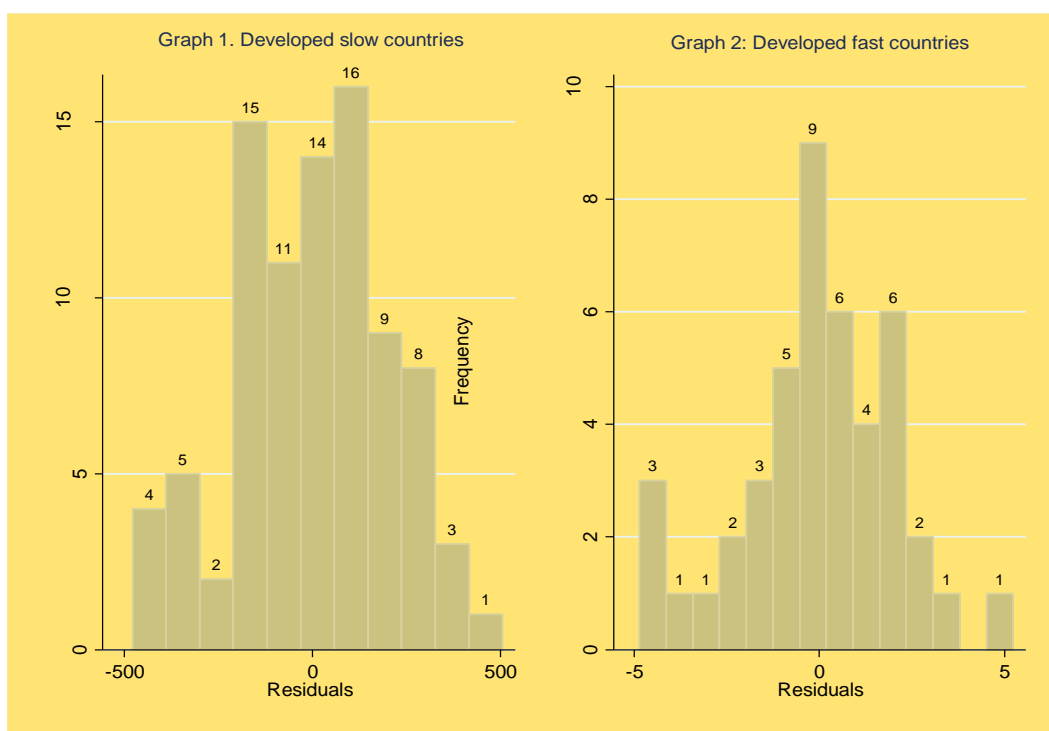
Figure 4.1: Frequencies of residuals in Slow and Fast (developing) models



Notes. Residuals below 0 are more in the SlowOLS3 model while residuals above 0 are more in the FastOLS3 model (developing).

Figure 4.1 above seems to suggest that the cutting point for a dependent variable GDPCG is justified. Furthermore, graphs 1 and 2 in Figure 4.2 below indicates residual frequencies for SlowOLS2 and FastOLS2 (developed) models. Graph 1 has slightly more negative values than positive; the same pattern seems to occur in graph 2 in Figure 4.2 below.

Figure 4.2: Residual frequencies in slow and fast developed model



Notes. Graphs 1 and 2 show slim margins between negative and positive residuals.

Figure 4.2 above shows slim differences between SlowOLS2 and FastOLS2 developed models. For example, graph 1 shows about four more negative residuals than positive while graph 2 positive residuals are more just by two residuals. Nonetheless, the rationale for grouping the OLS2 (developed) and OLS3 (developing) models into SlowOLS2, FastOLS2 (developed), SlowOLS3 and FastOLS3 (developing) sub-groups is to find out if the performance of the variables in respective categories varies with the status of economic growth in the countries. It would help to identify which category of variables seem to provide robust support for economic growth over time in each sub-group. This is in line with the research done by Grier and Tullock (1989, p. 259) who noted that coefficient values of variables vary widely across groups of countries in explaining economic growth. Hence, it would be possible to identify which category of the variables robustly support economic growth in the sub-group of countries similar to Asiaei and Jusoh (2015, p. 685) who identified organizational culture as a critical factor for sustainable average economic growth in Iran in the time the country was plagued with international sanctions from 2000 to 2007 period. Hence, a further grouping of countries in OLS2 (developed) and OLS3 (developing) models in this section attempts to identify the engines of growth which appears to be very elusive in economics empirical work as claimed by (Eberhardt and Teal, 2011, p. 143). All in all, the different sets of critical parameters in different contexts provide various insights

into the sources of economic growths. Table 4.4 below shows the names of countries in each category.

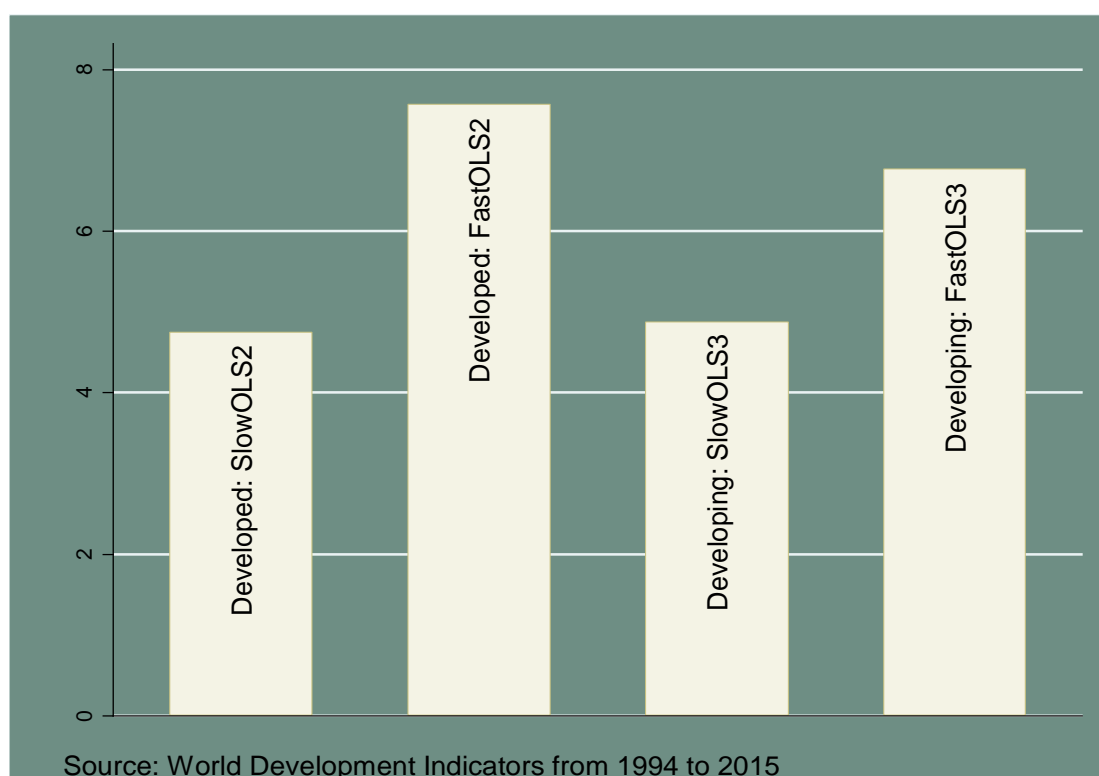
Table 4.4: Countries in each sub-group of OLS2 and OLS3 models

OLS2 (developed)		OLS3 (developing)	
SlowOLS2	FastOLS2	SlowOLS3	FastOLS3
Australia	Poland	South Africa	Egypt
Germany	Sweden	Zimbabwe	Ghana
Japan			Nigeria
Switzerland			Rwanda

Notes. There are four countries in each of the SlowOLS2 and FastOLS3 models while only two countries in each model of FastOLS2 and SlowOLS3.

Having looked at Figures 4.1 and 4.2 above, Figure 4.3 below seems to confirm the discussions above whereby the figure shows differences in GDPPCG rates of growth over the period from 1994 to 2015.

Figure 4.3: Average economic growths by category from 1994 to 2015



Notes. Slow and Fast OLS2 (developed) models and Slow and Fast (developing models)

As discussed earlier in the methodology chapter, the analysis contained within this chapter incorporates three categories of variables. Therefore, this investigation explores and possibly identify the reasons why there are income disparities among countries. In order to Justify the assertion, this chapter is organized as follows: Section 4.1 above introduces the chapter, section 4.2 discusses the classification of countries,

section 4.3 presents the results, section 4.4 discusses the findings, and section 4.5 concludes the chapter. The variables incorporated in the model of the study as shown in section 3.4.1 are described and defined in Table 3.2. The results are presented in the next section.

4.3 RESULTS

The empirical results presented in this section examines whether variables in three categories could explain the income disparity phenomenon between developed and developing countries. To achieve this, estimation models used the production function of the form:

$$Y = AK^{\alpha} (Lh)^{1-\alpha} \dots\dots\dots(1)$$

Y = income output, K = physical capital, L = unskilled labor, H = human capital, A denoted TFP interpreted as social infrastructure, social capability, social capital, technology progress, ignorance, see more details in chapter 2 section 2.6 and sub-section 3.4.1 in chapter 3. The findings are reported in categories starting with the most influential category in the next section.

4.3.1 Empirical findings

Table 4.5 below has a combined model for developed and developing countries model (OLS1), developed countries model (OLS2) and developing countries model OLS3. The table also has instrumental variables in IVOLS2 and IVOLS3 models to check the estimation of OLS2 (developed) and OLS3 (developing) models respectively. Hence, the reporting of the results will be primarily limited to specifications of OLS2 (developed) and OLS3 (developing) respectively. Furthermore, Tables 4.5 and 4.6 below indicate the performances of the variables in all three categories. Also, the reporting will include the results in Tables 4.7 and 4.8 for the SlowOLS2, FastOLS2 (developed models), SlowOLS3 and FastOLS3 (developing models) respectively. That being the case, the presentation of results in the next section is reported starting with the most influential variables in each category.

Table 4.5: Performance of variables in all OLS models

Dependent Variable: GDPPC					
(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	OLS1(combined)	OLS2(developed)	OLS3(developing)	IVOLS2	IVOLS3
TRADITIONAL					
EMP	21.6674 (36.5567)	-31.5332 (71.2258)	55.2907 (51.9671)	-31.5332 (85.9404)	55.2907 (39.0155)
HDI	1,170.0248 (1,257.9599)	12,754.2678*** (4,120.7651)	-52.4242 (2,286.1243)	12,754.2678*** (4,862.1309)	-52.4242 (2,855.7733)
IGS	-103.6191*** (27.4444)	-60.0711* (31.0437)	-24.6343 (50.9231)	-60.0711** (28.2063)	-24.6343 (50.7867)
RKN	-2,861.2804*** (1,064.2002)	2,825.5653* (1,634.0502)	-6,708.6458*** (1,924.6530)	2,825.5653 (2,287.1213)	-6,708.6458** (2,622.2274)
TED	30.8184 (37.6024)	115.0273* (60.7020)	94.1277* (55.8773)	115.0273 (84.8634)	94.1277 (80.0576)
EGS	141.3374** (70.7833)	67.7849 (77.4382)	15.5560 (126.8774)	67.7849 (51.0727)	15.5560 (172.6833)
FDI	55.5997 (44.8970)	-0.4164 (47.9283)	118.4918 (72.2347)	-0.4164 (51.1947)	118.4918 (82.0366)
GCI	213.8793*** (32.8598)	435.6208*** (82.7270)	388.3148*** (60.1349)	435.6208*** (75.4156)	388.3148*** (80.4098)
GRS	50.6011* (27.5891)	54.6718 (45.5558)	5.0161 (41.7750)	54.6718 (70.2907)	5.0161 (36.7151)
ETR	8.7606 (9.2225)	51.7521*** (15.1054)	-10.2082 (13.3803)	51.7521** (20.0712)	-10.2082 (13.6424)
INSTITUTIONAL					
ROL	47.4993 (42.0894)	70.0452 (46.1130)	55.3817 (69.2054)	70.0452** (32.6090)	55.3817 (45.4583)
GEF	16,931.7849*** (5,284.0133)	20,850.8544*** (5,974.6306)	43,099.0682*** (12,784.4075)	20,850.8544** (8,773.0522)	43,099.0682** (16,866.2484)
CULTURAL					
HWK	-3,669.9039 (2,299.7430)	3,423.1078 (2,621.2594)	-4,948.2980 (3,556.8242)	3,423.1078* (2,015.4908)	-4,948.2980 (4,147.3466)
CPR	27,325.9826*** (9,421.8856)	34,925.9275*** (10,756.9504)	25,778.8945 (19,421.1291)	34,925.9275*** (7,227.7330)	25,778.8945** (12,393.3707)
SOC	15,139.4281 (10,588.8777)	-7,198.5094 (10,986.7059)	42,357.9035** (17,967.9883)	-7,198.5094 (6,856.3476)	42,357.9035* (23,189.9060)
FER	14,937.2468** (6,478.4769)	-9,845.8697 (12,966.0879)	36,017.1198*** (10,855.4400)	-9,845.8697 (14,679.8692)	36,017.1198*** (12,505.7419)
REG	-3,940.6927** (1,650.4169)	5,633.0886** (2,202.0574)	-16,202.9915*** (5,615.3124)	5,633.0886** (2,447.0554)	-16,202.9915** (6,404.3376)
Constant	16,324.7076 (18,408.3651)	-61,167.0803** (29,946.3837)	-7,534.7589 (29,734.5326)	-61,167.0803* (36,226.5604)	-7,534.7589 (33,595.2391)
OBS	264	132	132	132	132
R2	0.3679	0.4018	0.5044	0.4018	0.5044
R2_A	0.324	0.313	0.431	0.313	0.431
DF_R	246	114	114	114	114
DF_M	17	17	17	17	17
F	8.422	4.504	6.826	7.953	15.26
p	0.0000	0.0000	0.0000	0.0000	0.0000

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

Notes. The Standard errors are in parentheses. Column (1) shows independent variables in 3 categories. Columns (5) and (6) shows Instrumental Variables' models (IV) to check the performance of OLS2 and OLS3 respectively.

4.3.2 Significance of OLS1 OLS2 and OLS3 models

Table 4.5 above shows the significance of the models in terms of p-value and R-Squared Adjusted as follows: OLS1(combined) = 0.0000, 0.32; OLS2 (developed)= 0.0000, 0.31; OLS3 (developing) = 0.000, 0.43 respectively. The results in the three models appear to suggest that the importance of variables varies with the development level of the countries. The approach of estimating the contribution of variables to GDPPC according to the development level of the countries meets the purpose of this study. The purpose is to examine if cultural variables explain economic differences among countries. Also, Table 4.6 below demonstrates the relative importance of variables ranked in each model from 1 to 17. 1 being the most important while 17 the least important regarding contribution to GDPPC in each model. Tables 4.5 and 4.6 have been color-coded as follows: green color shows variables that contribute to GDPPC significantly and positively while the yellow color indicates the least important

variables and significantly reduces GDPPC. Furthermore, Tables 4.7 and 4.8 below also show that variables perform differently in slow and fast developed and developing countries. The significance of the models in terms of p-value and R-Squared Adjusted are as follows: SlowOLS2 (developed) = 0.000, 0.74; FastOLS2 (developed) = 0.000, 0.48; SlowOLS3 (developing) = 0.000, 0.77; and FastOLS4 (developing) = 0.000, 0.40 respectively. The results in Tables 4.7 and 4.8 also appear to suggest that the differences in economic growths in both developed and developing countries affect the performance of variables. Therefore, the reporting of the results in Tables 4.5, 4.6, 4.7, and 4.8 in the next section will follow the performance of variables in their categories. Also, the confidence interval ranges of all variables are reported at 95% confidence interval levels.

Table 4.6: Relative importance of variables in OLS1, OLS2, and OLS3 models

Dependent Variable: GDPPC									
OLS1 (combined)				OLS2 (developed)			OLS3 (developing)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Rank	Independent Variables	standardized	Eta^ (%)	Independent Variables	standardized	Eta^ (%)	Independent Variables	Standardized	Eta^ (%)
1	GCI***	0.67	10.89	GCI***	0.79	14.55	GCI***	0.81	18.13
2	CPR***	0.28	2.16	REG**	0.44	3.43	FER***	0.31	4.79
3	FER**	0.24	1.37	GEF***	0.41	6.39	GEF***	0.27	4.94
4	GEF**	0.21	2.64	HDI***	0.34	5.03	SOC**	0.24	2.42
5	EGS**	0.15	1.02	ETR***	0.33	6.16	CPR	0.21	0.77
6	GRS	0.13	0.86	RKN*	0.32	1.57	TED*	0.12	1.23
7	SOC	0.11	0.53	CPR***	0.30	5.53	FDI	0.12	1.17
8	ROL	0.10	0.33	TED*	0.21	1.88	EMP	0.08	0.49
9	HDI	0.09	0.22	GRS	0.16	0.76	ROL	0.07	0.28
10	FDI	0.07	0.39	ROL	0.13	1.21	EGS	0.01	0.01
11	ETR	0.06	0.23	HWK	0.12	0.89	GRS	0.01	0.01
12	TED	0.05	0.17	EGS	0.11	0.40	HDI	-0.00	0.00
13	EMP	0.04	0.09	FDI	-0.00	0.00	IGS	-0.05	0.10
14	HWK	-0.12	0.65	EMP	-0.06	0.10	ETR	-0.07	0.25
15	REG**	-0.19	1.46	SOC	-0.06	0.23	HWK	-0.14	0.84
16	IGS***	-0.27	3.66	FER	-0.09	0.30	REG***	-0.53	3.62
17	RKN***	-0.42	1.86	IGS*	-0.24	1.96	RKN***	-0.70	5.28

Notes. The Table shows the impact of variables in OLS1, OLS2, and OLS3 models. Independent variables ranked in columns (1) according to standardized coefficients in columns (3, 6, & 9). Significance levels are shown as follows: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Effect size (Eta^ %) indicated in columns (4, 7, & 10) respectively.

4.3.3 Traditional category

This category has ten variables incorporated in each model as demonstrated in Tables 4.5 and 4.6 above. The variables have performed differently in each model as indicated in Table 4.5. For instance, RKN in OLS2 (developed) model significantly impacts GDPPC and is ranked 6th in Table 4.6 above. The confidence interval ranges from -411.48 to 6062.60 while its p-value is 0.086 less than 90% significance level threshold. In contrast, in OLS3 (developing) model, RKN significantly reduces GDPPC. So its p-value is 0.001 which is less than 90% significant level threshold while its confidence interval ranges from -10521.37 to -2895.92. Furthermore, the results in Tables 4.7 and 4.8 below indicate that RKN insignificantly reduces GDP per capita growth rate (GDPPCG) in the FastOLS2 (developed) model. On the other hand, in SlowOLS2 (developed) model insignificantly promotes GDPPCG. Therefore, RKN appears to impact GDPPCG differently in both slow and fast economic growth in developed countries. In contrast, RKN in FastOLS3 (developing) model insignificantly increases GDPPCG while in SlowOLS3 (developing) model RKN significantly reduces GDPPCG. Likewise, RKN seems to impact GDPPCG differently in slow and fast-growing developing countries. It gives the impression that RKN impact on GDPPCG does not only depend on economic growth status of the countries but also different factors affecting the economies of the countries.

The HDI in Table 4.5 in the OLS2 (developed) model has a p-value of 0.002 less than 90% significant level threshold. Its confidence interval ranges from 4591.06 to 20917.47 and its contribution to GDPPC is positive and significant. On the other hand, HDI in OLS3 (developing) model insignificantly reduces GDPPC. Its confidence interval ranges from -4581.22 to 4476.37 and its p-value is 0.982 more than 90% significance level threshold. Furthermore, Table 4.7 shows that HDI in FasOLS2 (developed) model insignificantly enhances GDPPCG while it significantly increases GDPPCG in SlowOLS2 (developed) model. In contrast, HDI insignificantly reduces GDPPCG in FastOLS3 (developing) while in SlowOLS3 (developing) insignificantly enhances GDPPCG. The next variable to be reported is GCI as illustrated in Table 4.5 above. Its confidence interval in OLS2 (developed) model ranges from 271.74 to 599.50. Also, its p-value is 0.000 which is less than 90% significance level threshold. Likewise, GCI in OLS3 (developing) model has a p-value of 0.000 less than 90% significant level threshold. Its confidence interval ranges from 269.19 to 507.44. The performance of GCI in both developed and developing countries is outstanding as also demonstrated in Table 4.6 above. GCI also contributes to GDPPCG significantly in SlowOLS2 (developed), SlowOLS3 (developing), and FastOLS3 (developing) while in FastOLS2 (developed) insignificantly reduces GDPPCG as demonstrated in Table 4.7 below.

Besides, the effect size of GCI in SlowOLS2 (developed) and SlowOLS3 (developing) is more substantial than in FastOLS2 (developed) and FastOLS3 (developing) as indicated in Table 4.7 below.

The next variable to be reported in the traditional category is ETR as demonstrated in Table 4.5 above. In OLS2 (developed) model, p-value for ETR is 0.001 which is less than 90% significance level threshold, and its confidence interval ranges from 21.83 to 81.68. On the other hand, ETR in OLS3 (developing) model has confidence interval ranges from -36.71 to 16.30 and its p-value is 0.447 which is more than 90% of significance level threshold. However, ETR in Table 4.7 in SlowOLS2 (developed) significantly increases GDPPCG while in FastOLS2 (developed) model insignificantly enhances GDPPCG. In contrast, ETR insignificantly reduces to GDPPCG in SlowOLS3 (developing) model while in FastOLS3 (developing) model insignificantly enhances GDPPCG. Furthermore, IGS variable significantly reduces GDPPC in OLS2 (developed) model, and its p-value is 0.055 which is less than 90% of significance level threshold. IGS confidence interval in OLS2 (developed) ranges from -121.57 to 1.43. Contrary, IGS in OLS3 (developing) model insignificantly reduces GDPPC. Its confidence interval ranges from -125.51 to 76.24 and its p-value is 0.629 which is more than 90% significance level threshold. On the other hand, IGS in FastOLS3 (developing) model significantly reduces GDPPCG while in SlowOLS3 (developing) model insignificantly reduces GDPPCG. In contrast, in both SlowOLS2 and FastOLS2 (developed) models IGS significantly reduces GDPPCG though the negative impact is higher in SlowOLS2 than in FastOLS2 (developed) models as shown in Table 4.7 below. The next variable to be reported is TED which in this chapter strictly represents tertiary education. The results in Table 4.5 above shows that TED's p-value in OLS2 (developed) model is 0.061 which is less than 90% significance level threshold, and its confidence interval ranges from -5.22 to 235.28. Similarly, TED in OLS3 (developing) model has a p-value of 0.095 which is less than 90% significance level threshold. Its confidence interval ranges from -16.56 to 204.82. Furthermore, TED in Table 4.7 in SlowOLS2 (developed) model significantly promotes GDPPCG while in FastOLS2 (developed) model insignificantly reduces GDPPCG. TED also insignificantly enhances GDPPCG in both SlowOLS3 and FastOLS3 (developing) models.

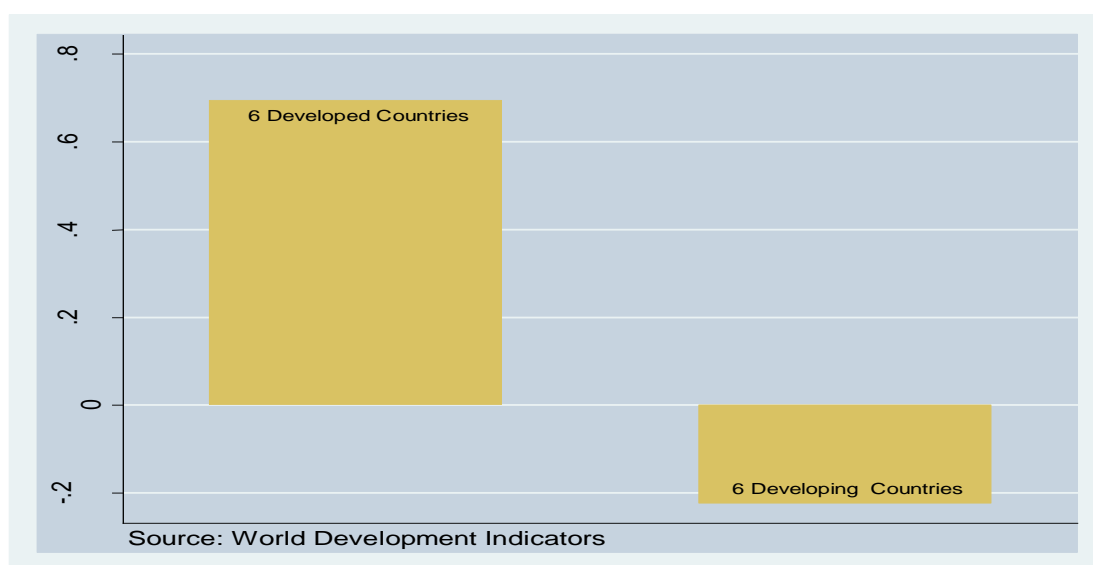
Of course, there are other variables in this category in Tables 4.5 and 4.6 above that contribute insignificantly to GDPPC in either OLS2 (developed) or OLS3 (developing) are not reported in this section. In the same vein, there are variables not reported in this section which insignificantly reduce GDPPC in both OLS2 (developed) and OLS3 (developing) models respectively. All in all, the findings in the traditional category indicate that variables' importance varies with the development level or the state of countries' economic growth of countries. That seems contrary to the neo-

classical theory that expects that the variables should perform in the same way in the countries. Therefore, the results in this section are in line with the rationale of the study of finding out which variables explain economic disparities between developed and developing countries. The next section will explore the performance of variables in the cultural category.

4.3.4 Cultural category

Tables 4.5 and 4.6 above work together regarding identifying variables that seem essential in this category in OLS2 (developed) and OLS3 (developing) models. Further explorations of variables are conducted in Tables 4.7 and 4.8 by grouping into slow and fast-growing countries. The first variable to be reported in this category is SOC. The confidence interval of SOC in OLS2 (developed) model ranges from -28963.09 to 14566.07 and its p-value 0.514 which is more than 90% significance level threshold. In contrast, SOC in OLS3 (developing) has a confidence interval range of 6763.46 to 77952.35 and its p-value is 0.020 which is less than 90% significance level threshold. The differences of the direction of the impact of SOC on GDPPC in OLS2 (developed) and OLS3 (developing) models could be due to differences in performances of formal and informal institutions, see section 4.4 for more details. Figure 4.4 below illustrates this by showing mean scores of the rule of law in 6 developed and six developing countries. The rule of law scores measures confidence in the police, judicial system and property security whereby developed countries have much higher scores than in developing countries.

Figure 4.4: The rule of law operation in developed and developing countries



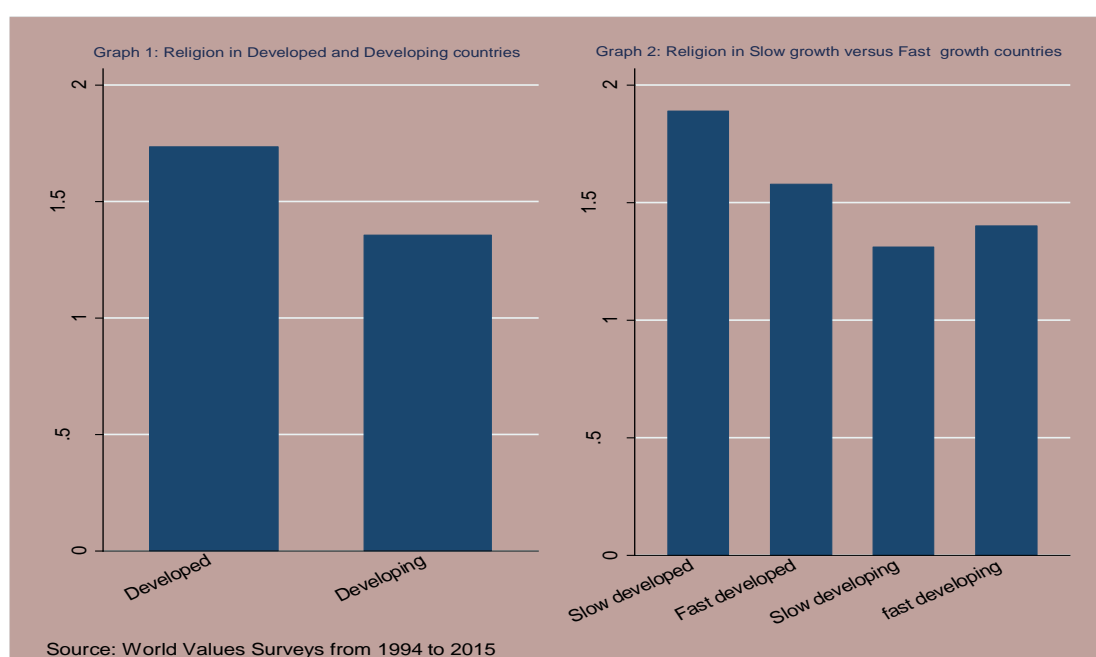
Notes. The index score for the rule of law for developing countries is from zero to almost -0.2 (the indication rule of law failure in operation).

Furthermore, Tables 4.7 and 4.8 below show that SOC insignificantly increases GDPPCG in SlowOLS2, FastOLS2, SlowOLS3, and FastOLS3 in developed and developing countries respectively. The outcome of this variable in Tables 4.7 and 4.8 below seems to indicate that the impact of SOC on GDPPCG in developed and developing countries do not vary with the status of economic growth in the countries. The second variable to be reported in this category is FER as indicated in Tables 4.5 above. In OLS2 (developed) model FER has a p-value of 0.449 which is more than 90% significance level threshold. Moreover, its confidence interval ranges from -35531.59 to 15839.85. Contrary, FER in OLS3 (developing) model has a p-value of 0.001 which is less than 90% significance level threshold. Its confidence interval ranges from 14512.58 to 57521.66. The impact of FER on GDPPC is about 16 times more in developing countries than in developed countries as demonstrated in Tables 4.6 above. Further estimation presented in Tables 4.7 and 4.8 below which show that FER in SlowOLS2 (developed) model significantly reduces GDPPCG. In contrast, in FastOLS2 (developed) model FER insignificantly enhances GDPPCG. On the other hand, FER insignificantly reduces GDPPCG in SlowOLS3 (developing) model while in FastOLS3 (developing) model significantly promotes GDPPCG. The literature indicates that FER is one of the excellent characteristics citizens are encouraged to have and these characteristics are embraced in a culture that is said to drive economic development (Tabellini, 2010; Carroll, 1979). The effect size of FER on GDPPC in OLS3 (developing) model in column (10) in Table 4.6 above is 4 times larger than human capital in the same model, while in OLS2 (developed) model in column (7) in same table human capital effect size on GDPPC is 6 times more effective than FER in the same model. Furthermore, the effect size of FER on GDPPCG is three times more in FastOLS3 (developing) than in SlowOLS3 (developing) models as illustrated in columns (10) and (13) in Table 4.8 below respectively. Hence, the exclusion of cultural variables such as FER in neo-classical theory does not reflect differences in explaining income disparities among countries. See more explanations in sub-section 4.4.4.1. Tables 4.5 and 4.6 disclose that CPR in OLS2 (developed) model has confidence interval range from 13616.49 to 56235.36 and its p-value is 0.002 less than 90% significant level threshold. Contrary, in OLS3 (developing) model CPR has a p-value of 0.187 more than 90% significance level threshold. Its confidence interval ranges from -12694.21 to 64252.0. CPR in OLS2 (developed) model has seven times more impact on GDPPC than in OLS3 (developing) model. Besides, Tables 4.7 and 4.8 show that CPR positively and insignificantly impacts GDPPCG in all the models.

Also, Table 4.5 above indicates that religion in OLS3 (developing) model significantly reduces GDPPC. The confidence interval ranges from -27326.88 to -5079.10 and its p-value is 0.005 less than the 90% threshold of significant level. On the

other hand, religion in OLS2 (developed) model significantly enhances GDPPC. Its confidence interval ranges from 1270.83 to 9995.35, and its p-value is 0.012 less than the 90% threshold of significance level. The performance of religion in OLS2 (developed) and OLS3 (developing) models seems to agree with graph 1 in Figure 4.5 below whereby religion is considered more important in developing countries than in developed countries. Also, religion in Table 4.7 below shows that religion is positively and significantly related to GDPPCG in SlowOLS2 (developed) model while in FastOLS2 (developed) model insignificantly enhances GDPPCG. That reflects the views of participants in graph 2 whereby more people regard religion as necessary in developing countries other than in developed countries.

Figure 4.5: Importance of religion in Developed and Developing Countries



Notes. The Views of participants about the region in developed and developing countries.

The findings in this category seem to indicate that more cultural variables significantly contribute to GDPPC in developing countries than in developed countries. Hence, exclusion of this category of variables in neo-classical theory underestimates their influence in the developing countries. Therefore, a universal approach to explain income disparities among countries does not reflect the real phenomena in countries. The developed and developing countries have been further grouped into fast and slow growing economies so that the performance of variables can be compared between the groups and help to explain the phenomena under study.

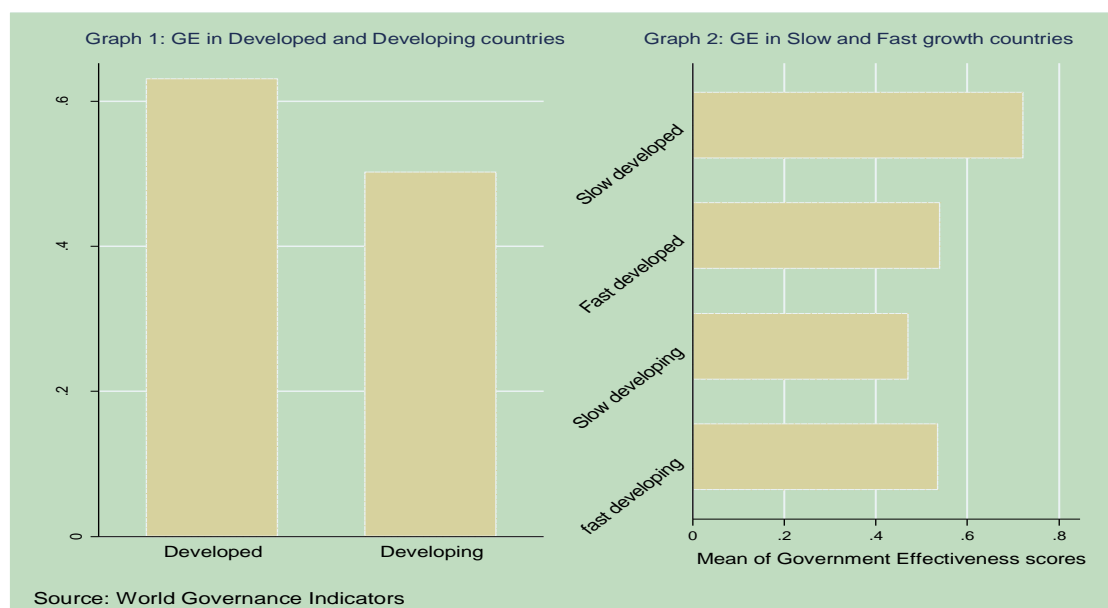
4.3.5 Institutional category

This category has only two variables incorporated in each model as demonstrated in Tables 4.5 and 4.6 above. ROL in this category insignificantly enhances GDPPC in both OLS2 (developed) and OLS3 (developing) models. The

confidence interval of ROL in OLS2 (developed) ranges from -21.30 to 161.39 and its p-value is 0.132 which is more than 90% significance level threshold. On the other hand, the confidence interval in OLS3 (developing) model ranges from -81.71 to 192.48 and its p-value is 0.425 more than 90% significance level threshold. Furthermore, ROL in Table 4.7 below in SlowOLS2 and FastOLS2 developed models insignificantly increases GDPPCG. Also, ROL in SlowOLS3 and FastOLS3 developing models in Table 4.7 below insignificantly enhances GDPPCG in SlowOLS3 (developing) model while in FastOLS3 (developing) model reduces GDPPCG insignificantly. Another variable in this category is GEF which significantly promotes GDPPC in both developed OLS2 (developed) and developing OLS3 (developing) models. The confidence interval of GEF in OLS2 (developed) model ranges from 9015.16 to 32686.55, and its p-value is 0.001 less than 90% significance threshold level.

Similarly, GEF significantly enhances GDPPC in developing the OLS3 model. It is a p-value of 0.001 which is less than 90% significance threshold level. So its confidence interval ranges from 17773.26 to 68424.88. Further exploration of GEF in Tables 4.7 and 4.8 below shows that GEF insignificantly reduces GDPPCG in both SlowOLS2 and FastOLS2 developed models. In contrast, GEF in SlowOLS3 (developing) model insignificantly reduces GDPPCG while in the FastOLS3 (developing) model it significantly enhances GDPPCG. It seems to agree with graph 1 in Figure 4.6 below which shows that developed countries have better scores of GEF than developing countries. However, GEF seems to have a more significant effect on GDPPC in developing countries than in developed countries. Graph 2 in Figure 4.6 below shows that better scores of GEF have a more significant impact on GDPPCG in fast developing countries than slow developing countries. That seems to suggest that good governance in developing countries could enhance more economic growth in the countries.

Figure 4.6: Comparison of GEF in developed and developing countries



Notes. Graph 1 compares GEF in developed and developing countries while graph 2 compares GEF in slow and fast growth developed and developing countries.

Tables 4.7 and 4.8 below shows specifications of each growing category representing slow and fast-growing developed countries, and slow and fast-growing developing countries.

Table 4.7: Variables' impact on GDPPCG in slow and fast models

Dependent Variable: GDPPCG				
(1)	(2)	(3)	(4)	(5)
VARIABLES	SlowOLS2(developed)	FastOLS2(develope	SlowOLS3(developing	FastOLS3(developin
TRADITIONAL				
EMP	-83.1958* (44.5216)	-1.6297 (274.1993)	44.2404 (74.2098)	17.3475 (64.7516)
HDI	4,856.7865* (2,708.7003)	20,141.6736 (17,604.8021)	928.8086 (4,046.2894)	-200.0575 (3,022.5750)
IGS	-38.0057** (15.2324)	-918.6457* (513.9697)	-20.3349 (136.6820)	-132.4087** (63.6500)
RKN	424.9992 (1,282.9056)	-20,207.2999 (18,639.4593)	-14,371.8404*** (4,035.6434)	1,465.9805 (2,844.8997)
TED	153.3164*** (47.5547)	-198.6576 (213.0979)	78.7634 (139.2800)	2.1775 (82.2012)
EGS	145.1785*** (34.5244)	1,948.1043 (1,265.2556)	47.1178 (459.8042)	269.8188* (159.7170)
FDI	27.1937 (25.7061)	9.2307 (129.2085)	156.3447 (108.9188)	229.7074*** (84.1399)
GCI	386.5430*** (62.6433)	-953.0549 (698.3904)	809.4581*** (100.6134)	529.0283*** (103.4651)
GRS	-42.0372* (24.5772)	293.8109 (176.3397)	-133.1721 (236.3337)	-19.7306 (43.7526)
ETR	17.3022* (8.9957)	68.5373 (83.3639)	-24.4395 (21.2803)	0.1193 (21.4487)
Institutional				
ROL	52.7316** (21.5499)	1,070.0784 (740.0850)	117.7781 (139.5295)	-53.6727 (81.2873)
GEF	-10,631.0161 (6,407.6993)	-9,909.0425 (37,945.1366)	-34,223.4581 (28,638.5211)	83,365.9339*** (19,053.6389)
Cultural				
HWK	2,263.6184 (1,450.6662)	-1,293.9915 (7,302.8137)	-5,381.9163 (7,823.7680)	-2,882.9284 (3,732.3455)
CPR	4,899.2744 (9,366.0488)	20,044.2847 (27,712.4403)	10,678.2652 (18,513.3506)	22,305.1125 (40,298.9713)
SOC	618.6294 (6,514.2249)	8,134.1116 (31,975.7167)	39,300.8523 (29,226.9506)	31,901.8140 (21,026.0176)
FER	-25,198.2311*** (6,337.0480)	43,462.7052 (66,113.5923)	-37,586.1247 (28,530.6626)	30,756.9813** (14,535.0117)
REG	5,502.3419*** (1,164.6123)	26,060.8979 (29,723.1576)	14,151.6808 (14,255.2347)	7,975.5354 (10,309.4792)
Constant	14,048.1909 (23,262.9302)	129,676.7861 (178,209.5468)	159,323.3200** (70,903.4971)	-64,117.2035* (35,168.6401)
Observations	88	44	44	88
R-squared	0.7885	0.6851	0.8611	0.5181
r2_a	0.737	0.479	0.770	0.401
df_r	70	26	26	70
df_m	17	17	17	17
F	15.36	3.327	9.480	4.427
p	0.0000	0.0029	0.0000	0.0000

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

Notes. Column (1) indicates independent variables in traditional, institutional and cultural categories. Column (2) to (5) shows models: SlowOLS2, FastOLS2 (developed); SlowOLS3, and FastOLS3 (developing).

Table 4.8: Importance of variables on economic growth in SlowOLS2, FastOLS2, SlowOLS3, and FastOLS3 models

Dependent Variable: GDPPCG												
SlowOLS2 (developed)				FastOLS2 (developed)			SlowOLS3 (developing)			FastOLS3 developing)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Rank	Independent Variables	Standardized Coefficients	Eta^ (%)	Independent Variables	Standardized Coefficients	Eta^ (%)	Independent Variables	Standardized coefficient	Eta^ (%)	Independent Variables	Standardized Coefficient	Eta^ (%)
1	GCI***	0.87	11.50	EGS	1.48	2.87	GCI***	2.10	34.5	GCI***	0.75	18.00
2	REG***	0.76	6.74	ROL	1.13	2.53	REG	0.23	0.53	GEF***	0.61	13.18
3	EGS***	0.40	5.34	GRS	0.62	3.36	SOC	0.18	0.97	REG	0.30	0.41
4	TED***	0.29	3.14	HDI	0.54	1.59	FDI	0.14	1.10	FER	0.28	3.08
5	ETR*	0.17	1.12	REG	0.35	0.93	ROL	0.14	0.38	FDI***	0.25	5.13
6	ROL**	0.16	1.81	ETR	0.29	0.82	TED	0.08	0.17	EGS*	0.25	1.96
7	HDI*	0.14	0.97	FER	0.19	0.52	EMP	0.06	0.19	CPR	0.21	0.21
8	HWK	0.10	0.74	CPR	0.16	0.63	TED	0.00	0.18	SOC	0.20	1.58
9	RKN	0.07	0.03	SOC	0.06	0.09	HDI	0.03	0.03	RKN	0.17	0.18
10	FDI	0.07	0.34	FDI	0.01	0.01	EGS	0.02	0.01	EMP	0.03	0.05
11	CPR	0.05	0.08	EMP	-0.00	0.00	IGS	-0.04	0.01	TED	0.00	0.00
12	SOC	0.01	0.00	HWK	-0.04	0.04	GRS	-0.09	0.17	ETR	0.00	0.00
13	GRS	-0.17	0.88	GEF	-0.13	0.08	HWK	-0.10	0.25	HDI	-0.02	0.00
14	GEF	-0.19	0.83	TED	-0.22	1.05	GEF	-0.17	0.76	GRS	-0.05	0.14
15	EMP*	-0.20	1.05	RKN	-0.31	1.42	ETR	-0.23	0.70	ROL	-0.07	0.30
16	IGS**	-0.25	1.88	GCI	-1.53	2.26	FER	-0.30	0.93	HWK	-0.10	0.41
17	FER***	-0.38	4.78	IGS*	-1.62	3.87	RKN***	-1.29	6.78	IGS**	-0.28	2.98

Significant levels *** p<0.01, ** p<0.05, * p<0.1

Notes. The dependent variable in all models is GDPPCG. Columns 1 to 13 represents rank, independent variables, standardized coefficients, and eta^ in each model respectively. Independent variables are ranked according to effect size on GDPPCG as standardized coefficients in columns (3, 6, and 9).

4.4 DISCUSSION

4.4.1 Context and design for the chapter

The data analysis in this chapter is focussed on 12 countries grouped into six developed and six developing countries. See more information in chapter 3 section 3.4.1 and introduction to this chapter in sections 4.1 to 4.2. Besides, developed and developing countries are further grouped into slow and fast-growing countries, see section 4.3 above for more information. Hereafter, the design embraced in this chapter is as articulated in chapter 3 section 3.4.1. It is mainly about the thesis purpose of finding out why catch-up assumption of neo-classical theory seems to work in developed countries and not in developing countries. Also, why is the accumulation of causality not useful in developing countries? Is it because neo-classical theory omits cultural and institutional variables? That is what is driving this study also discussed below.

4.4.2 Estimation method and tests

The study's investigation in this chapter employed panel data. Model estimations used Ordinary least squares (OLS). See more information on fixed and random effects in chapter 3 sub-section 3.5.1. Furthermore, the severity of any presence of heteroscedasticity among countries was checked as explained in chapter 3 sub-section 3.5.1.1.

4.4.3 Summary of findings

Table 4.5 above presents the results of OLS1(combined), OLS2 (developed), and OLS3 (developing) models while Table 4.6 ranks relatively the importance of variables regarding contribution to GDPPC by using standardized coefficients. It is in this vein that hypotheses and questions in this chapter are addressed. The findings are reported in section 4.3 above.

4.4.4 The main findings

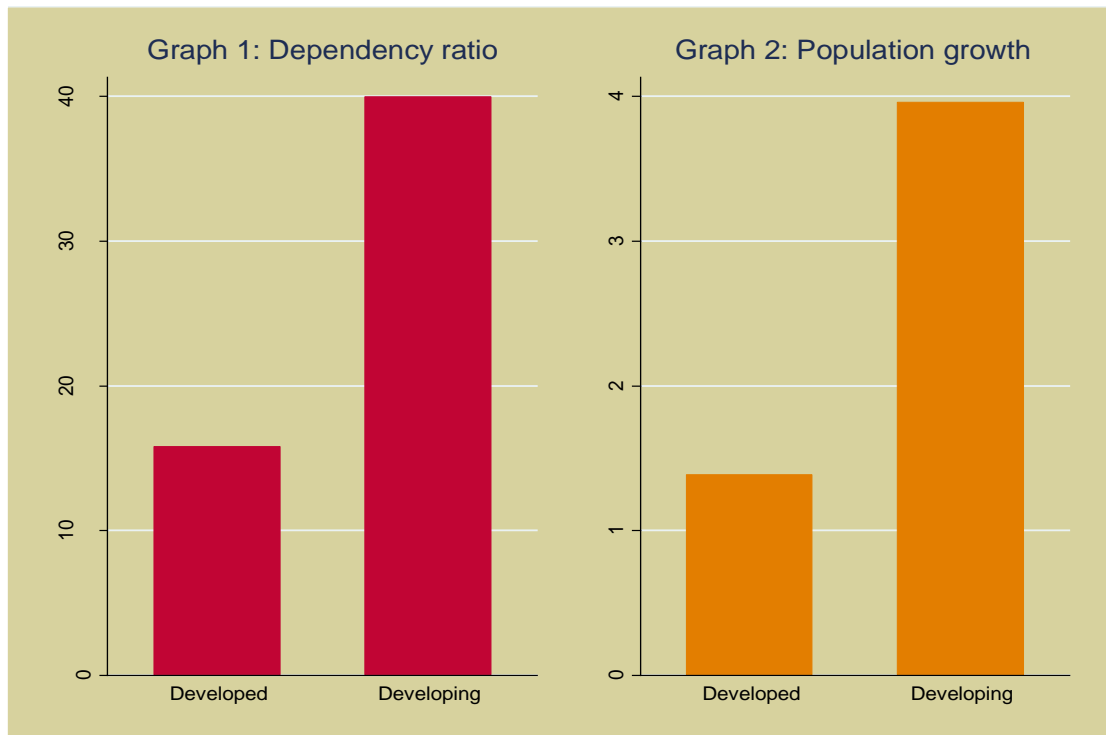
These results reported above are principally explained in the following key findings of the investigation: 1) capital stock levels are not the critical determinant of economic development but utilization capacity. 2) The competitive environment is good for economic growth in Africa. 3) Socio-cultural and political systems derail economic development in Africa. 4) Self-reliance attribute determines FDI attraction in developing countries. 5) Religion derails economic development in African countries. The findings are based on the outcomes in Tables 4.5, 4.6, 4.7, and 4.8 above for 12 developed and developing countries. These key findings in this chapter are discussed in the next sub-section.

4.4.4.1 RKN not the critical determinant of economic development

The catch-up effect of developing countries is not confirmed because RKN appears to be negatively related to GDPPC in developing countries while increases significantly GDPPC in developed countries. The differences of the impact of RKN in developed and developing countries contradicts the expectation of neo-classical theory. For instance, some scholars assume that developing countries would grow faster in GDPPC than developed countries (Solow, 1956; Swan, 1956). That is contrary to the expectation of the theories because developed countries grow faster while developing countries regress in GDPPC. The question is why negative growth in developing countries? There are some possible explanations. One of them is high population growth in developing countries as indicated by Swan (1956) and Solow (1956) that higher populations cause countries to be more miserable. Moreover, Figure 4.7 below shows that there are higher dependency ratios and population growth in developing countries than in developed countries. The lower dependency ratios and population growth in developed countries seem to enhance GDPPC contrary to developing countries significantly.

However, there are differences regarding the impact of RKN in slow and fast growth developed and developing countries as illustrated in Tables 4.5 and 4.6 above. It is reported in section 4.3.2.1 above whereby RKN in fast developed model insignificantly decreases GDPPC while in slowly developed model RKN insignificantly enhances GDPPC. In contrast, RKN in fast developing model insignificantly increases GDPPC while in slow developing model RKN significantly reduces GDPPC. Therefore, both the development level of countries and the state of economic growth in countries affect RKN performance. It, thus, meets the aim of this chapter of investigating what explains income disparities among countries.

Figure 4.7: Age dependency and population growth in the countries



Notes. The dependency ratio and population growth are very high in developing countries than in developed countries.

Another possible explanation for why RKN significantly reduces GDPPC in developing countries while significantly enhances GDPPC in developed countries is differences in HDI. The developed OLS2 model in Table 4.5 above shows that HDI contributes significantly to GDPPC. In contrast, in developing the OLS3 model, HDI insignificantly reduces GDPPC. Concerning effect size, HDI in developed countries is more than 16 times more effective than in developing countries. The differences in HDI significance between developed and developing countries are illustrated in some of the dimensions demonstrated in Figure 4.9 below. The figure shows that developed countries have scored well in all the four elements demonstrated in graphs 1 to 4 below. The differences in the dimensions of HDI between developed and developing countries reflects the HDI performance in the developed OLS2 model and developing the OLS3 model. HDI is also regarded in literature as social capability mainly through the two elements demonstrated in graphs 3 and 4 in Figure 4.9 below (Neumayer, 2001). The social capability is higher in developed countries than in developing countries because they have higher human capital that sustains their economic growth as illustrated in graph 3 in Figure 4.9 below.

In contrast, developing countries have lower human capital and fail to sustain economic growth in them as noted in graph 3 same figure. Therefore, the findings in the developed OLS2 model and developing OLS3 model agree with the observations

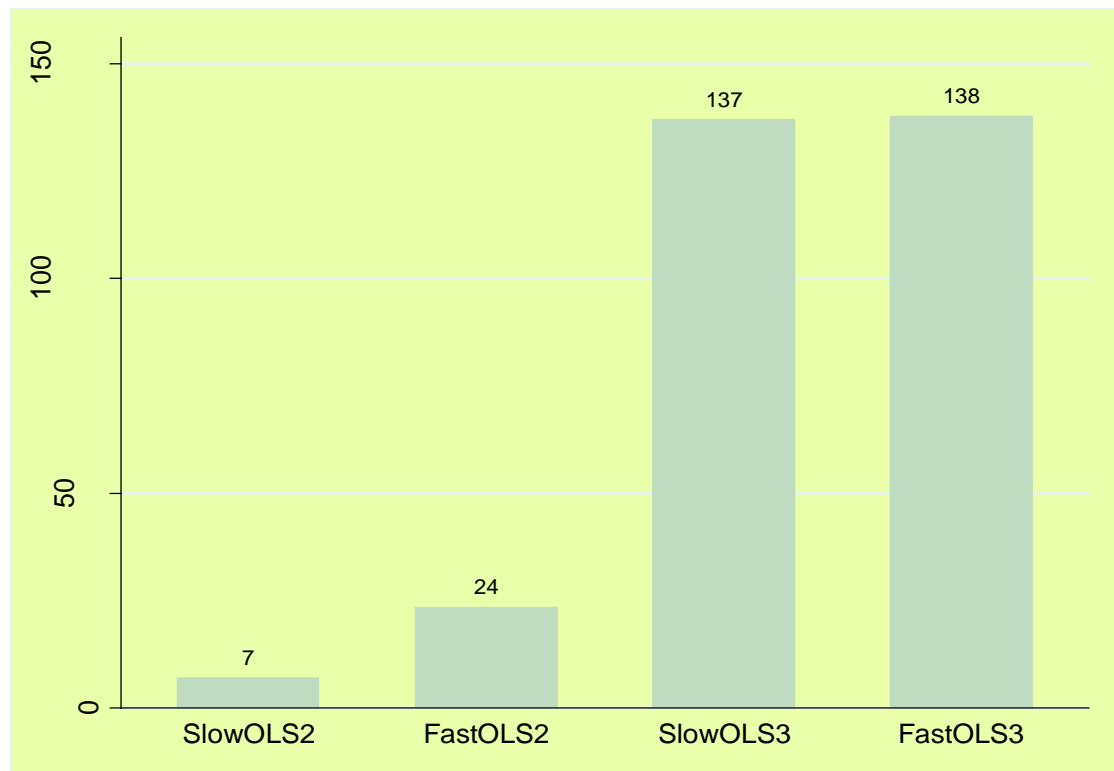
in Figure 4.9 below. It is expected in the literature that RKN levels determine the capacity to increase the flow of goods and services (Ekins et al., 2003). It seems to suggest that the decline in RKN levels in developing countries impedes the flow of goods and services while the increase in RKN levels in developed countries propels the flow of goods and services (Aghion and Howitt, 1998). For this reason, the utilization capacity as claimed by Commendatore et al. (2014), is key to keeping RKN levels and maintaining or increasing the flow of goods and services in both developed and developing countries. That seems to agree with Neuayer (2001) who observed that depreciation of both manufactured and natural capital that is greater than investment leads to the unsustainability of economic development.

The results reported in section 4.2 above show that HDI in developed FastOLS2 model insignificantly contributes to GDPPCG. In contrast, in the developed SlowOLS2 model, HDI significantly impact GDPPCG. Also, HDI in developing FastOLS3 model insignificantly reduces GDPPCG while in developing SlowOLS3 model insignificantly enhances GDPPCG. These observations seem to suggest that utility capability in slow-growing countries in both developed and developing seems to be better than in fast-growing countries in both developed and developing countries. These observations confirm the utility capacity ranking of the respective groups of countries demonstrated in Figure 4.8 below. What does this mean for the negative impact of RKN in developing countries? Considering the explanations above, most of the developing countries fail to reach the threshold of utilizing capacity that maintains stock levels to propel economic growths in the countries. Figure 4.9 below demonstrates some elements of HDI that reveal high gender inequality, high underweight children, low human capital index levels in developing countries compared to the developed countries. These findings meet the objectives of the thesis in that some causes of income disparities among countries are explained above.

Hence, this section notes that RKN significantly enhances economic growth in developed countries while in developing countries negatively related to economic growth. That is contrary to the neo-classical expectation of catch up and accumulation effect. However, the accumulation effect seems to work in developed countries, for example, the six founders of EU countries between 1950 to 1973 grew at higher rates than the UK and eventually caught up as observed by (Whyman and Petrescu, 2017). Therefore, policies or variables that are good for developed countries might not be suitable for developing countries. It is also noted that population growth and high dependency ratios negatively impact economic growth in developing countries. In this vein, RKN levels seem not the critical determinant for economic growth in developing countries but utilizing the capacity to maintain or increase the RKN levels. This utility capacity seems to agree with Herrnstein and Murray (1994, 2010) who claimed that the

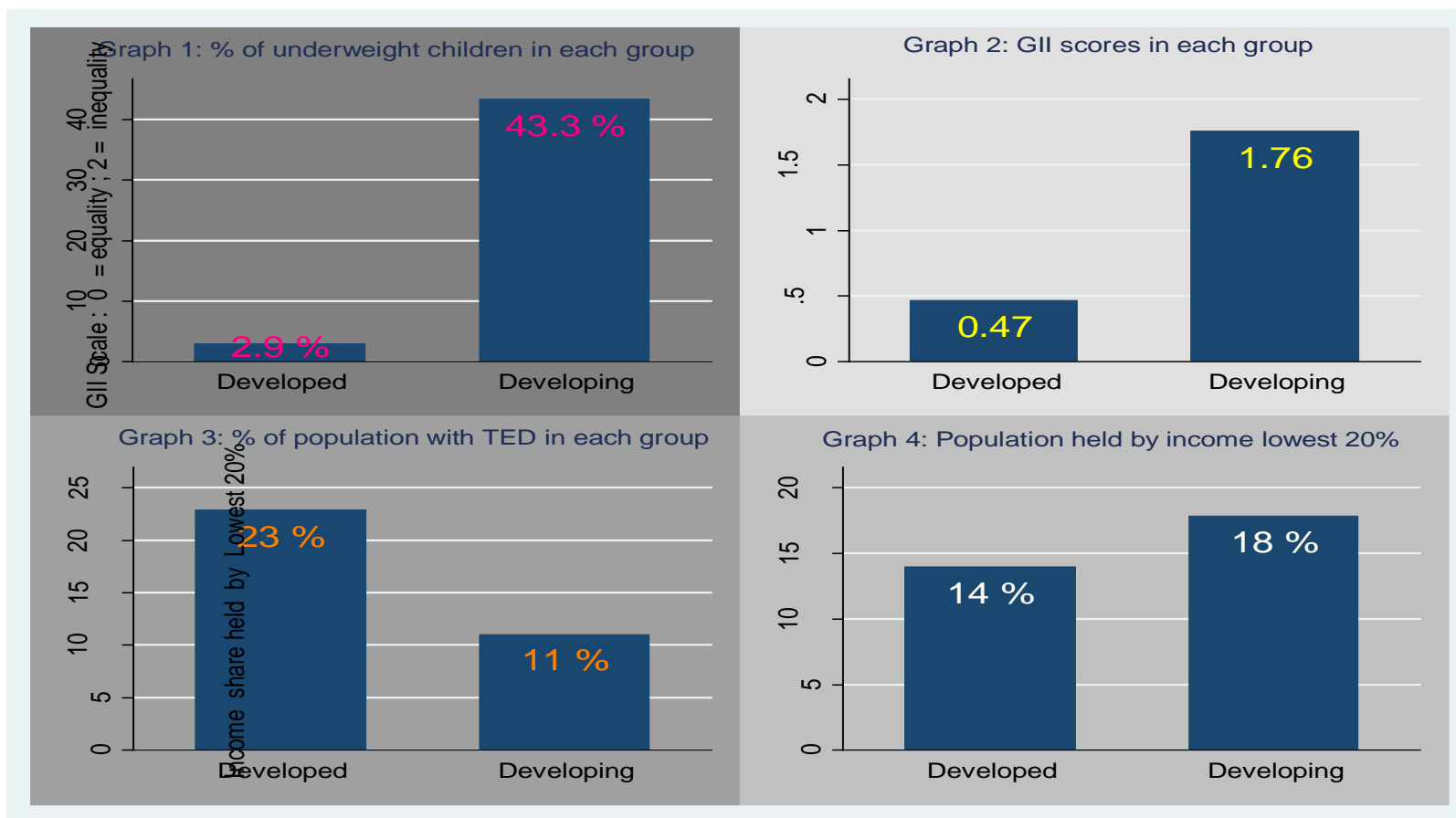
reasoning ability of individuals predicated their productivity. Also, utility capacity according to Rindermann and Thompson (2011) could be referred to as intelligence which he said determines technology and other scientific achievements, hence creating the wealth of the countries. That is in line with the investigation of the thesis of finding out if cultural factors explain income disparities among countries. The next topic to be discussed is how competition among countries affect economic growth in countries.

Figure 4.8: Ranking of countries by scores of HDI (utility capacity)



Notes. Countries with lower ranking have the higher achievement of HDI than countries with higher HDI.

Figure 4.9: Key elements of HDI in developed & developing countries



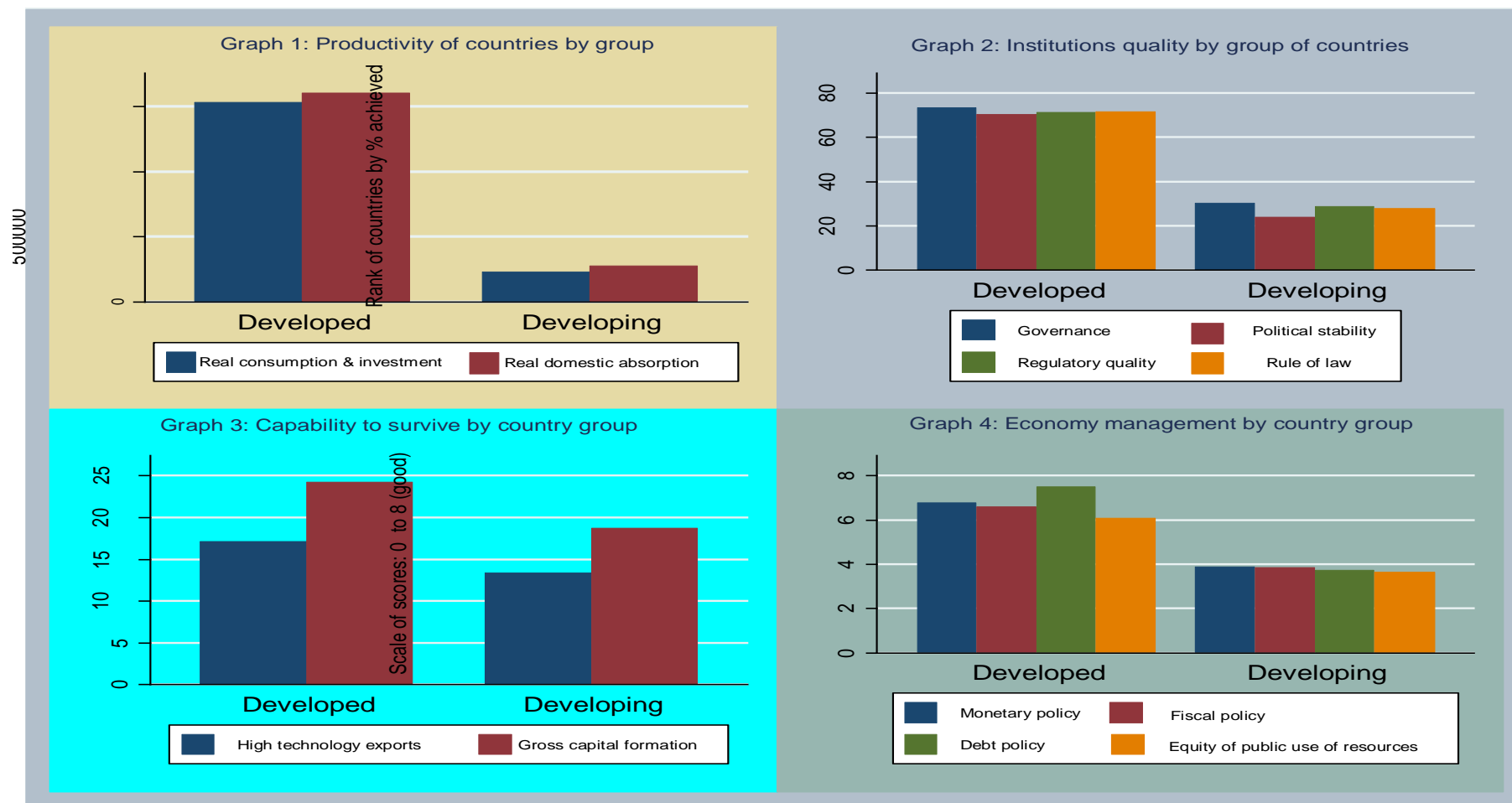
Notes. The critical components of HDI illustrated in graphs 1 to 4.

4.4.4.2 Competitive environment good for economic growth in Africa

The results for GCI in developed and developing countries are reported in sub-section 4.3.2.1 above. The components of GCI demonstrated in Figure 4.10 below. Developed countries have higher scores in each component of GCI than developing countries. For example, graphs 1 and 3 in Figure 4.10 below show that absorption capacity and technological exports are much higher in developed countries than in developing countries. Also, graph 2 indicates that institutional variables for developed countries have higher scores than in developing countries. Furthermore, the management of resources in developed countries is far higher than in developing countries. Therefore, even though this competitiveness among countries seems to benefit developing countries as well, the benefits could rise more if the countries have much higher scores in each component of GCI.

The globalization of world economy centers on countries depending on each other concerning goods, services, and capital flow as explained more in chapter 2 section 2.5. In other words, the competition among countries for the production of goods, services, and capital flows creates wealth and success of the nations (Smith, 1776, p. 687). The results of GCI in Table 4.5 above seem to confirm the importance of globalization of economy and competition among countries. However, erratic economic growths in developing countries as claimed by Korotayev and Zinkina (2014); Ndulu et al. (2007) raises the concern of globalization of economy and competition among countries. Why? According to Marx (1906, p. 626) the competition battle is fought by lowering the prices of the goods and services that rely on the productivity of each countries' citizens and the scale of production in place in each country. Moreover, Marx concluded that countries with larger capitals get the larger share in the creation of wealth and success of the nations as demonstrated in Figure 4.11 below.

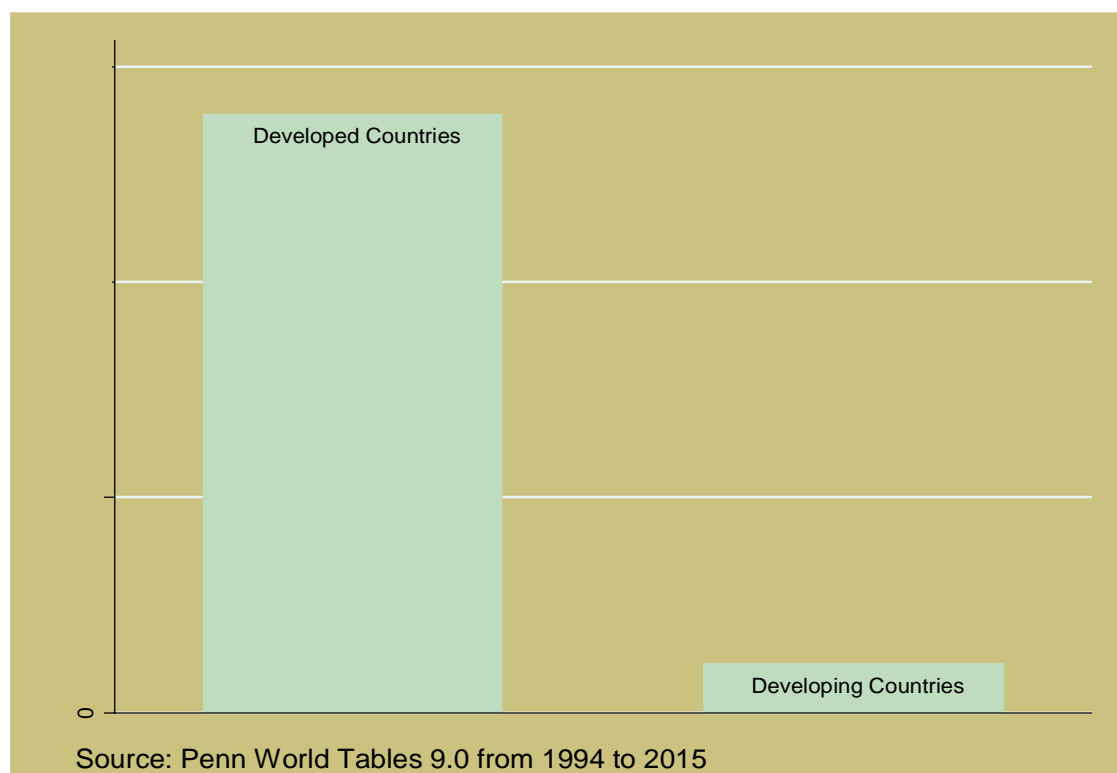
Figure 4.10 Components of GCI in countries



Notes. Graphs 1 to 4 for developed and developing countries illustrate absorption capacity, institution quality, capital & technology, management of resources respectively

Therefore, the differences in capital stocks according to Marx seem to determine the performance of countries. However, the assumption of the neoclassical theory that competition takes place in the perfect market environment seems not to hold in the current wealth distribution among countries. Furthermore, a country's position in the global market does not only rely on the macroeconomic environment but also microeconomic characteristics (Önsel et al., 2008). Figure 4.11 below indicates that developed countries have a massive advantage over developing countries regarding RKN that determines creativity of the countries in sustaining economic growth.

Figure 4.11: RKN in developed and developing countries

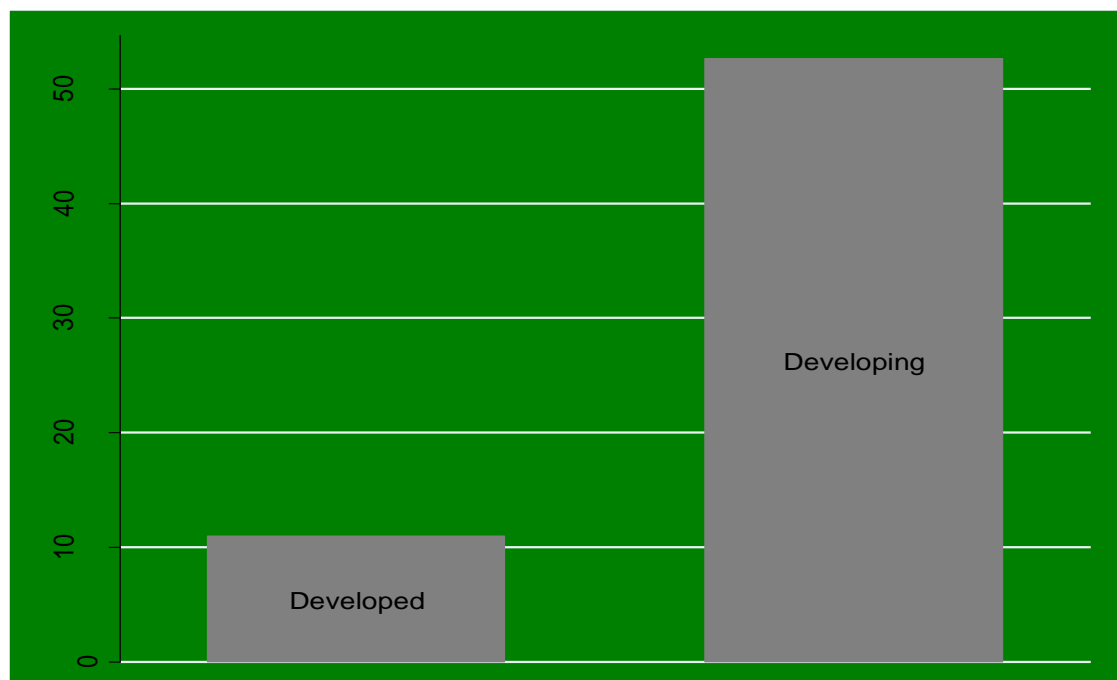


Notes. This figure shows mean differences of RKN in developed and developing countries.

Even though globalization and liberation of markets seem to increase, developing countries seem to fall short of the competitiveness that would benefit and sustain economic growth in those countries. This failure exposes developing countries' resources to more able competitors leading to erratic economic growths that do not liberate citizens from severe poverty in the countries. These costs of globalization are highlighted in the literature (Gnegne, 2009; Intriligator, 2004). It reflects the citizens' views concerning what they perceive about themselves regarding competition as highlighted in sub-section 4.4.4.2 above. There seem to be national differences in all complex problem-solving strategies suggesting that individual skills

in solving problems are culturally specific, determined by ecological and socio-political context, see chapter 2 sub-section 2.4.2.1 for more information. Therefore, globalization seems not adequate to solve the problems of underdevelopment in developing countries as noted by (World Economic Forum, 2000). The differences in standards of living in developed and developing countries are still very high as highlighted in Figure 4.12 below shows the poverty headcount ratio of people living on \$1.90 PPP of the total population.

Figure 4.12: Poverty differences in developed and developing countries



Notes. Poverty headcount in developed countries is about 10% of the total population while in developing countries is slightly over 50% of the total population.

What type of competition reflect in the affirmative and significant contribution in developed and developing models? Smith (1776) claimed that all the production factors in the models depend on:

"Every man, as long as he does not violate the laws of justice, is left entirely free to pursue his interests in his way" (Smith, p. 687)

The competition among the individuals is what Smith called 'invisible hand' that leads to the success of the societies. He connected the pursuit of profits of individuals to the society's success in that the latter came as a result of self-interests of the individuals which was not the purpose of laboring. That suggests that the competition between individuals for individual gain could be likened to competition among firms or countries for wealth accumulation. Hence, the competition leads to better ways of production and discovery of new markets for the creation of wealth as shown in section 2.2 in chapter 2. Therefore, this capacity to create and sustain the

levels of RKN relies on culture attributes of saving, and thrift, self-determination, feeling the responsibility, independence and many other attributes that support economic growth in individuals and at country levels (Weber, 2001; Weber and Swedberg, 2009). Also, Gintis (1972) suggested that economic activity has a development effect on almost every aspect of social life through individual welfare depends on the community, work, and environmental structures and individual psychic development. At some point Mill acknowledged that an economic man is partly purposed in maximizing wealth but at the same time there are constraints of aversion laboring and subjection to leisure, the latter leading to underdevelopment opposite to creation of wealth (Blaug, 1992; Bowley, 2013). These characteristics are further explored in the case study between Malawi and Botswana (chapter 6) to see if differences in the characteristics of people explain economic level differences between the countries in line with the findings in this chapter.

All in all, competition seems essential for enhancing economic growth in both developed and developing countries. However, the differences in the scores of the components of GCI between developed and developing countries explain differences in income disparities between developed and developing countries. Also, globalization through promoting competition among countries also enforces cultures that are contrary to the developing countries (Thurow, 2009, 2003; Al Mamun, 2008). It seems to hinder the development of capability in developing countries due to the tension between the global and national cultures, see sub-section 2.5.2 for more details. That is in line with the purpose of the study of finding out if cultural variables hinder or enhance economic growth among countries. This section appears to suggest that socio-cultural and political systems contribute to the competitiveness of the countries further discussed in the next section.

4.4.4.3 Socio-cultural and political systems derail economic growth in Africa

Section 4.4.2.2 above reports the performance of cultural variables related to the finding in this section. The differences of the performance of variables in the cultural category in developed and developing countries may reflect what Önsel et al. (2008) observed, that the prosperity of the country not only relies on economic and institutional factors but also relies on their conditions and preferences that determine their success in the global market. It seems to suggest that subjective choices of citizens in each country reflect in what people think about politics and responsibilities. For instance, graph 1 in Figure 4.15 below shows that individuals own welfare responsibilities in developed countries while in developing countries government owns welfare responsibilities. In countries where the citizens' view its government as having the responsibility, there is no competition among the individuals. Also,

according to Smith (1776) without competition among the individuals' society cannot succeed. The responsibility of individuals inclines citizens to pursue profits of individuals leading to the society's success. It is in line with traditional theory assumption that self-interests of individuals are a source of societies' welfare wealth creation. Of course, an individual is somewhat purposed in maximizing wealth but at the same time is exposed to constraints of aversion to laboring, and instead can be subjected to leisure that leads to underdevelopment (Blaug, 1992; Bowley, 2013). Figure 2.2 in chapter 2 illustrates the point that the environment determines the development of the capacities of individuals. This figure shows that cultural systems contribute to the formation of both economic and social systems which impact on the development of individuals. Furthermore, the figure indicates that the development of an individual's capacities depends on the interaction in the whole environment in which the individual located. Arguably, this is a dynamic relationship in that individual's thinking is not limited by culture but their preferences or behaviors fluctuate according to different situations (Zou et al., 2009).

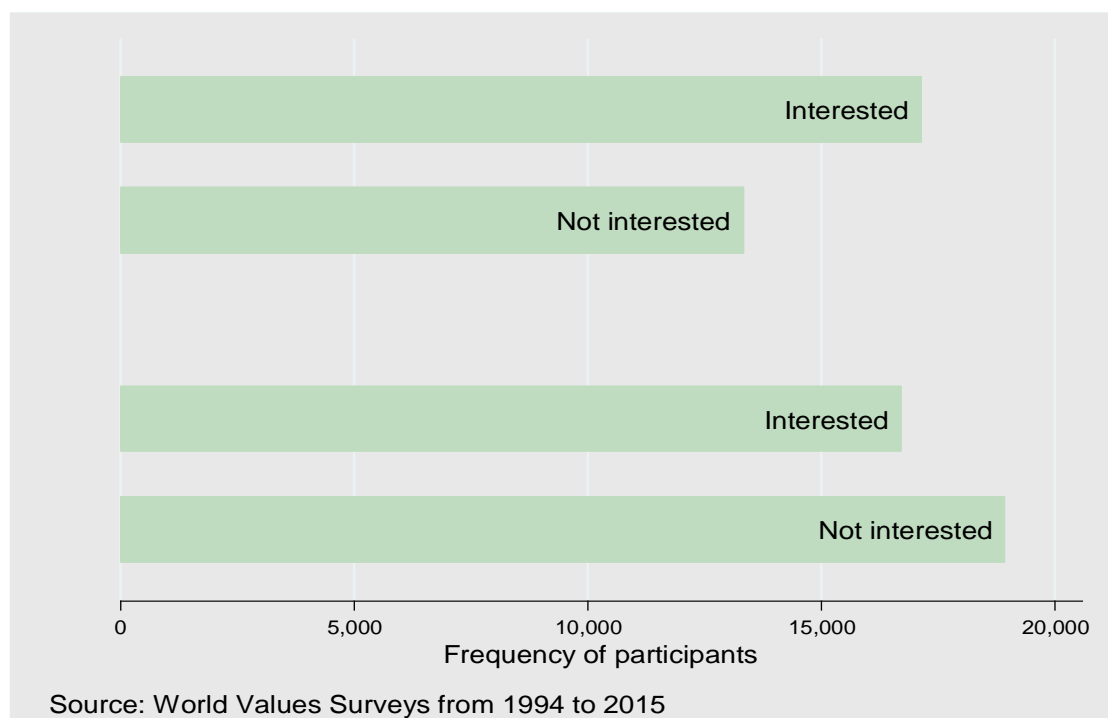
Another explanation as reported in sub-section 4.3.2.2 above is that socio-cultural and political systems derail economic development in Africa. That is in line with the performance of CPR in Table 4.5 above. The subjective choices of each country's citizens are reflected in what people think about politics. CPR is captured as already explained in sub-section 4.3.2 above. The outcomes of the views of participants are illustrated in Figure 4.13 below. More participants in developed countries consider politics significant than in developing countries. The difference between the views of participants concerning the importance of politics is reflected in the CPR performance in Table 4.5 above. It seems to suggest that a unit increase of CPR in developing countries increases economic development. Hence the current situation in which many people in developing countries do not consider politics important, CPR insignificantly enhances economic development.

In contrast, in developed countries, more people consider politics very important rather than not essential which reflects public capital performance in Table 4.5 above. It is what Phelps (2013) calls grassroots innovation whereby people are free and able to assume an appropriate alternative correctly with greater responsibility to compete with other countries globally. That too is echoed by Carrillo (2014) who acknowledged that knowledge-based competition of countries rests on an economic, political and cultural order sustained by intangible values. These intangible values sustain the modern standard of living through achieving the balance between access, use, and marshaling energy for optimal outcomes (Smith and Max-Neef, 2011). The intangible values can reside in social network patterns that determine the

performance of activities affecting outcomes (Smith and Allee, 2009). In other words, variations of CPR understanding among countries could be due to cultural differences, socio-cultural and political environments (Jackman and Miller, 1996b).

Furthermore, the lack of accountability in developing countries may discourage people from engaging in politics. For instance, possibly most of the leaders in developing countries are plagued by what Banfield (1958) called amoral familism whereby, leaders do all they can to enrich their families at the expense of all citizens. The families here could also apply to the political parties to which they belong. Consequently, the rule of law may fail to function and this could lead to fewer people participating in CPR in developing countries. Also, Acemoglu (2003) suggested that in the countries where the rule of law is applied selectively there is unlimited political and economic power to the elite who use this power for the benefits of the few. As a result, there is weak civil cooperation making the rule of law unable to functional (Stoelhorst and Richerson, 2013). Hence, less CPR is associated with citizens not participating or engaging in politics responsibly as illustrated in Figure 4.13 below.

Figure 4.13: Interest in politics versus economic growth in countries



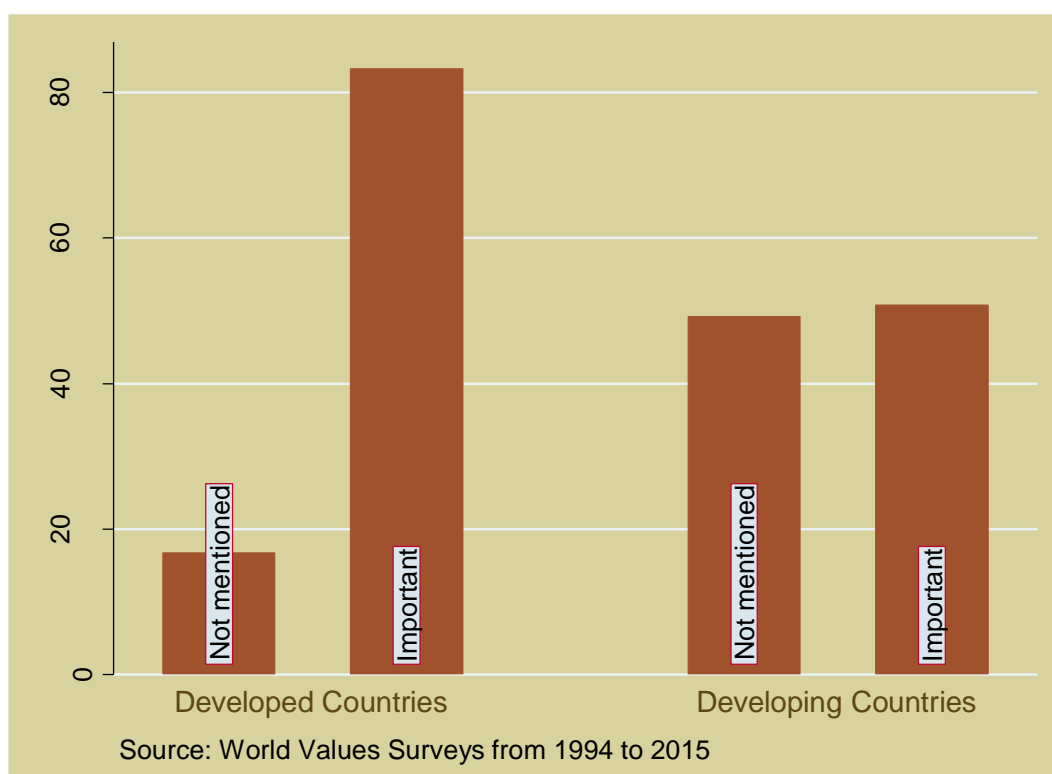
Notes. More citizens in developing countries do not engage in politics, while in developed countries more citizens engage in politics.

Having looked at CPR as one of the factors that seem to hinder economic growth in developing countries, the next factor to be discussed is FER. This factor if

embraced in culture is said to drive economic development (Tabellini, 2010). Figure 4.12 below shows that this factor less embraced in developing than in developed countries. This variable too is part of socio-cultural and political environments that seem to derail economic development in developing countries. FER in developed countries in Tables 4.5 above insignificantly reduces GDPPC.

In contrast, in developing countries, FER significantly contributes to GDPPC. Despite the observation in Figure 4.14 below that the majority of people in developing countries are not responsible citizens, hence not being actively involved in improving the communities in which they live (Carroll, 1979). FER significantly impacts economic growth in developing countries, why? Part of the explanation could be that FER in developed countries does not perform well due to responsible and quality institutions in place contrary to developing countries as illustrated in graph 2 in Figure 4.8 above. Hence, the responsibilities of the citizens significantly contribute to economic growth when institutions fail to function as they are supposed to do. It seems to suggest that in countries where there are weak institutions cultural attributes seem to perform well. Hence, differences in the functions of institutions seem to suggest differences in the importance of culture on economic growth. That also seems to suggest that ideas, values, feelings, skills, knowledge, beliefs attitudes, strategies, and goals are embedded in cultural experiences that are different in different contexts (Heine, 2008; Richerson and Boyd, 2005; Richerson et al., 2010; Gifford, 2009). That being the case, the socio-cultural environment seems to influence strategy formulation and its utilization in dealing with problems. What does this suggest? The results suggest that FER enables people to be productive, hence, leading to economic growth. Therefore, learning FER attribute in most of the developing countries would enhance even more productivity of the countries (Rogers, 2010). Hence, the assumption of the endogenous theory of putting much emphasis on education fails to release the full potential of people. Instead, education systems in developing countries should be able to inculcate values such as FER to boost productivity in people with education attainment levels.

Figure 4.14: FER in developed and developing countries



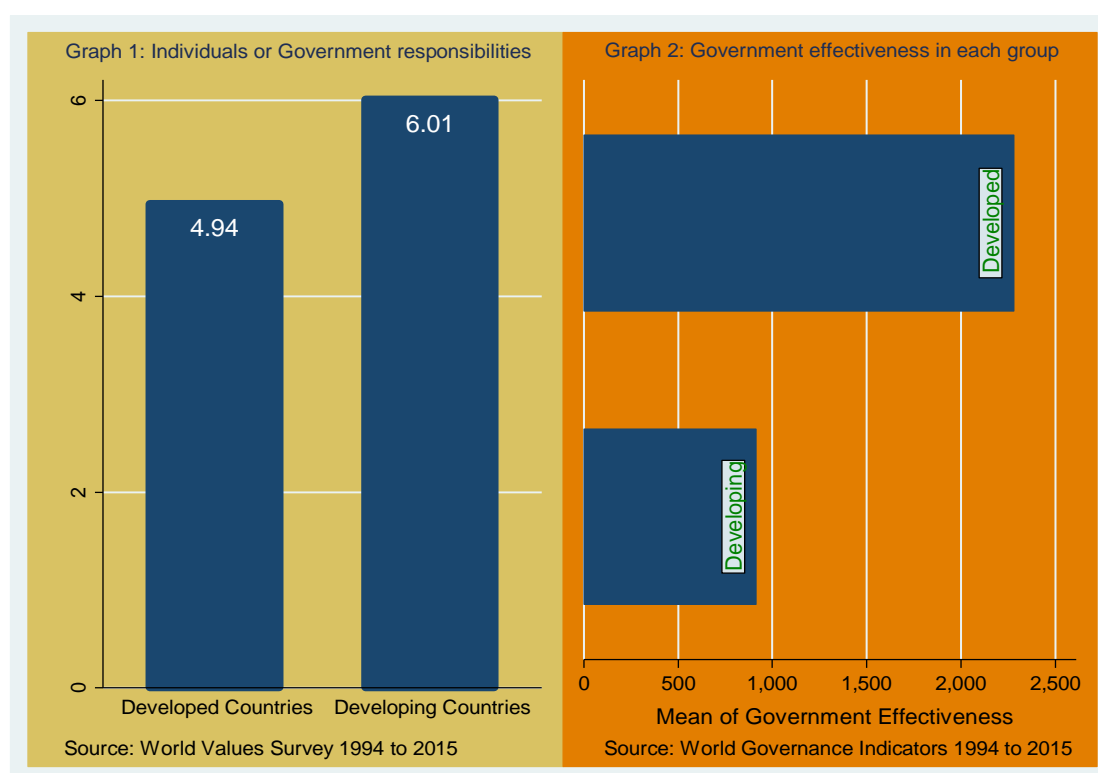
Notes. This figure shows participants' views in each group of countries concerning the importance of FER.

Hence, the differences in views of people concerning responsibility in countries have implications for the effectiveness of their governments dealing with issues. Moreover, once people have more responsibilities they put leaders in positions with responsibility such as is the case in developed countries. Furthermore, in societies where individuals have more responsibilities they believe in the competition that in return improves the wealth of the society (Cardinal et al., 2006; Guiso et al., 2003). In contrast, in developing countries, people seem not to care about government use of resources, and hence are not bothered when leaders misuse the resources. Figure 4.15 below demonstrates the evidence that government effectiveness correlates with individuals' responsibility. For instance, graph 1 shows that people in developed countries are more responsible than in developing countries. Also, graph 2 shows the government effectiveness that helps for example to reduce income gaps among its citizens. In so doing, the resources of the country could be directed appropriately and responsibly to meet the needs of the citizens. There seems to be an association between government effectiveness and government responsibility which appears to agree with the findings of GEF reported in section 4.3.2.2 above. Hence, cultural orientations that enhance government effectiveness

seem to have an economic payoff as noted by (Sapienza et al., 2006). For instance, Table 4.7 above shows remarkable differences in the performance of GEF and FER in SlowOLS3 and FastOLS3 models for developing countries. In the fast model, both GEF and FER significantly contribute to GDPPCG while in the slow model they insignificantly impact GDPPCG.

All in all, cultural factors such as FER and CPR as discussed above are crucially needed in developing countries because they are useful for enhancing economic growth. It has been observed that virtue such as CPR enhances economic growth in developed countries while in developing countries insignificantly impact economic growth. It meets the purpose of this investigation of identifying factors that enhance or hinder economic growth in the countries. Generally, this section has highlighted that socio-cultural and political systems determine the economic level of countries. See more discussion on this topic in section 2.3 in chapter 2. However, there are other factors such as self-reliance that appear equally crucial for enhancing economic growth. This factor is discussed further in the next section.

Figure 4.15: Government effectiveness versus responsibility in countries



Notes. Graph 1 shows the mean scores below 5 as individuals own responsibility while mean scores above 5 indicate responsibilities for governments. Graph 2 indicates the scores of government effectiveness in its operations in each group.

4.4.4.4 Self-reliance attribute determines the FDI attraction of countries

Sub-section 4.4.4.2 above discusses competition among countries in the global economy and its positive contribution to economic growth in the countries. The disparities in economic growth between developed and developing countries depend on how these countries react to the same global changes. It is only those countries with the capabilities to compete globally that will enjoy the opportunities provided by globalization while those countries which are less competitive are vulnerable to external competition (Slaughter, 1997; Thomas, 1997). Developed countries dominate the competitive and dynamic environment according to Thurow (2009; 2003) since they are economically empowered as they control about 57% of world GDP. As a result, the global culture mainly reflects the core values of western societies such as freedom of choice, individual rights and market liberalism (Gupta and Govindarajan, 2004). This is why self-reliance perception and understanding enables countries to gain from this competitive environment. For example, importation of goods from technological leaders aligns with technological advancements of the countries importing, hence promoting productivity that seems to be the engine of economic development (Lawrence and Weinstein, 1999; Rivera-Batiz and Xie, 1993). It is observed in the performance of IGS in Table 4.5 in OLS2 and OLS3 models for developed and developing countries respectively. For instance, IGS in developed OLS2 significantly reduces GDPPC while in developing OLS3 model insignificantly reduces GDPPC.

On the other hand, too many expenses on imports characterize strict limitation of economic development. Therefore, developing countries need to understand that to survive the competition they are engaged in, and they need to devise strategies or plans to continue to make the profit (Porter, 2008). It demonstrated in slow and fast growth models in developing countries whereby FDI in FastOLS3 model significantly enhances GDPPC while in SlowOLS3 model insignificantly promotes GDPPC. However, self-reliance and dependence syndrome are two sides of the same coin. Chapter 2 section 2.3.1.3 discusses the causes of dependency or self-reliance attitudes in the countries. This will be further examined in chapter 5. Hence, the next section to be discussed is religion.

4.4.4.5 Religion derails economic development in African countries

Weber (1958) claimed that the spirit of capitalism caused the wealth accumulation of the nations. Capitalism embodied the cultural factors associated with Puritans in Europe and USA. Moreover, the PWE explicitly focused on one's calling as interpreted by John Calvin who encouraged his followers to be involved in the worldly activity of work as the duty to God's purpose (Nielsen, 2016). That contrasted

the prevailing views of medieval Catholic Church whereby work was a curse and nothing else (Adriano, 1977; Hardy, 2001). In other words, the Catholics viewed world achievement as a barrier to God's blessing while the Protestant churches regarded worldly achievement as a sign of election to eternal life after death. In this way, the cultural aspect that drives capitalism is the habits of acquisition and enjoyment of luxuries. Weber's thesis culminates in this quotation:

“...it is at the same time determined by the ability and disposition of men to adopt certain types of practical, rational conduct” and that “The magical and religious forces...been among the most important formative influences on conduct.” (Weber, 1958, p. 26).

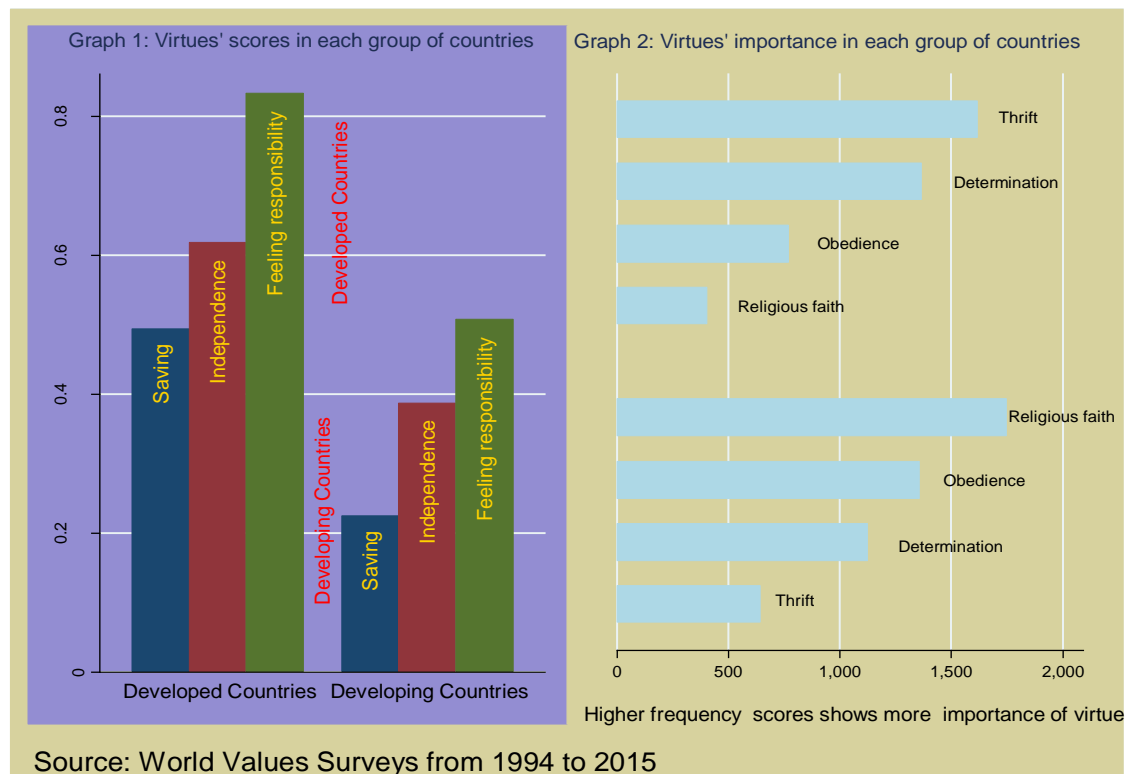
Weber's work 'the Protestant work ethic' remains controversial, even though, it has attracted support from many scholars like (Van Hoorn and Maseland, 2013; Tawney, 1926; Harrison and Huntington, 2000; Rupasingha and Chilton, 2009; Bettendorf and Dijkgraaf, 2010; Linz and Chu, 2013; Cavalcanti et al., 2007; Hill, 1996). For instance, Marx (1867, 2010) attributed to the change of the values in people's lives to economic production technologies. Also, Becker and Woessmann (2009) were of the view that the cause of the spirit of capitalism was not a result of Protestant work ethic values as explained by Weber. However, instead, they claimed that human capital formed through education in Protestant church schools is what caused the beginning of capitalism. However, the previous claim seems irrelevant because according to Thompson (1984) and Blum (2001) vernacular languages were taught in Protestant schools to enhance understanding of Protestant faith among the followers and not for educational attainment as perceived today.

Furthermore, McClelland (1961) also ascribed economic development to cultural values of the society. He claimed that non-economic forces might help to explain the economic development problems faced by many nations. It assumed that books reflected the cultural values, norms, and beliefs that influenced the countries' decision making regarding economic development (Iannaccone, 1998). Despite the support he receives from social sciences through annual citations, Schatz (1965) together with Giljeard (1989) criticised McClelland's association of need of achievement⁴² Moreover, economic growth without using conventional economic techniques and they claimed that need achievement did not cause the rate of economic growth. In contrast, Freeman (1976) in her conclusion supported McClelland's claim that the need for achievement is essential in explaining economic differences across countries.

⁴² Being creative or conforming to prevailing standards (Freeman, 1976:816)

OLS2 (developed) and OLS3 (developing) models in Table 4.5 above indicate that religion tends to have a significant positive impact on economic growth in developed nations, whereas it significantly reduces economic development in developing nations. It may be due to a PWE versus catholic or even Islamic influence as explained above. Could a positive impact in some developed nations be due to PWE? The evidence in graph 2 in Figure 4.16 below shows that developed nations tend to place greater emphasis upon more individualistic values of determination to succeed and thrift than do developing nations, whose emphasis is more traditional in orientation, emphasizing obedience and religious faith (Harrison, 1985; Morsc, 1964; Branco, 2007). It may interact with other evidence from the world values studies, which indicate that citizens of developed nations place greater emphasis upon personal responsibility and independence than do citizens of developing nations as indicated in graph 1 same figure. Consequently, it might be the case that it is more traditional values, which place greater emphasis upon universal social norms, which may include religious faith and obedience, rather than more individualistic values which may foster a different approach to work and business activity, and hence economic growth.

Figure 4.16: Virtues' differences between developed and developing nations



Notes. Graph 1 indicates the cultural values of saving, independence and feeling responsibility. Graph 2 shows the characteristic of thrift, determination, obedience, and religious faith.

All the above reasons might be valid, but it seems there is more to why in developing countries religion reduces GDPPC. In sub-section 4.4.4.3 above it is pointed out that most of the leaders in Africa lack accountability in their leadership. It does not exclude leaders in the church, mosques, and other faiths' places of worship. The developing model shows that 3.6% of GDPPC reduced due to religion, similar to the findings of (Grier, 1997, p. 47). In contrast, Weber (2009) attributed the spirit of capitalism to religion. The spirit of capitalism revolves around: independence, determination, saving and thrift or profit orientation, which are the virtues prevailing in developed societies as indicated in Figure 4.14 above (Mathers and Williamson, 2011; Marini, 2004). Of course, there are functional attributes that people have that are positively friendly to economic development in developing countries. However, hard work spirit encouraged by religions such as Judaism, Christianity, Islam, and many others seem not to influence GDPPC in developing countries significantly. Why? The possible reason could be that the traits of culture such as hard work claimed to be sources of economic growth seem not to work in developing countries due to the impact of religion as shown in Figure 4.14 above. This finding in this section relates to the purpose of the thesis of examining the variables in all the three

categories so that those critical for enhancing economic growth among countries identified plus the countries are encouraged to embrace them.

All in all, the discussions above show that utility capability or social capability, competitive spirit on individuals, feeling the responsibility, self-reliance, and political capital are important factors needed in developing countries to enhance economic growth. It is in line with the purpose of this thesis of examining whether cultural factors explain economic disparities among countries. It is perceived that the accumulation of capital and foreign aid seems not to explain economic disparities among countries. Furthermore, the estimations in Tables 4.5 and 4.7 acknowledged bias due to combining developed and developing countries in the model, hence, developed and developing countries had separate models. That has exposed variables that contribute differently in developed and developing countries. Therefore, excluding some categories of variables in the model does not explain economic realities in the societies with different lifestyles or preferences. The approach in this study seems to be in a better position to explain the income disparities between developed and developing countries. However, some findings in developing countries need further exploration which will be the primary purpose for chapter 5.

4.4.4.6 How the findings of this thesis fit with the existing literature

Generally, the findings discussed in section 4.3 reveal that economic growth is not uniform among countries. That seems to suggest that the policies that have worked in developing countries may not work in the same way in developing countries as noted by (Hausmann and Velasco, 2008, p. 1). The findings also show that Socio-cultural and political systems derail economic development in the African context. The variables that revealed this are CPR, religion, and feeling responsibility. Also, self-reliance orientation seems to be the critical element in enhancing economic development in developing countries other than depending on foreign aid. In the light of the above findings, Appendix 1 below briefly compares the findings to other studies.

4.4.4.7 Strengths and weaknesses of literature versus this study

Firstly, Appendix 1 below incorporates studies with similar or different methodological approaches to this study. Although most of the studies in Appendix 1 have similar approaches to research for this study, they used different techniques for estimating the variables in the models. Moreover, yet some have similar results to this study. Besides, most of these studies used WVS as the source of cultural variables. Secondly, Appendix 1 also illustrates some studies with different methodological approaches to this study. For example, studies in rows 8 and 10 in Appendix 1 below had the investigation in China and the United States of America respectively. These studies used national surveys for cultural variables. Despite differences in the

approach with this study, the results indicated that cultural values are essential for economic development. Hence, the next paragraph will briefly discuss why this study is different and highlight weaknesses and strengths for other studies which are briefly discussed below.

Dinda (2008) narrowed culture to social capital and argued that it increases human capital that he claimed propels economic growth in the countries. Even though the author found that social capital significantly impacted on economic growth, the author engaged very few variables from WVS covering the period 1990 to 2000. Moreover, Dinda's study is different from this thesis regarding the estimation approach by combining developed and developing countries in his estimation, contrary to this study. Also, Dinda's study only covered the period from 1990 to 2000 while this thesis covers the period from 1994 to 2015 on variables with up to date data. Similarly, Guiso et al. (2004) researched on how differences in social capital levels in Italy affected the behavior of people differently concerning cheque usage, investment in cash or stock and accessibility to institutional credit. They sourced data from WVS from 1990 to 1999 and observed that social capital plays an essential role in the degree of financial development across different parts of Italy. They researched in different parts of Italy while this study focuses on six developed and six developing countries. They defined culture by equating it to trust which is too narrow. Hence, this study addressed this by generating eight cultural variables. Likewise, Maridal (2013) researched 92 developing countries with many cultural variables in the model. However, many developing countries do not have consistent WVS data, hence, liable to bias. It was addressed by reducing developing countries to only 6 with consistent WVS data. Other studies in Appendix 1 are prone to the same criticisms highlighted above. For example, Mathers and Williamson (2011); Gennaioli et al. (2013); Petrakis and Kostis (2013); Granato et al. (1996a) combined developed and developing countries together in their estimations. Moreover, most of these studies used WVS as the source of study which does not consistently cover developing countries mainly in Africa.

On the other hand, Gaddis (2013) investigated the influence of habitus in the relationship between cultural capital and academic achievement. He used data from Big Brothers/ Big Sisters of America program during the 1990s. He engaged data collected from national surveys in the USA, hence, may not be generalized to most of the developing countries. Hence, this study is different regarding the context of the study and cultural data used for the study. Besides, the next section will briefly discuss the theoretical implications as a result of the finding in this study.

It seems to suggest that the agency of human beings in creating wealth in every society does not only rely on human capital or capital stock but also the context and environment they live. For instance, human capital and capital stock in Table 4.9 below lose their significant impact on GDPPC when cultural variables are excluded in developed OLS2. On the contrary, human capital and capital stock in developing OLS3 model maintain significance impact though loses effect size when cultural variables are not included in the model. Therefore, definitions of human capital and the capital stock that exclude cultural aspect do not capture the real productivity of these variables. Hence, endogenous theory that puts human capital and capital stock at the center for propelling economic growth needs to extend definitions of these variables to include cultural values that impact productivity positively (Islam, 1995; Knight et al., 1992; King and Levine, 1994; Prescott, 1998; Bos et al., 2010).

In conclusion, the findings in this chapter raise issues on neo-classical assumptions of catching-up, multiplier effect, and accumulation causality. Also, definitions offered by the endogenous theory of human capital and capital stock. Hence, the omission by the neo-classic theory of other categories of variables partly fails to explain the income disparities among countries. This study investigated all the three categories of variables and confirmed that some cultural factors are significant to enhance economic growth while other factors hinder economic growth. Therefore, economic growths among countries are explained by different factors. In other words, there are no universal factors that always explain economic growth in all countries.

Table 4.9: Impact of human capital & capital stock without cultural variables

Dependent variable: GDPPC			
(1)	(2)	(3)	(4)
VARIABLES	OLS1 (combined)	OLS2 (developed)	OLS3 (developing)
TRADITIONAL			
EMP	5.7411 (38.9993)	-39.8755 (71.9275)	85.3465 (55.9383)
HDI	-1,293.1156 (1,091.2749)	9,952.0882*** (3,342.1892)	-5,470.1366** (2,101.2304)
IGS	-133.0162*** (28.6427)	-67.4508** (30.2189)	-145.2810*** (49.4450)
RKN	-2,321.1381*** (846.8314)	-435.5638 (877.7990)	-5,360.1286*** (2,023.4045)
TED	6.9237 (38.3047)	62.5913 (57.9354)	97.5433* (58.1160)
EGS	156.2245** (75.0188)	105.3276 (76.7300)	189.9279 (129.9049)
FDI	70.6076 (47.2404)	3.4397 (47.2667)	92.5479 (77.9917)
GCI	120.1731*** (30.7179)	324.1967*** (69.5369)	258.3398*** (60.3266)
GRS	68.7899** (28.6806)	70.5825 (46.3199)	60.2866 (43.0679)
ETR	15.3589 (9.4585)	49.4570*** (15.5275)	-10.7302 (14.6379)
INSTITUTIONAL			
ROL	-23.4592 (43.2205)	80.5453* (46.8924)	65.2231 (75.6411)
GEF	6,230.3897 (5,327.6198)	15,727.5770*** (5,839.7060)	23,724.7791* (13,216.7636)
Constant	29,398.8517*** (5,445.4978)	-25,713.3371* (12,989.5287)	35,004.7489*** (12,759.3207)
OBS	264	132	132
R2	0.2604	0.3264	0.3756
R2_A	0.225	0.259	0.313
DF_R	251	119	119
DF_M	12	12	12
F	7.364	4.806	5.965
p	0.0000	0.0000	0.0000

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

Notes. Cultural variables affect the performance of human capital and capital stock as noted in models OLS1, OLS2, and OLS3 models.

4.5 CONCLUSION

The research question addressed in this chapter is "do cultural variables influence economic development among countries? The findings in this chapter show that the performances of all the three categories of variables depend on the development level of the country. Hence, combining both developed and developing countries in research could lead to the bias of the results. It suggests that emphasis on the universal approach to enhance economic development among countries overlooks the effect of development levels of countries. Furthermore, this study notes that RKN levels in developing countries impede the flow of goods and services while RKN levels in developed countries propel the flow of goods and services (Aghion and Howitt, 1998). It seems to suggest that the wisdom of capital accumulation is not the critical determinant of economic development in developing countries. Also, the catch-up assumption seems to work in developed countries other than in developing countries.

For this reason, the utilization capacity as claimed by Commendatore et al. (2014), is vital to keep RKN levels and maintain or increase the flow of goods and services in both developed and developing countries. For example, Neuayer (2001) suggested that depreciation of both manufactured and natural capital in developing countries is higher than investment, hence unsustainability of economic development in developing countries. The findings as discussed in section 4.4.4.3 above suggest that developing countries experience underdevelopment due to lack of the responsibility of individuals. In other words, individuals' responsibility, rather than perceiving that it is the government's responsibility for the welfare of individuals and their societies, enhances economic growth. In so doing people become self-reliant and pursue things that will make their societies poverty free.

Also, the discussion in section 4.4.4.5 above points out that religion derails development in developing countries. Religion seems to provide the context where habits, customs, and education direct the behaviors of people (Guiso et al., 2009; Smith, 1776). Additionally, religion is highly correlated with obedience. Graph 3 in Figure 4.16 above illustrates this mainly in developing countries. So according to Mathers and Williamson (2011) obedience or religion captured in the concept of culture limits freedom which is a necessary component for enhancing economic development. Likewise, some social scientists have negatively connected Catholicism to economic development (Harrison, 1985; Morsc, 1964). It seems to agree with Branco (2007) who pointed out that profound influence of secularism in countries where religious life is a status quo fail to boost economic development. Different societies embrace social norms that influence people's behaviors and choices, hence, influencing outcomes of the whole society.

The upshot of the findings reported above about the hypotheses discussed in sub-section 3.2.2 in chapter 3, can be condensed in the statement that most of the variables in the traditional category are more significant in developed countries than in developing countries. On the other hand, cultural category variables have a more significant effect size in developing countries than in developed countries. The effect sizes of variables differ regarding size and whether negative or positive. Lastly, the variables in the institutional category were more critical in developed than in developing countries. For more details see the results and discussion sections (4.3 and 4.4) above.

Therefore, the findings articulated above are crucially essential to enhance economic growth in developing countries. Hence, the investigation of all the three categories of variables exposes the shortfalls of traditional economic theories towards explaining income disparities among countries. Is the finding that cultural category

variables more critical in developing countries representative to all developing countries? Hence, taking into considering the limited sample of countries engaged in this chapter, this finding necessitates further investigation by engaging more countries in the developing group particularly from the SSC region. Hence, further examination will be made in chapter 5 designed to follow-up the findings in this chapter. There are remarkable differences between the two chapters. For example, cultural variables in this chapter were sourced from WVS that is not consistent in many developing countries.

In contrast, chapter 5 uses AS data as the source of cultural variables while traditional and institutional variables' sources remain the same in both chapters. For this reason, the focus of chapter 5 will be developing countries to find out whether the findings above could be repeated. Therefore, increasing the number of countries with the different cultural data source that is specially designed for African context is more appealing. The insights from the next chapter and this chapter could explain why this region is lagging behind compared to other regions of the world concerning economic growth.

CHAPTER 5: ECONOMIC GROWTH IN 18 SUB-SAHARAN COUNTRIES

5.1 INTRODUCTION

The widening gap between income levels between developed and developing countries as discussed in chapter 1 exposes the inconsistency in economic theory in explaining economic growth disparities among countries. Table 5.2 below shows that developed and developing countries seem to have different variables relevant to economic growth. The results indicate differences in the importance of variables between developed and developing countries and also slow and fast-growing countries. Table 5.2 discloses that most of the variables in the traditional category are very relevant for economic growth in developed countries. In contrast, most of the variables in the cultural category are very relevant for economic growth in developing countries. However, the question is “are the results representative to developing countries in Africa?” Despite, following necessary procedures in sampling six developing countries in chapter 4 section 4.2, its difficult to explain the problem of the countries being outliers to other developing countries in the continent. Therefore, this chapter engages a larger sample to repeat the investigation executed in chapter 4. In addressing the possible problem of 6 developing countries being outliers, this chapter engages countries in the Sub-Saharan region with cultural variables data consistently

collected from Afrobarometer Surveys (AS). These countries were chosen randomly with the criteria that at least 3 waves of AS were consistently collected.

Table 5.1 below provides a list of countries in the Sub-Saharan region. However, the countries which were randomly chosen and met the criteria of cultural category data source were reduced to 18.

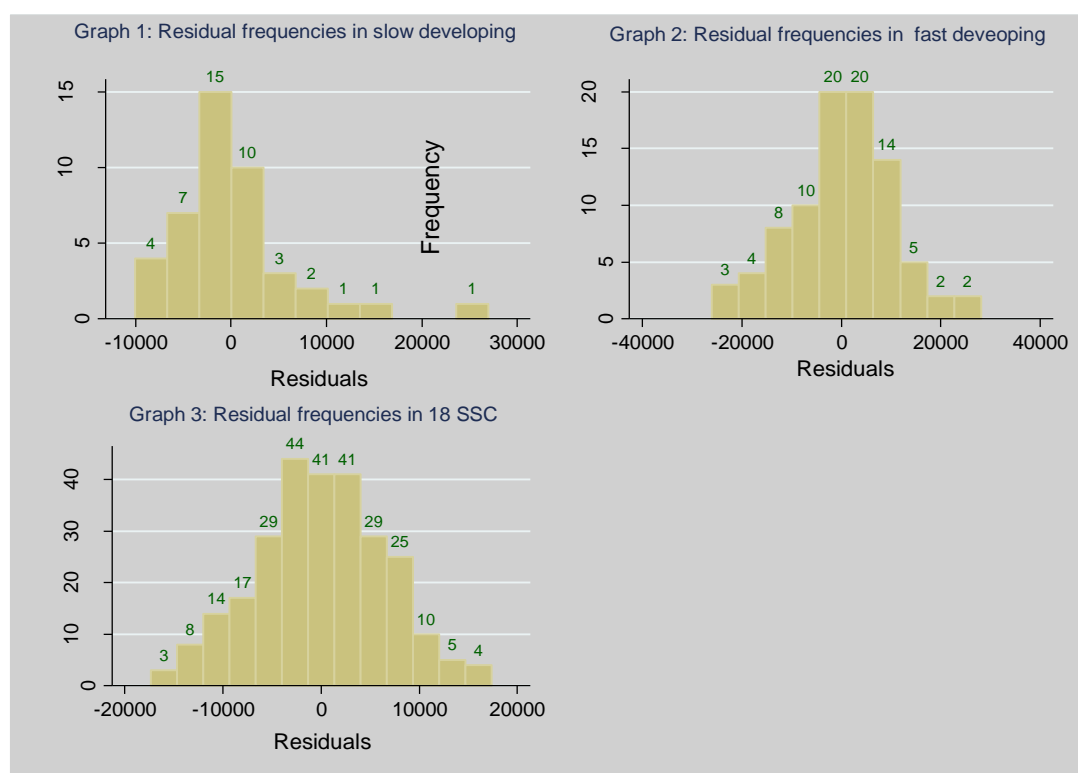
Table 5.1: List of Sub-Saharan African Countries

Sub-Saharan Countries (SSC)	Angola Benin Botswana Burkina Faso Burundi Cameroon Cape Verde Central African Republic Chad Comoros Congo (Brazzaville) Congo (Democratic Republic) Côte d'Ivoire Djibouti Equatorial Guinea Eritrea Ethiopia Gabon The Gambia Ghana Guinea Guinea-Bissau Kenya Lesotho Liberia Madagascar Malawi Mali Mauritania Mauritius Mozambique Namibia Niger Nigeria Réunion Rwanda Sao Tome and Principe Senegal Seychelles Sierra Leone Somalia South Africa Sudan Swaziland Tanzania Togo Uganda Western Sahara Zambia Zimbabwe
18 SSC sampled	Benin, Kenya, Lesotho, Madagascar, Malawi, Namibia, Senegal, South Africa, Tanzania, and Zimbabwe. Botswana, Cape Verde, Ghana, Mali, Mozambique, Nigeria, Uganda, and Zambia

Notes. Countries highlighted in green were part of developing countries sample in chapter 4

The goal to find whether cultural variables in this chapter will significantly impact on GDP per capita (GDPPC) the study utilizes the most similar method (Anckar, 2008; Meckstroth, 1975). The method assumes that the characteristics of the countries regarding geography and history are similar and also similar on all the independent variables involved in the analysis except the category of independent variables of interest (Seawright and Gerring, 2008, p. 304). Moreover, all the countries involved are in the same SSC region that remains the least developed region in the world (Malamud and Assane, 2013). Figure 5.1 below shows the three groups of countries regarding how they perform economically under the same conditions.

Figure 5.1 Residual frequencies in Slow and fast developing and 18 SSC



Notes. The figure shows how far the observed values of GDPPC are far away from the observed values.

Graph 1 in Figure 5.1 (Slow developing countries) above shows 26 observations below the regression line while only 18 above the expected line. Graph 2 same figure (Fast-developing countries) has 43 observations below and 45 observations above. Graph 3 has 136 observations under regression line and 134 above regression line. The figure seems to suggest similarities regarding economic performance among the countries in this region under the model conditions specified in this study.

Henceforth, the purpose of this chapter is to follow up on the findings in the chapter, four particularly for the developing countries. The catching-up effect and accumulation of capital through foreign aid seem not to work in this region as noted by (Islam, 1995; Knight et al., 1992). For this reason, the investigation involves three categories of variables as indicated in Table 3.2 in chapter 3. All analyses were empirically carried out using panel data and the Ordinary Least Squares (OLS) method on 18 SSC for the period 2001 to 2015. Lastly, the organization of the chapter is as follows: 5.1 is an introduction to the chapter; 5.2 results reporting, 5.3 discussions, and section 5.4 as the conclusion. The next section reports the results.

Table 5.2: Importance of variables on economic growth in OLS2, OLS3, SlowOLS3, and FastOLS3 models

Dependent Variable: GDPPC												
OLS2 (developed)				OLS3 (developing)			SlowOLS3 (developing)			FastOLS3 developing)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Rank	Independent Variables	Standardized Coefficients	Eta^ (%)	Independent Variables	Standardized Coefficients	Eta^ (%)	Independent Variables	Standardized coefficient	Eta^ (%)	Independent Variables	Standardized Coefficient	Eta^ (%)
1	GCI***	0.79	14.55	GCI***	0.81	18.1	GCI***	2.10	34.5	GCI***	0.75	18.00
2	REG**	0.44	3.43	FER***	0.31	4.79	REG	0.23	0.53	GEF***	0.61	13.18
3	GEF***	0.41	6.39	GEF***	0.27	4.94	SOC	0.18	0.97	REG	0.30	0.41
4	HDI***	0.34	5.03	SOC**	0.24	2.42	FDI	0.14	1.10	FER	0.28	3.08
5	ETR***	0.33	6.16	CPR	0.21	0.77	ROL	0.14	0.38	FDI***	0.25	5.13
6	RKN*	0.32	1.57	TED*	0.12	1.23	TED	0.08	0.17	EGS*	0.25	1.96
7	CPR***	0.30	5.53	FDI	0.12	1.17	EMP	0.06	0.19	CPR	0.21	0.21
8	TED*	0.21	1.88	EMP	0.08	0.49	TED	0.00	0.18	SOC	0.20	1.58
9	GRS	0.16	0.76	ROL	0.07	0.28	HDI	0.03	0.03	RKN	0.17	0.18
10	ROL	0.13	1.21	EGS	0.01	0.01	EGS	0.02	0.01	EMP	0.03	0.05
11	HWK	0.12	0.89	GRS	0.01	0.01	IGS	-0.04	0.01	TED	0.00	0.00
12	EGS	0.11	0.40	HDI	-0.00	0.00	GRS	-0.09	0.17	ETR	0.00	0.00
13	FDI	-0.00	0.00	IGS	-0.05	0.10	HWK	-0.10	0.25	HDI	-0.02	0.00
14	EMP	-0.06	0.10	ETR	-0.07	0.25	GEF	-0.17	0.76	GRS	-0.05	0.14
15	SOC	-0.06	0.23	HWK	-0.14	0.84	ETR	-0.23	0.70	ROL	-0.07	0.30
16	FER	-0.09	0.30	REG***	-0.53	3.62	FER	-0.30	0.93	HWK	-0.10	0.41
17	IGS*	-0.24	1.96	RKN***	-0.70	5.28	RKN***	-1.29	6.78	IGS**	-0.28	2.98

Notes. Variables shaded in green colour indicates relevance for economic growth in each model. On the contrary, variables in yellow color show not relevant for economic growth in each model.

5.1.1 Fast and slow growth countries

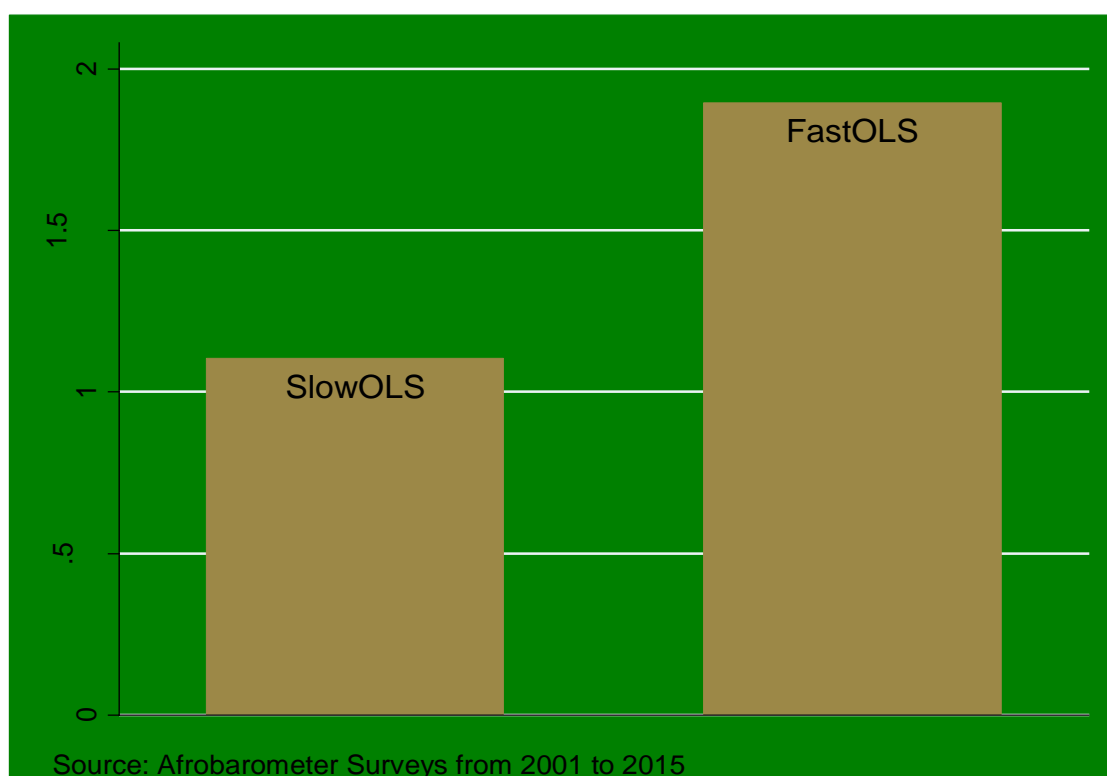
This section clarifies grouping of 18 Sub-Saharan countries (SSC) in OLS1SSC model into FastOLS1SSC and SlowOLS1SSC growth economies by using average Real GDP per capita annual growth (RGDPPCG) rates as a proxy for average economic growth rates over the period from 2000 to 2015 as demonstrated in Table 5.4 below. Dion (1998, p. 127) argues that a range of a dependent variable can be explained by the conditions of the phenomenon taking place in the context. After that, using the method of most similar as discussed above, the selection of cases (FastOLS1SSC) / SlowOLS1SSC) can be based on the value of a dependent variable (Mill, 1868 cited in Dion, 1998). For this reason, the mean of GDPPCG became a cutting point whether a country belongs to slow or fast growth in both models (FastOLS1SSC and SlowOLS1SSC) models. That seems to imply that any value of GDPPCG from 0 to mean of GDPPCG in OLS1SSC model was categorized SlowOLS1SSC model while any value above was a classified FastOLS1SSC model. The rationale for grouping countries into slow and fast sub-groups is to find out if the performance of the variables in respective categories varies with the status of economic growth in the countries. It would help to identify which category of variables seem to provide robust support for economic growth over time in each sub-group of the countries. The countries RGDPPCG rates below 1.2% are grouped as SlowOLS1SSC model while those above are a FastOLS1SSC model. See Table 5.3 and Figure 5.2 below.

Table 5.3: Countries in each model of real GDPPC annual growth

Growth group	Countries
SlowOLS1SSC model	Benin, Kenya, Lesotho, Madagascar, Malawi, Namibia, Senegal, South Africa, Tanzania, and Zimbabwe.
FastOLS1SSC model	Botswana, Cape Verde, Ghana, Mali, Mozambique, Nigeria, Uganda, and Zambia

Notes. There are ten countries in SlowOLS1SSC model while the FastOLS1SSC model has eight countries.

Figure 5.2: Levels of GDPPCG in SlowOLS1SSC and FastOLS1SSC models



Notes. The figure shows the mean of GDP annual growth for ten slow and eight fast-growing economies during the period from 2001 to 2015.

5.2 RESULTS

This section presents the empirical results of the investigation of how economic, institution and cultural variables influence economic development differently in SSC. Nevertheless, the main aim is to find out if cultural variables hinder or enhance economic development in Sub-Saharan countries. To achieve this, estimation model used the production function of the form:

$$Y = AK^{\alpha}(Lh)^{1-\alpha} \dots \dots \dots (1)$$

Y = income output, **K** = physical capital, **L** = unskilled labor, **H** = human capital, **A** denoted **TFP** interpreted as social infrastructure, social capability, social capital, technology progress, ignorance. See more details in chapter 2 section 2.6 and chapter 3 section 3.4.1. The next section will report the results in categories of variables indicated in Table 5.4 below.

5.2.1 Empirical findings

Table 5.4 below shows four models namely: OLS1SSC, Random, IVREG2, and GLS. Models such as Random, IVREG2, and GLS are used to check the validity of the OLS1SSC model. These models' results are not very different from the

OLS1SSC model; hence, the problem of correlations among independent variables is checked. Therefore, the discussion of the results will be largely limited to the OLS1SSC model. The p-value for the OLS1SSC model in Table 5.4 below is 0.000, and its R-squared is 28%. The variables in Table 5.4 below are compared to each other regarding contribution to GDPPC. However, comparison of the significance of variables can be tricky due to differences in measurement units of the variables. For this purpose, standardized coefficients are used to compare the variables' contribution to GDPPC as illustrated in Table 5.4 below. For more information on checking the OLS1SSC model for this chapter see chapter 3 sub-section 3.5.2. Furthermore, variables ranked in Table 5.5 according to the standardized coefficients magnitude in contribution to GDPPC. All confidential interval ranges below are reported at a 95% confidence interval level.

Table 5.4: Independent Variables and their impact on GDP per capita

Dependent Variable: GDPPC				
(1)	(2)	(3)	(4)	(5)
VARIABLES	OLS1SSC	Random	IVREG2	GLS
Traditional				
EMP	-0.0164 (0.1331)	-0.0164 (0.1331)	-0.0164 (0.1629)	0.0888 (0.1253)
HDI	-0.0216** (0.0107)	-0.0216** (0.0107)	-0.0216* (0.0119)	0.0041 (0.0087)
IGS	76.8200** (38.1403)	76.8200** (38.1403)	76.8200 (46.8181)	-4.5534 (22.3190)
RKN	-0.0293** (0.0149)	-0.0293** (0.0149)	-0.0293 (0.0260)	0.0424* (0.0232)
HCT	33.9346** (14.3161)	33.9346** (14.3161)	33.9346** (16.7716)	38.6322*** (14.0870)
EGS	0.1319* (0.0728)	0.1319* (0.0728)	0.1319 (0.0970)	0.0512 (0.0491)
AID	-0.1862*** (0.0716)	-0.1862*** (0.0716)	-0.1862*** (0.0679)	-0.0755*** (0.0280)
GCI	0.1076** (0.0489)	0.1076** (0.0489)	0.1076* (0.0581)	0.0404 (0.0328)
GRS	0.0403 (0.0533)	0.0403 (0.0533)	0.0403 (0.0608)	0.0231 (0.0252)
ETR	-5.5920* (3.1097)	-5.5920* (3.1097)	-5.5920 (5.3014)	-1.7402 (3.1368)
Institutional				
ROL	0.0836* (0.0441)	0.0836* (0.0441)	0.0836 (0.0540)	0.0015 (0.0369)
GEF	-6.3771*** (2.1119)	-6.3771*** (2.1119)	-6.3771*** (2.4035)	-0.8667 (1.0155)
COC	-130.4326*** (49.1160)	-130.4326*** (49.1160)	-130.4326** (52.6589)	-117.5427*** (29.9373)
Cultural				
CPR	-22.1926*** (5.2051)	-22.1926*** (5.2051)	-22.1926*** (6.5977)	-12.2566*** (3.7783)
SOC	11.9876* (7.1377)	11.9876* (7.1377)	11.9876 (8.0374)	7.4713* (4.5108)
REG	11.8196 (8.5169)	11.8196 (8.5169)	11.8196*** (4.2202)	3.2874 (3.2472)
SEC	55.1315*** (13.2460)	55.1315*** (13.2460)	55.1315*** (16.5565)	37.3099*** (9.1180)
Constant	158.2456*** (54.8223)	158.2456*** (54.8223)	158.2456*** (57.2489)	77.4722** (39.1000)
OBS	270	270	270	270
R2	0.2799		0.2799	
R2_A	0.231	.	0.231	.
DF_R	252	.	252	.
DF_M	17	17	17	.
F	5.763	.	6.975	.
p	0	0	0	.
Number of Countries	18	18	18	18

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

Notes. Column 2 shows the OLS1SSC model while Columns 3 to 5 shows Random, IVREG2, and GLS models to check the estimates of the OLS1SSC model.

Table 5.5: Variables' effect size⁴³ on GDPPC in OLS1SSC model

Dependent variable: GDPPC					
(1)	(2)	(3)	(4)	(5)	(6)
Rank	Independent variables	Standardized coefficients	ETA ⁴⁴ %	t-test	P - value
1	SEC **	0.54	4.95	4.16	0.000
2	GCI **	0.18	1.38	2.20	0.029
3	HCT **	0.18	1.61	2.37	0.019
4	IGS*	0.15	1.16	2.01	0.045
5	EGS*	0.14	0.94	1.81	0.071
6	ROL*	0.14	1.03	1.90	0.059
7	SOC*	0.14	0.81	1.68	0.094
8	REG	0.09	0.55	1.39	0.166
9	GRS	0.04	0.16	0.76	0.450
10	EMP	-0.01	0.00	-0.12	0.902
11	HDI**	-0.12	1.16	-2.01	0.045
12	ETR*	-0.13	0.92	-1.80	0.073
13	AID***	-0.14	1.93	-2.60	0.010
14	RKN**	-0.15	1.11	-1.97	0.050
15	COC***	-0.20	2.02	-2.66	0.008
16	GEF***	-0.22	2.61	-3.02	0.003
17	CPR ***	-0.62	5.19	-4.26	0.000

Notes. Significant levels *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Columns 1 to 6 shows variables' ranking, independent variables, Standardized coefficients, Eta%, t-tests, and p-values respectively.

5.2.2 Traditional category

Table 5.4 above shows HCT ranked 3rd out of 17 variables in Table 5.5 above and it is measured in years (Barro and Lee, 2013). The confidence interval ranges from 5.74 to 62.13, and its p-value is 0.019 which is less than 90% significance level threshold. Further exploration in Table 5.6 below indicates that HCT significantly enhances GDPPC in SlowOLS1SSC model while in FastOLS1SSC model insignificantly impacts GDPPC. The standardized coefficients of HCT in Table 5.6 for SlowOLS1SSC and FastOLS1SSC models are 0.38 and 0.14 respectively. It seems to suggest that the impact of HCT is higher in slow growth than in fast-growth countries.

Furthermore, column 4 in the same table in SlowOLS1SSC and FastOLS1SSC models shows that the contribution of employment in slow growth countries is 0.17% compared to only 0.02% in fast-growth countries. Figure 5.3 below shows that HCT levels are slightly higher in fast-growth countries than in slow growth countries. Nonetheless, the impact of HCT is higher in slow growth countries than in fast-growth countries. That appears to agree with the employment findings explained above whereby employment is more effective in slow growth countries than in fast-

An effect size is a standardized measure of the magnitude of an observed effect. It is the measure of the net effect of a particular variable in this model (context).

⁴⁴ Effect size of less than 1 % is considered small; between (1 to 10 %) is considered medium; more than 10 % is considered large.

growth countries. The reasons why will be discussed in section 5.3 below. The next variable to be reported under the traditional category is EGS.

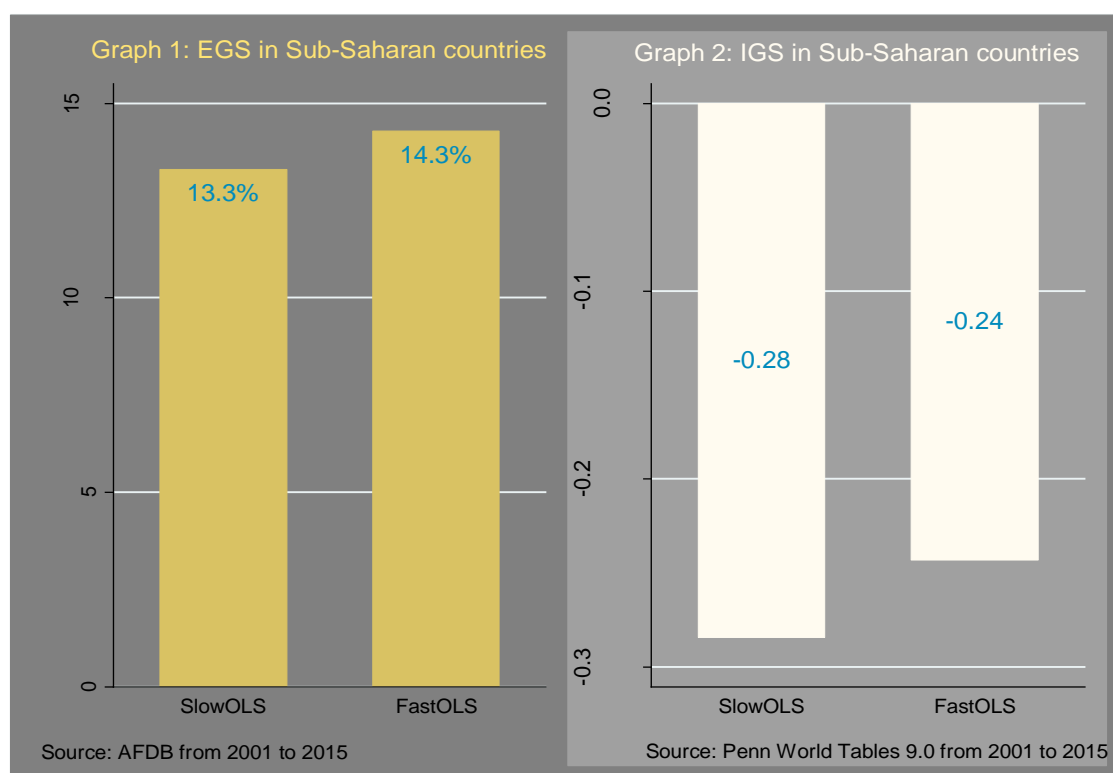
Figure 5.3. Levels of HCT in slow and fast growth countries



Notes. Human capital measured concerning years in education, the higher the number of years the more educated are the people.

EGS in Table 5.4 above significantly contributes to GDPPC. Its confidence interval ranges from -0.01 to 0.28 and its p-value is 0.071 which is less than 90% significance threshold level. Further analysis in Table 5.6 below shows that EGS impacts on GDPPCG significantly in SlowOLS1SSC model while in FastOLS1SSC model insignificantly contributes to GDPPCG. In contrast, graph 1 in Figure 5.4 below shows that EGS as a percentage to GDP is higher in the FastOLS1SSC model than the SlowOLS1SSC model. It seems to suggest that EGS has a higher impact in slow growth countries than fast-growth countries. Captivatingly, IGS significantly contributes to GDPPC in Table 5.4 above contrary to literature expectations whereby imports are expected to decrease economic growth other than increase. Nevertheless, graph 2 in Figure 5.4 below indicates very low imports in the SSC region, which seems to suggest that low imports have a positive impact on economic growth. Having looked at exports and imports, the next variable to be reported is GCI in the next paragraph.

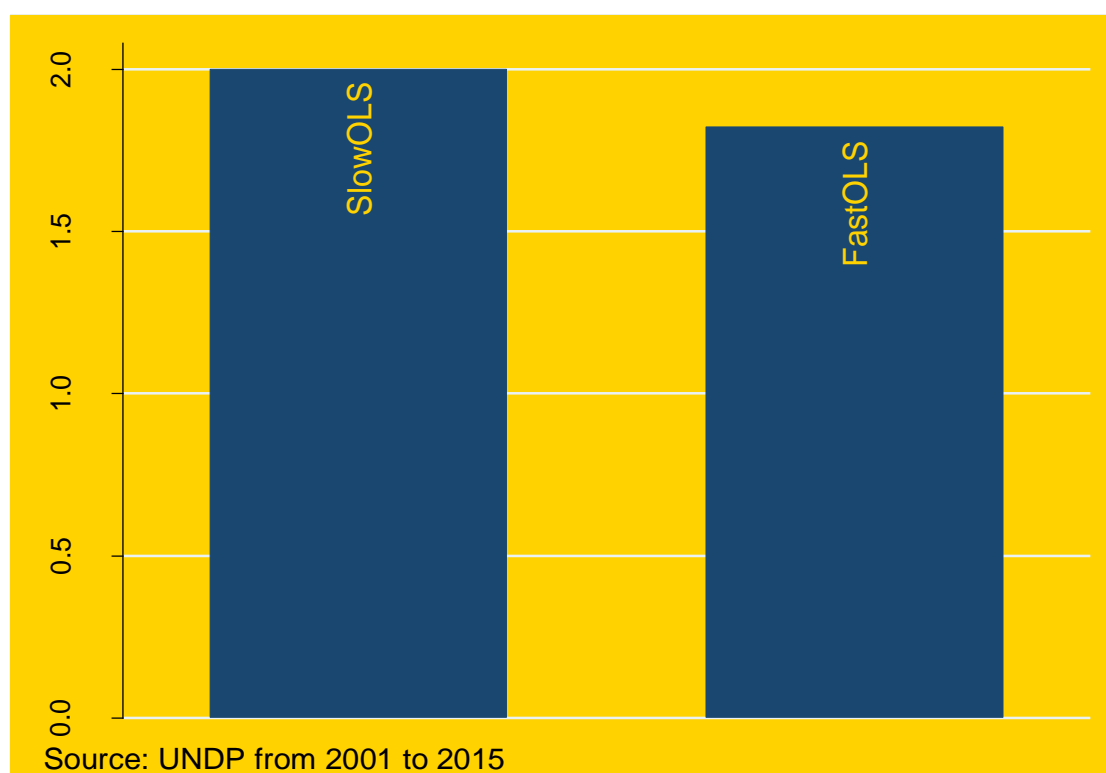
Figure 5.4: Levels of exports and imports in Sub-Saharan countries



Notes. Graph 1 indicates exports while graph 2 imports.

GCI contributes significantly to GDPPC as shown in Table 5.4 above. The confidence interval ranges from 0.01 to 0.20 and has a p-value of 0.029 less than 90% significance level threshold. GCI in Table 5.5 above is ranked 2nd regarding its relative impact on GDPPC over 15 years period. GCI concept attempts to quantify the impact of some critical factors which contribute to creating the conditions for competitiveness, with a particular focus on the macroeconomic environment, the quality of the country's institutions, and the state of the country's technology and supporting infrastructure. GCI in Table 5.6 below insignificantly contributed to GDPPCG in both SlowOLS1SSC and FastOLS1SSC models. However, GCI impact on GDPPCG in a 15-year period is higher in fast-growth countries than slow growth countries as indicated in columns (4) of Table 5.6 below respectively. It seems to contradict Figure 5.5 below whereby GCI levels are higher in SlowOLS1SSC model than the FastOLS1SSC model. For further discussion of GCI see section 5.3 below. Intriguingly, some factors in GCI formation such as technology and infrastructure can proxy as RKN. Hence, the next paragraph will report the performance of RKN in Table 5.4 above.

Figure 5.5: GCI levels in slow and fast growth countries

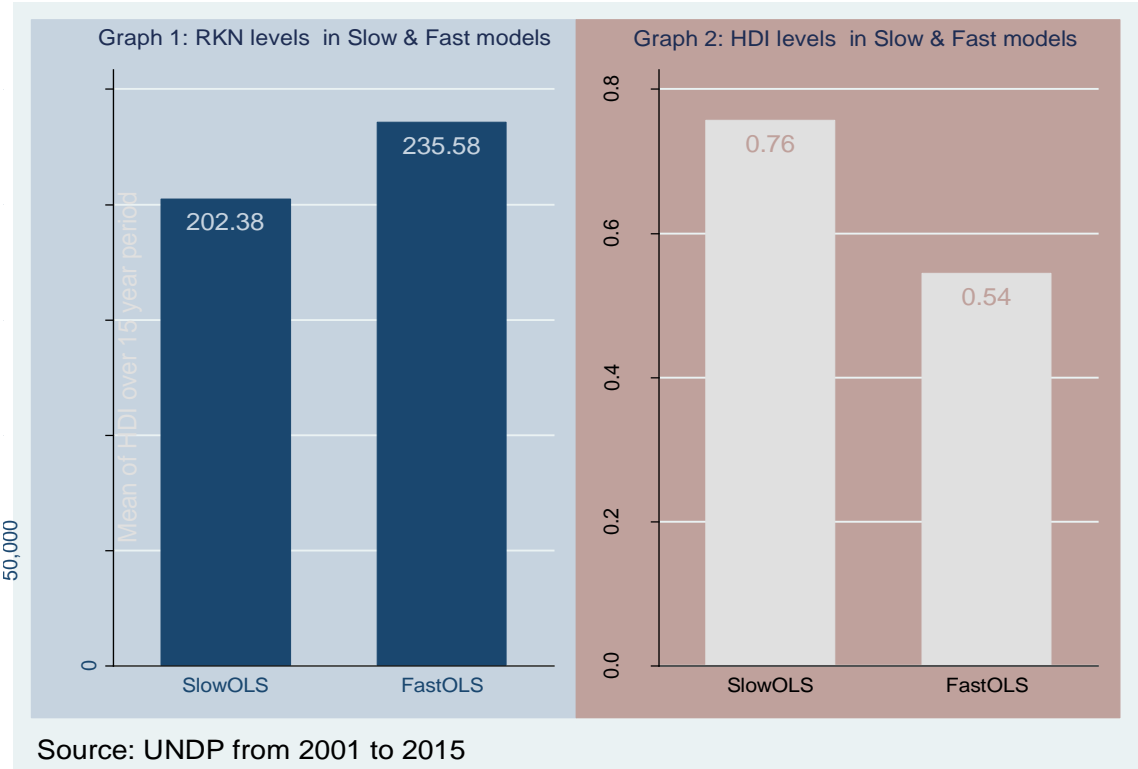


Notes. GCI evaluates the productivity and efficiency of countries ranging from 1 to 7, 1 being the lowest and 7 the highest.

RKN levels in literature are expected to determine the capacity to increase the flow of goods and services (Ekins et al., 2003). However, Tables 5.4 above indicate that RKN significantly reduces GDPPC in Sub-Saharan countries. The confidence interval of RKN ranges from -0.06 to -0.00 and its p-value is 0.050 less than a 90% threshold of significance level. Further examination in Table 5.6 below indicates that RKN significantly reduces GDPPCG in SlowOLS1SSC model. In contrast, in the FastOLS1SSC model, RKN insignificantly reduces GDPPCG. The reduction impact on GDPPCG in SlowOLS1SSC model is 383 times more than in the FastOLS1SSC model. Graph 1 in Figure 5.6 below seems to confirm RKN these findings whereby fast growth countries have higher levels of RKN than slow growth countries. The other variables in this category that reduce GDPPC significantly are HDI, AID, and ETR as indicated in Table 5.4 above. HDI in Table 5.4 above significantly reduces GDPPC. Its confidence interval ranges from -0.04 to -0.00 and its p-value is 0.045 less than 90% significance level threshold. The impact of HDI on GDPPC differs with economic growth status in SSC. For instance, HDI insignificantly enhances GDPPCG in SlowOLS1SSC model while in FastOLS1SSC model significantly reduces GDPPCG as indicated in Table 5.6 below. However, the impact of HDI on GDPPCG in

SlowOLS1SSC model is about four times less than the impact of RKN in SlowOLS1SSC model as indicated in columns (4) in Table 5.6 below. Graph 2 in Figure 5.6 below shows that slow growth countries in SSC have higher levels of HDI than fast-growth countries. Therefore, grouping countries together as illustrated in Tables 5.4 and 5.5 above may miss out explaining the differences in economic growth among countries in the same region. That seems to agree with the findings discussed in section 4.4 in chapter 4 whereby the performance of variables dramatically differs in developed and developing countries.

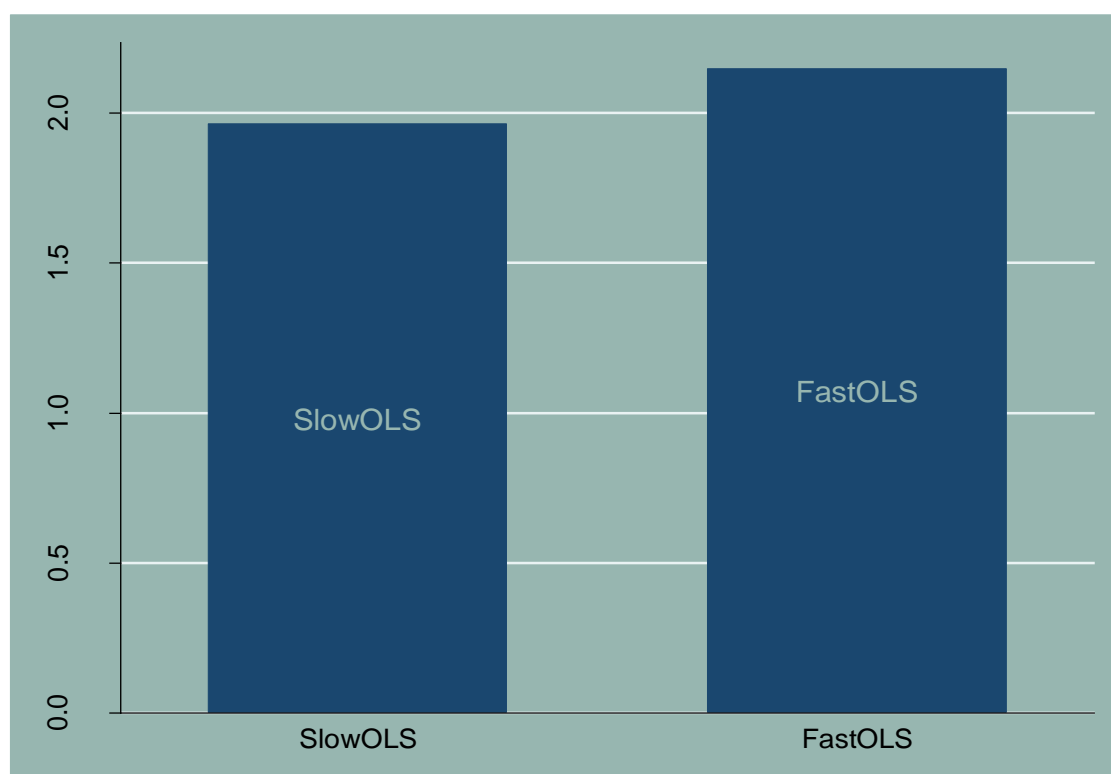
Figure 5.6: RKN and HDI levels in Slow and Fast growth models



Notes. Graph 1 shows RKN levels while graph 2 indicates HDI levels in slow and fast-growing countries.

Another variable in this category that significantly reduces GDPPC in Sub-Saharan countries is ETR. Its p-value is 0.073 which is less than 90% significance threshold level. The confidence interval range of ETR is from -11.72 to 0.53. Further exploration in Table 5.6 below indicates that ETR significantly reduces GDPPCG in the FastOLS1SSC model while insignificantly promotes GDPPC in SlowOLS1SSC model. However, Figure 5.6 below shows that levels of ETR are higher in fast-growth countries than slow growth countries.

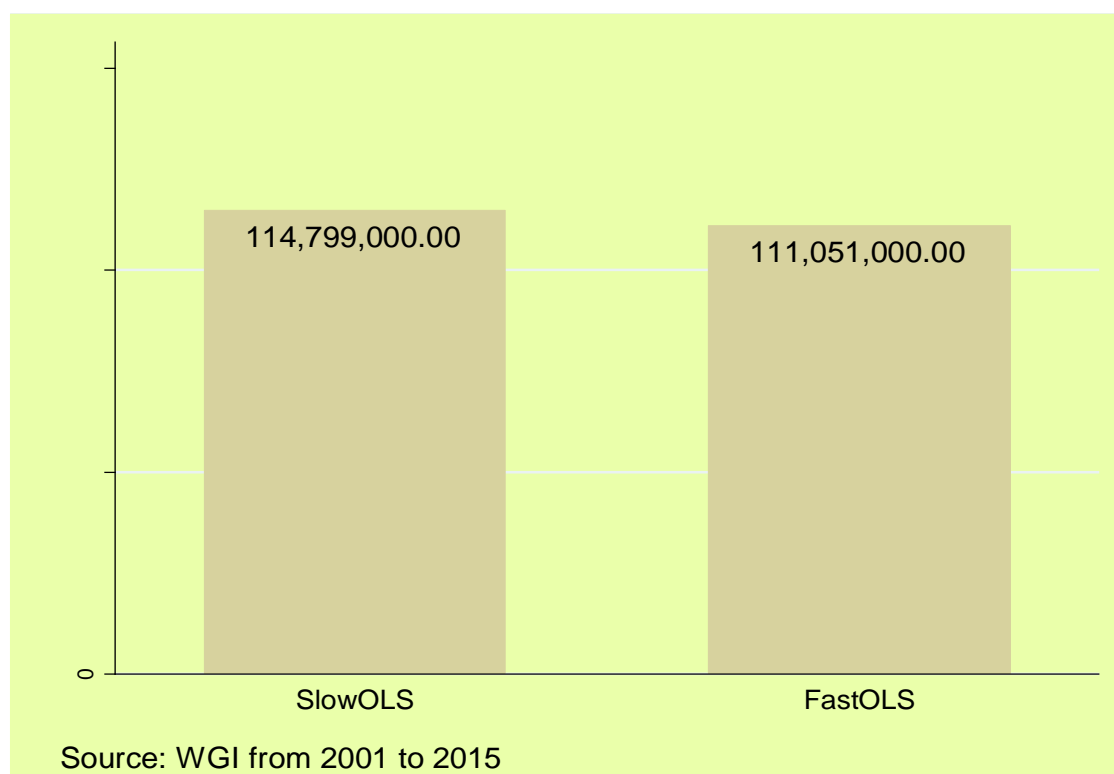
Figure 5.7: Levels of ETR in Sub-Saharan countries



Notes. New business registrations per 1,000 people are higher in Fast growth countries than slow growth countries.

Also, AID in this category significantly and negatively impacts on GDPPC as demonstrated in Table 5.4 above. The confidence interval range is from -0.33 to -0.05 and its p-value is 0.010 less than 90% significance threshold level. Further exploration in Table 5.6 below shows that AID significantly reduces GDPPCG in SlowOLS1SSC model while in FastOLS1SSC model insignificantly reduces growth. Column (4) in Table 5.7 below demonstrates that the effect size of AID for GDPPCG is two times more in slow growth countries than in fast-growth countries. Nonetheless, Figure 5.7 below indicates that more AID is given to slow growth countries than fast-growth countries.

Figure 5.8: Comparison of AID levels in slow and fast growth countries



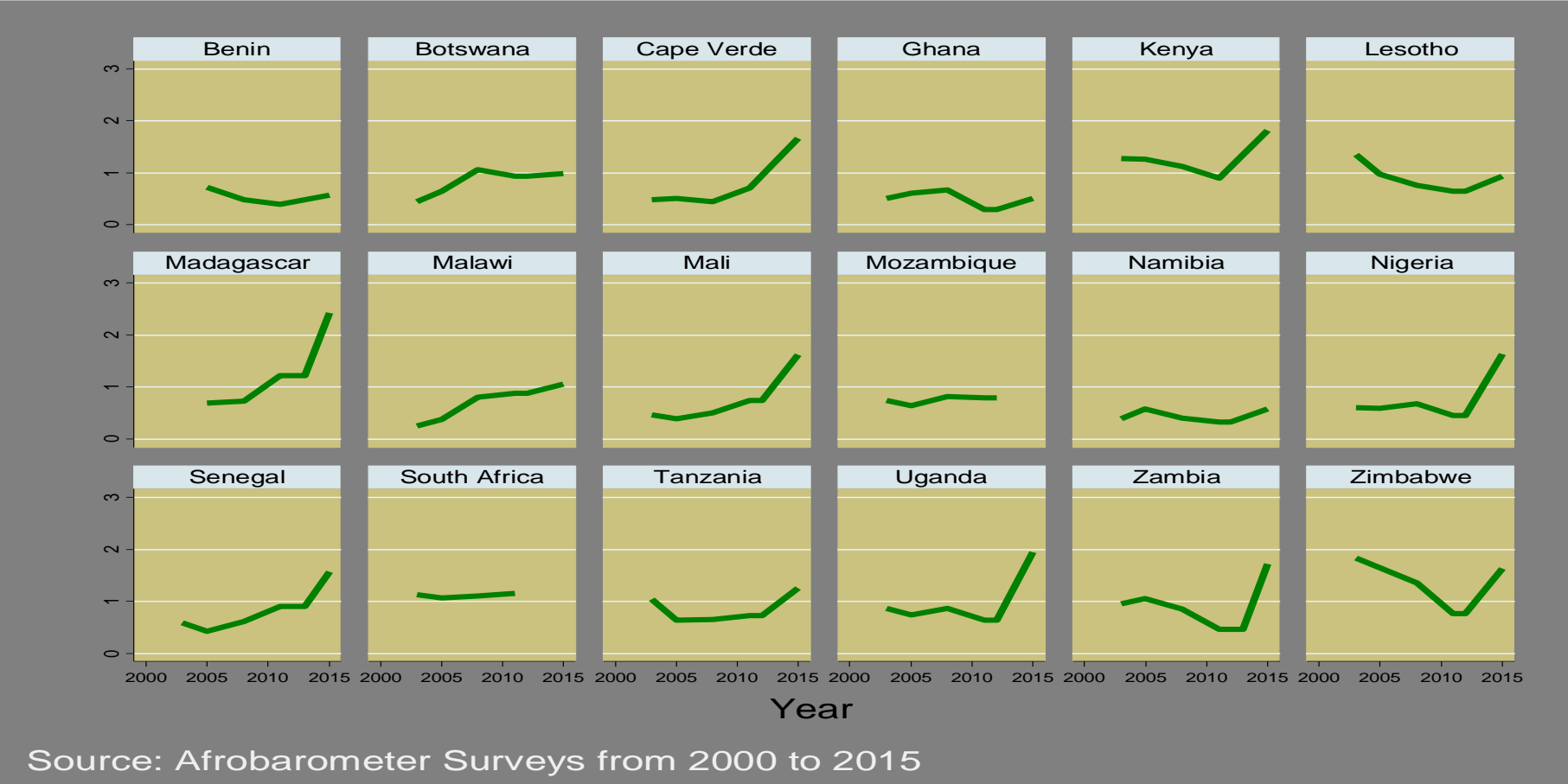
Notes. AID levels are slightly higher in slow growth countries than in fast-growth countries.

All in all, in this category according to Table 5.5 above, variables ordered from 2 to 5 significantly contributes to GDPPC while the variables placed from 11 to 14 significantly reduces GDPPC. On the other hand, further examination in Table 5.6 below shows that many variables in both SlowOLS1SSC and FastOLS1SSC models insignificantly impact on GDPPCG. Having reported the different impact of variables in Tables 5.4, 5.5, 5.6, and 5.7 in the traditional category, the next category to be reported is a cultural category.

5.2.3 Cultural category

The confidence interval that has the real value of SEC contribution to GDPPC ranges from 29.04 to 81.22 US dollars over the period from 2001 to 2015. Its p-value is 0.000 which is less than 90% significance level threshold. Even though the findings show that the SEC is positively and significantly related to GDPPC in the SSC region, the opposite is true. Further investigation of data shows that the coding of variables ranged from 0 to 4, where 0 denoted no SEC fear or want while anything above 0 denoted presence of fear or want. Figure 5.9 below shows the SEC index where any number above zero indicates the presence of insecurity of the participants. In all the countries represented in Figure 5.9 below. The degree of insecurity among participants differs from country to country as demonstrated in Figure 5.9 below.

Figure 5.9: Fear of crime in Sub-Saharan countries

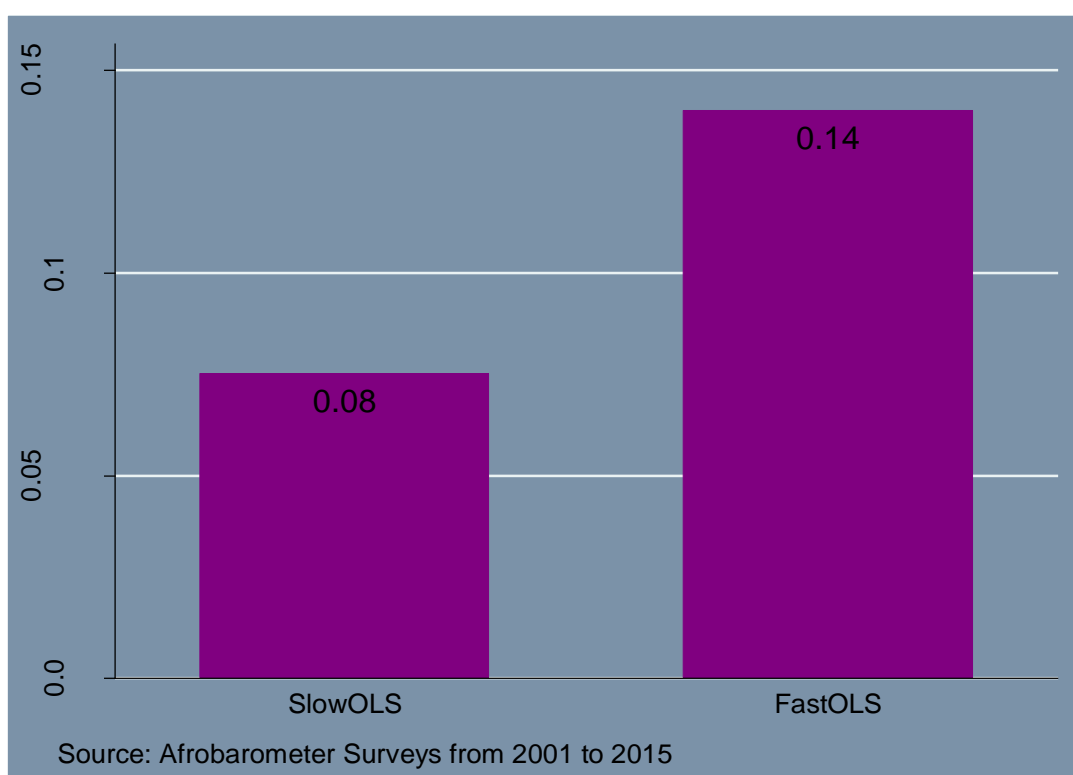


Notes. 0 score means no concern or fear of crime while scores above 0 indicate concern or fear of crime.

However, the effect of SEC on GDPPCG may differ among countries in the same region depending on economic growth status. It is demonstrated in Tables 5.6 and 5.7 below. For instance, in Table 5.6 SEC significantly impacts to GDPPCG in SlowOLS1SSC model, while in FastOLS1SSC model SEC insignificantly impacted GDPPCG. However, due to reverse coding as explained above SEC significantly reduces GDPPCG in slow growth countries while in fast-growth countries security insignificantly reduces GDPPCG. It seems to suggest that SEC reduces GDPPCG 53 times more in slow growth countries than in fast-growing countries as illustrated in columns (4) in Table 5.7 below. Hence, the severity of SEC on GDPPCG is worse in slow growth countries than in fast-growth countries.

While in the cultural category, Table 5.4 above also shows that SOC significantly contributes to GDPPC in the 18 SSC. The confidence interval for SOC ranges from -2.07 to 26.04 and its p-value is 0.094 less than the significance level of 90% threshold. Also, SOC performs differently in slow and fast-growing countries in Tables 5.6 and 5.7 below. For instance, SOC positively and significantly influences GDPPCG in SlowOLS1SSC model while in FastOLS1SSC model insignificantly contributes to GDPPC. That seems contradictory to further investigation in Figure 5.10 below which shows that SOC level in slow growth countries is less than in the fast-growing countries. SOC significantly contributes to GDPPCG in slow than fast-growing countries. Why?

Figure 5.10: Levels of SOC in slow and fast growth countries



Notes. The mean of SOC index is higher in the FastOLS1SSC model than in SlowOLS1SSC model.

Even though SOC positively influences GDPPC, its significance concerning contribution seems to depend on other factors in the countries. That is demonstrated by the fact that fast growth countries have higher levels of SOC than slow growth countries, yet SOC significantly impacts in slow growth countries. Furthermore, Table 5.7 below shows relative contributions of each variable to GDPPC. For instance, SOC contributes to GDPPCG in SlowOLS1SSC model 3 times more than in the FastOLS1SSC model. The differences in SOC contribution to GDPPC is explained in different ways in the literature (Dinda, 2008; North, 1990; Schleifer and Vishny, 1993). However, in this section further examination is done on how SOC relates to CPR, SEC, and democracy.

5.2.3.1 Relationship of SOC, CPR, SEC, and democracy

Figure 5.11 below seems to show CPR playing a significant role in shaping SEC and SOC in the countries in this region. For example, most of the countries in the region from 2000 to 2010 indicate low CPR and SOC. However, during this period there were no SEC concerns. On the other hand, there is an indication that CPR increased in some countries from about 2011 to 2015. Also, in these countries, there has been an increase in SOC among the citizens in these countries. Similarly, there

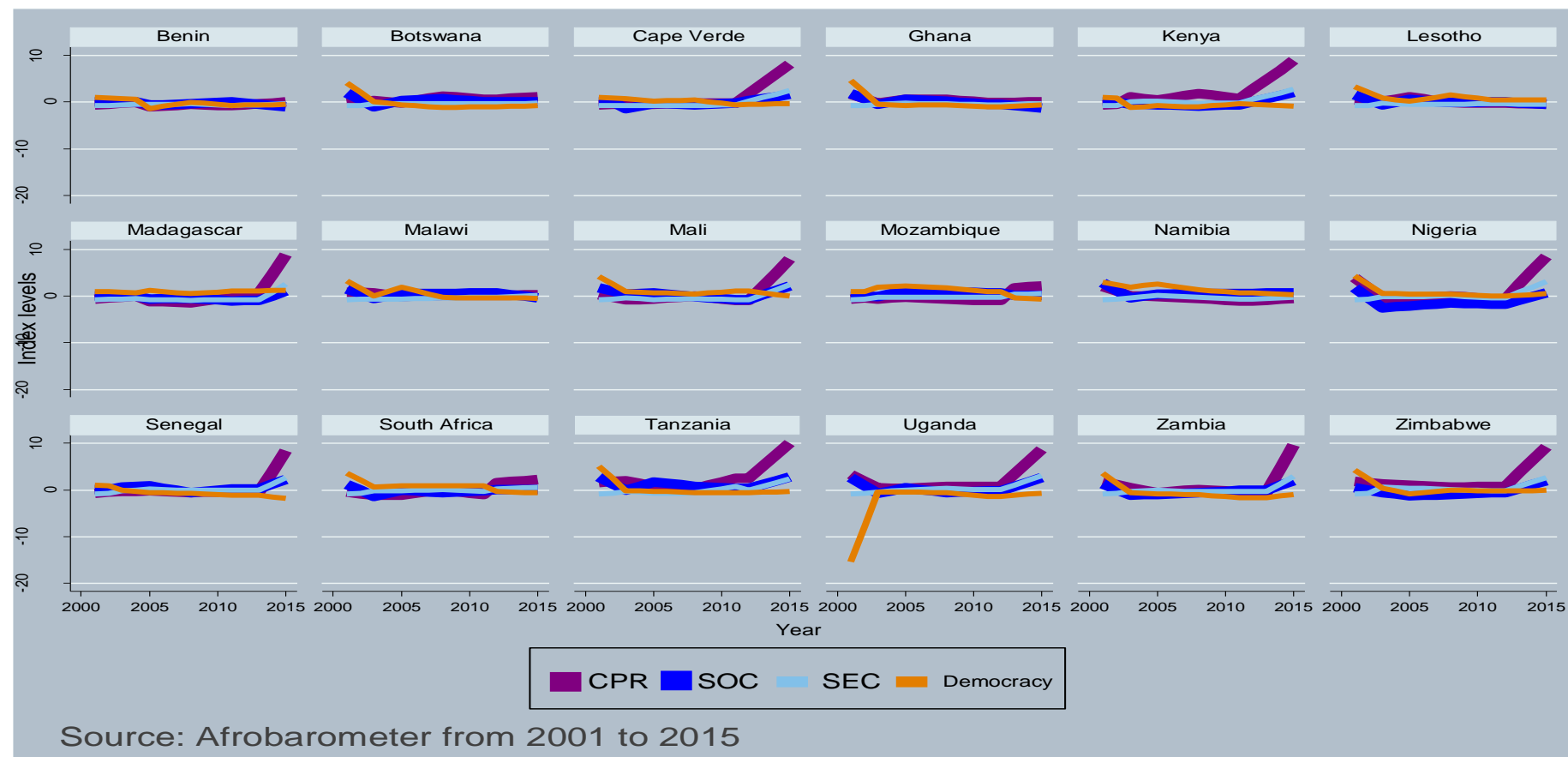
have also been concerns of SEC in the countries. Besides, democracy seems to be maintaining support in the region from the year 2000 to the present time.

Even though CPR seems to play a significant role, Table 5.4 above shows that CPR in SSC negatively and significantly impacts GDPPC. The confidence interval range for CPR is from -32.45 to -11.94 and its p-value is 0.000 less than 90% threshold confidence level. That seems to agree with the findings in chapter 4 subsection 4.4.4.3 whereby Figure 4.13 shows that CPR appears to be lower in developing countries than in developed countries. So it is also observed that the impact of CPR in developing countries on GDPPC is more substantial than in developed countries. For example, the impact of CPR on GDPPC in developing countries is 5.5% while in developed countries is just 0.77% as demonstrated in columns (7) and (10) in Table 4.6 in chapter 4.

Furthermore, Table 5.6 below indicates that CPR reduces GDPPCG in SlowOLS1SSC model by 16.4% compared to just 0.99% in the FastOLS1SSC model. Hence, encouraging people to participate in politics yields greater economic success in SSC. While in the same category, Table 5.4 above indicates that REG insignificantly contributes to GDPPC in SSC. However, Table 5.6 below shows that REG significantly promotes GDPPCG in the FastOLS1SSC model while in SlowOLS1SSC model insignificantly enhances GDPPCG.

Finally, variables in this category seem to perform differently with the economic status of the countries. These findings disclose that variables' importance differs within each economic growth level of countries. Therefore, grouping countries together as for the 18 SSC may fail to capture which variables are necessary for each country. The next section will highlight on institution category.

Figure 5.11: Plots of graphs showing relationships of variables

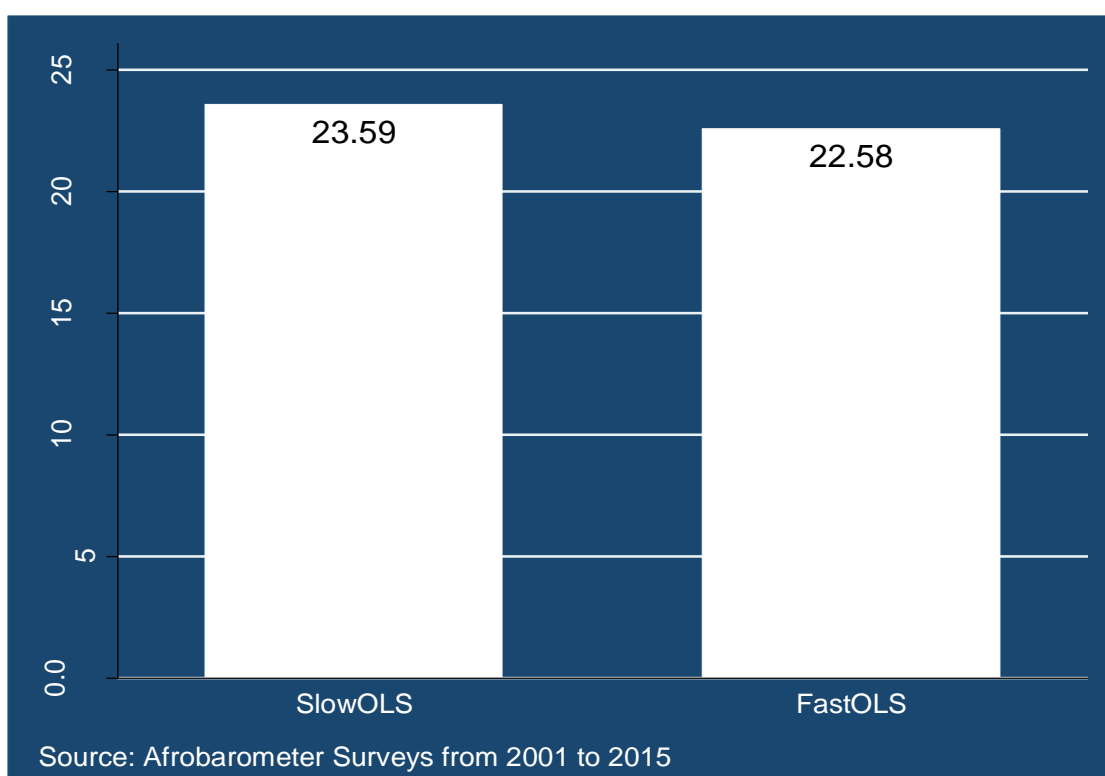


Notes. Even though the Y scale seems the same for CPR, SOC, SEC and democracy, zero (0) in the scale has different meanings for each variable. For instance, SEC and democracy (0) mean no crime in the society and it means support for democracy. On the other hand, SOC and CPR (0) or anything less than (0) denotes low (no) SOC or CPR while anything above 0 shows SOC or CPR increasing with higher numbers.

5.2.4 Institutional category

COC in Table 5.4 above significantly reduces GDPPC in 18 Sub-Saharan countries. The p-value for COC is 0.078 which is less than 90% significance level threshold. Its confidence interval range is -227.16 to -33.7. However, it is noted in Table 5.6 below that COC in SlowOLS1SSC model significantly reduces GDPPCG while in FastOLS1SSC model insignificantly contributes to GDPPC. On the contrary, Figure 5.12 below indicates that COC is better executed in slow growth countries than in fast-growth countries. That seems to suggest that institutions may not be the critical determinant of fast economic growth in SSC. However, the finding seems to agree with Knack and Keefer (1997) that higher levels of trust enhance better quality of institutions.

Figure 5.12: COC in slow and fast growth countries

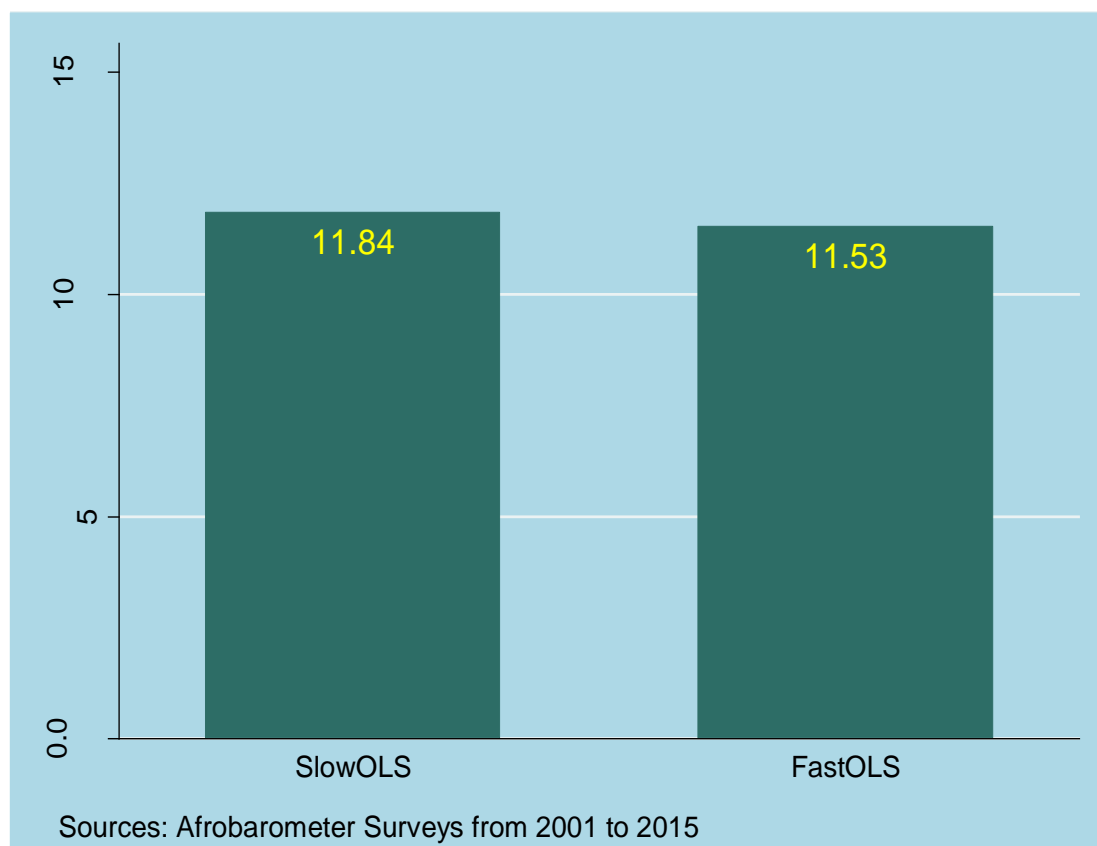


Notes. Slow growth countries score well than fast-growing countries in the Sub-Saharan region concerning corruption control.

Another variable in this category that significantly reduces GDPPC in Sub-Saharan countries is GEF as illustrated in Table 5.4 above. Its confidential interval ranges from -10.54 to -2.22 and its p-value is 0.003 which is less than 90% significance threshold level. Further exploration in Table 5.5 below indicates that GEF significantly reduces GDPPCG in the FastOLS1SSC model while in SlowOLS1SSC

model insignificantly enhances GDPPCG. Figure 5.13 below shows that slow growth countries have slightly better scores of GEF than fast-growth countries.

Figure 5.13: Scores of GEF in slow and fast growth countries



Notes. Scores of GEF in both slow and fast growth countries

The last variable in the institutional category to be reported in this section is ROL. Table 5.4 above indicates that ROL significantly promotes GDPPC in Sub-Saharan countries. Its confidence interval ranges from -0.00 to 0.17 and its p-value is 0.059 which is less than 90% significance threshold level. However, the impact of ROL on GDPPCG is different in SlowOLS1SSC model and FastOLS1SSC model. For instance, ROL significantly enhances GDPPCG in the FastOLS1SSC model while in SlowOLS1SSC model insignificantly reduces GDPPCG. The impact size of ROL on GDPPCG indicated in columns (4) in Table 5.7 below shows that ROL contributes to GDPPCG in FastOLS1SSC model 47 times more than in slow growth countries. The observations made in Tables 5.4, 5.5, 5.6 and 5.7 seem to indicate that variables in all the categories perform differently in SSC as observed in slow and fast-growing countries. The next section will discuss the findings reported above.

Table 5.6: Impact of Variables on GDPPCG in slow and fast countries

Dependent variable: GDPPCG		
(1)	(2)	(3)
Independent variables	SlowOLS1SSC	FastOLS1SSC
Traditional		
EMP	0.0917 (0.1420)	0.0748 (0.3828)
HDI	0.0073 (0.0133)	-0.0352* (0.0205)
IGS	76.9003 (47.3966)	38.7577 (78.6792)
RKN	-0.0955*** (0.0218)	0.0052 (0.0330)
HCT	73.6827*** (24.5514)	25.7169 (27.5934)
EGS	0.2077* (0.1058)	0.0268 (0.1278)
AID	-0.1990** (0.0814)	-0.1643 (0.1236)
GCI	0.0852 (0.0562)	0.1349 (0.0972)
GRS	0.0836 (0.0630)	-0.0172 (0.1134)
ETR	1.2159 (4.5121)	-9.1213* (5.4229)
Institutional		
ROL	-0.0275 (0.0671)	0.1826** (0.0842)
GEF	0.1591 (2.6659)	-9.0551** (3.7231)
COC	-155.5713*** (57.4022)	26.4787 (103.6554)
Cultural		
CPR	-42.4049*** (6.6153)	-10.5587 (8.9040)
SOC	24.5307** (10.9590)	11.1005 (12.2023)
REG	6.6097 (7.6231)	126.3467*** (47.6756)
SEC	101.2105*** (16.3263)	14.3800 (22.2524)
Constant	34.9705 (72.1205)	-303.1952 (222.2977)
OBS	150	120
R2	0.4732	0.2840
R2_A	0.405	0.165
DF-R	132	102
DF-M	17	17
F	6.976	2.380
P-value	0.0000	0.003
Number of Countries	10	8

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

Notes. Column (2) shows SlowOLS1SSC model while column (3) indicates FastOLS1SSC model with traditional, institutional and cultural variables.

Table 5.7: Effect size of independent variables on GDP per capita growth in slow & fast-growing economies

Dependent Variable: GDPPCG											
SlowOLS1SSC Model						FastOLS1SSC Model					
(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Rank	Variable	Standardize	Eta^	t-test	P-	Rank	Variable	Standardize	Eta^	T-test	P-
1	SEC***	0.97	15.34	6.20	0.000	1	REG**	0.42	4.93	2.65	0.009
2	HCT**	0.38	3.59	3.00	0.003	2	ROL*	0.31	3.30	2.17	0.032
3	SOC**	0.24	2.00	2.24	0.027	3	GCI	0.19	1.35	1.39	0.168
4	EGS*	0.23	1.54	1.96	0.052	4	SOC	0.15	0.58	0.91	0.365
5	GCI	0.16	0.92	1.52	0.132	5	SEC	0.15	0.29	0.65	0.520
6	IGS	0.16	1.05	1.62	0.107	6	HCT	0.14	0.61	0.93	0.354
7	GRS	0.10	0.70	1.33	0.186	7	IGS	0.07	0.17	0.49	0.623
8	EMP	0.06	0.17	0.65	0.520	8	COC	0.04	0.05	0.26	0.799
9	REG	0.06	0.30	0.87	0.387	9	EMP	0.03	0.02	0.20	0.845
10	HDI	0.04	0.12	0.55	0.582	10	EGS	0.03	0.03	0.21	0.834
11	ETR	0.03	0.03	0.27	0.788	11	RKN	0.02	0.02	0.16	0.874
12	GEF	0.01	0.00	0.06	0.953	12	GRS	-0.02	0.02	-0.15	0.880
13	ROL	-0.05	0.07	-0.41	0.682	13	AID	-0.12	1.24	-1.33	0.186
14	AID**	-0.16	2.38	-2.44	0.016	14	HDI*	-0.18	2.07	-1.72	0.089
15	COC***	-0.25	2.93	-2.71	0.008	15	ETR*	-0.23	1.99	-1.68	0.096
16	RKN ***	-0.53	7.66	-4.38	0.000	16	GEF**	-0.28	4.15	-2.43	0.017
17	CPR ***	-1.15	16.40	-6.41	0.000	17	CPR	-0.31	0.99	-1.19	0.238

Notes. Significant levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. SlowOLS1SSC for slow growth economies while FastOLS1SSC for fast growth economies.

5.2.5 Conclusion of the reporting of the results section

Generally, Tables 5.4 and 5.5 above indicate that traditional category has many more variables significantly impacting GDPPC than cultural and institutional variables. However, regarding the size of the impact on GDPPC, cultural variables seem to be the most influential category in the SSC. However, further examination in Tables 5.6 and 5.7 above shows that the impact of variables on GDPPC differs with the economic growth level of countries. Also, some variables that significantly or insignificantly impacted GDPPC in Tables 5.4 and 5.5 above did not do the same in Tables 5.6 and 5.7 above. That seems to suggest that the impact of variables on GDPPC differs from context to context. This finding is related to the findings in chapter 4 whereby the variables in all categories perform differently in developed and developing countries as reported in chapter 4 section 4.3. Therefore, the assumption of neoclassical theory that economic variables work in the same way in all countries misses out the reality of the performances of variables in each level of economic development. Also, the exclusion of cultural variables in neo-classical theory misses out important factors that enhance the productivity of human capital in countries. Hence, the goal of this study is to explain economic disparities among countries by incorporating all the three categories of variables in the model. So countries should be grouped according to their development level or economic growth level so that performance of variables can be identified to explain economic differences among countries. Hence, the next section will discuss in detail the overall findings in the empirical analysis above.

5.3 DISCUSSION

5.3.1 Context for the chapter

The findings in this chapter based on the performance of variables in Tables 5.4, 5.5, 5.6, and 5.7 above. The context of the study is 18 SSC which is one of the least developed regions in the world. The investigation has been carried out as a follow-up to the findings in chapter 4. See the introduction for more information. The techniques used in the analysis briefly highlighted in the next section.

5.3.2 Estimation method and tests

Section 3.5.2 in chapter 3 explains in detail the tests used to affirm the OLS estimation technique. On the other hand, Models such as Random, IVREG2, and GLS respectively in Table 5.4 above were included to check the concern of correlations noted among independent variables in OLS1SSC model. The results are almost like

the OLS1SSC model. Hence, OLS results are valid and justified and are selected for the study.

5.3.3 Summary of findings

The results for the OLS model are presented in Tables 5.4 and 5.5 above. Table 5.5 shows variables ranged from 1 to 7 which significantly contribute to GDPPC in the 18 SSC. Other variables that positively but insignificantly contribute to GDPPC are ordered from 8 to 10. However, some variables significantly reduce GDPPC in the SSC region; these variables are ranked from 11 to 17 in Table 5.5 above. Furthermore, the performance of variables in Table 5.4 is further investigated by grouping the 18 SSC into slow and fast-growing countries as explained in sub-section 5.1.1 above. The results are presented in Tables 5.6 and 5.7 above. Generally, variables impact GDPPCG differently in SlowOLS1SSC and FastOLS1SSC models in SSC. The performance of variables in Tables 5.4, 5.5, 5.6 and 5.7 are reported in section 5.2 above. Hence, the next section will briefly summarize the main findings in this chapter.

5.3.4 The main findings

The main findings in this chapter are as follows: 1) Insecurity in Sub-Saharan region hinders economic growth. 2) human capital is vital for economic growth in Africa. 3) CPR needful in Africa. 4) self-reliance key to economic development in Africa. 5) the Competition among people (individuals) good for economic growth. 6) Foreign aid increases dependency spirit that derails economic growth. These findings are further discussed in the next paragraphs.

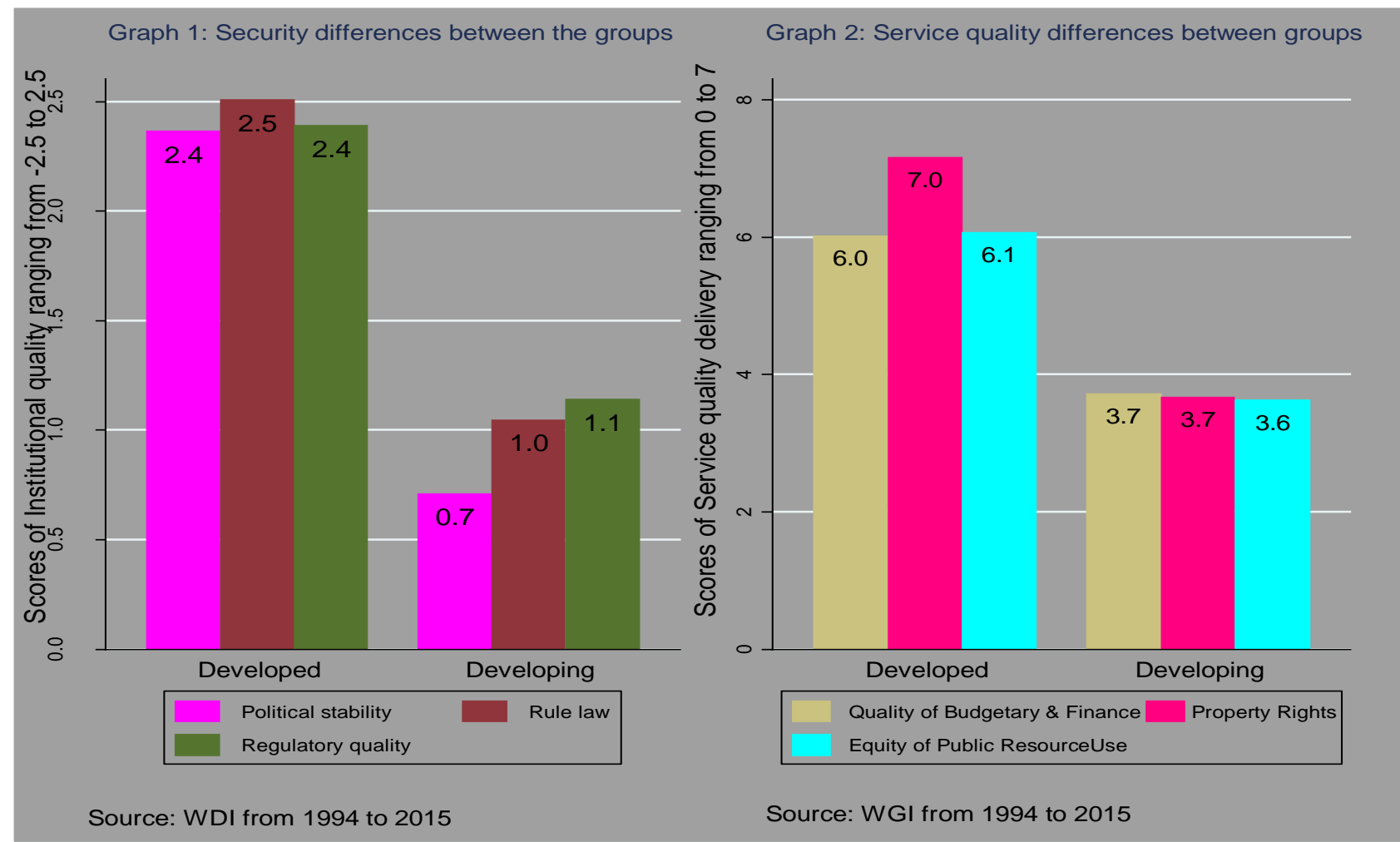
5.3.4.1 Insecurity in SSC region hinders economic growth

The results in Tables 5.4 and 5.5 above show that security significantly enhances GDPPC in SSC. However, further investigation of data shows that security was inversely coded 0 to 4, whereby 0 denoted no security fear or want while anything above 0 denoted presence of fear or want. Figure 5.9 shows that the mean of security in SSC is above zero. It indicates the presence of insecurity in SSC. Also, Table 3.3 in column (4) for Sub-Saharan countries shows that a standard deviation (SD) decrease of insecurity by 0.77 increases GDPPC by an SD of 78.09. The percentage effect size of security on GDPPC is about 5% as shown in Column (4) in Table 5.5 above over the period of 15 years. Therefore, security is one of the essential factors in explaining why SSC experience unsustainable economic growth over a period. The question is “what is the possible cause of insecurity in SSC?” Some possible suggestions are the ineffective rule of law, little confidence in police or justice systems, political instability, poor service delivery, and inadequate regulatory control. The elements are shown in Figure 5.14 below capturing security and service quality

differences between developed and developing countries. Developed countries scores are higher than developing countries in all security and service elements in Figure 5.14 below.

Lower scores in developing countries in all the elements of security illustrate that security concerns in these countries derail economic growth. For instance, security concerns in SlowOLS1SSC model reduce GDPPCG 53 times more than in the FastOLS1SSC model as shown in columns (4) in Table 5.7 above. Therefore, failure to address insecurity concerns in most of the slow growth countries is a human factor. Moreover, in most cases demonstrated in self-seeking individuals and government officials corruptly indulging in abuse of countries' resources as observed by (Ostrom, 2010, p. 642; Krueger, 1974, p. 291; Ehrlich and Lui, 1999, p. 272). This being the case, lack of security in most of SSC relates to the purpose of this study whereby variables hindering economic growth in the countries are identified. This identification of variables explains why these countries economically are lagging behind developed countries. How? Lack of security chases investors away due to high-security costs for businesses (Ndulu et al., 2007, p. xv; Enamorado et al., 2014, p. 2; Hall and Jones, 1999, p. 94; Beraho, 2007, p. 265; Duch and Taylor, 1993, p. 752). Lack of investment could lead to high unemployment discussed in the next section.

Figure 5.14: Security and service quality indicators in developed and SSC



Notes. In both graphs 1 and 2, developed countries perform much better than developing countries in all security and service indicators.

5.3.4.2 Human capital necessary for economic growth in Africa

HCT in this chapter is based on years of schooling and returning to education (Barro and Lee, 2013). The results in Tables 5.4 and 5.5 above show that HCT significantly enhances GDPPC in SSC. However, Tables 5.6 and 5.7 above show that HCT significantly promotes GDPPCG in SlowOLS1SSC model. On the other hand, in the FastOLS1SSC, HCT insignificantly enhances GDPPCG. Why is economic growth in slow growth countries characterized by slow and erratic growth if human capital significantly contributes to economic growth? Generally, it is claimed in the literature that HCT positively and significantly impacts economic development in countries through innovation, absorption capacity, technology diffusion (Romer, 1990; Nelson and Phelps, 1966; Falvey et al., 2007; Wolff, 2001).

Nevertheless, Benhabib and Spiegel (1994) in their research concluded that HCT when included in their production function directly contributed insignificantly to economic differences among countries. In contrast to their claim, the impact of HCT in Table 5.4 in OLS1SSC model above significantly enhances GDPPC. Besides, in Table 5.6 above in SlowOLS1SSC model HCT significance level of contribution to GDPPCG is increased from 0.019 in Table 5.4 to 0.003 in Table 5.6. The impact of HCT in SlowOLS1SSC model in Table 5.7 is two times more than the OLS1SSC model in Table 5.4 above. Also, Table 5.6 shows HCT insignificantly contributes to GDPPCG in FastOLS1SSC model yet Figure 5.3 above indicates that HCT level is slightly higher in the FastOLS1SSC model than in SlowOLS1SSC model. The outcomes of HCT in Tables 5.6 and 5.7 are different from the results in Tables 5.4 and 5.5 above. What does this mean? It seems to suggest that HCT though crucial in the 18 SSC does not explain differences in economic growth between slow-growing and fast-growing countries.

Remarkably, Tables 4.5 and 4.6 in chapter 4 indicate that tertiary education (TED) significantly enhances GDPPC in both developed countries and developing countries. Table 4.6 shows that human capital in the developed SlowOLS2 model has more effect on GDPPC than in the developed FastOLS2 model. Similarly, TED in developing SlowOLS3 model has more impact than developing the FastOLS3 model. This finding does also suggest that TED does not explain economic development differences between slow and fast growth developed and developing countries. The different performances of TED in chapter 4 and this chapter demand further explanation. Human capital performances may reflect different expressions of the concept among scholars. For instance, human capital in chapter 4 is generated as a percentage of the population with tertiary education.

In contrast, the concept of human capital in this chapter is based on years spent on education from primary to tertiary education. The findings in chapter 4 suggested that TED education significantly promotes GDPPC in both developed and developing countries. However, TED education in literature is highly associated with high costs mainly by the leading countries through innovating technologies and experimentation, refinements, and scientific investigations (Judd, 1985). However, it is reported in the literature that differences in the advancement of knowledge among countries eventually widens differences in GDPPC mainly between developed and developing countries (Atkinson and Stiglitz, 1969). Furthermore, Nelson and Phelps (1966) claimed that the advance of technology is associated with education for the reason that more educated people are quicker in adapting to production techniques than less educated people. The author appears to suggest that education speeds up the process of technology diffusion. On the other hand, human capital seems to facilitate absorption capacities more in slow developed and slow developing countries than in fast-growth countries in chapter 4. Similarly, in this chapter HCT in slow growth countries perform better than in fast-growth countries.

Therefore, the inconsistency of the productivity of HCT in both chapter 4 and this chapter demands more exploration. Partly, the ranking of variables in Tables 5.5 and 5.7 illustrate that cultural variables are equally as important as traditional and institutional variables. The agency of human beings in creating and developing better standards of living in every society does not rely only on HCT (TED) obtained through education and training but also the context and environment in which they live. Hence, HCT/TED is extended to include cultural values that determine productivity differences between people with the same level of HCT/TED concerning education and training. See chapter 2 sub-section 2.2.3.2 for more arguments on HCT/TED and cultural variables. Therefore, endogenous theory model's exclusion of cultural category and context for the definition of HCT/TED do not engross the real cause of productivity differences demonstrated in chapter 4 and this chapter. Therefore, HCT/TED contradictory results in chapters 4 and 5 are further examined in chapter 6 a multi-case study for Malawi and Botswana. These two countries each represent the group of slow and fast-growing countries respectively. It also appears to suggest that the productivity of individuals refers as well to the choices or preferences made by individuals for welfare. Therefore, productivity does not only rely on HCT/TED but the environmental structures such as social organization institutions and economic institutions discussed in the next section.

5.3.4.3 SOC and CPR needful in Africa

The findings in Tables 5.4 and 5.5 above show that CPR significantly reduces GDPPC in SSC as also noted by (Guiso et al., 2010). Significance reduction in GDPPC indicates that CPR is generally missing in the SSC. Furthermore, Tables 5.6 and 5.7 above indicate that CPR significantly reduces GDPPCG in SlowOLS1SSC model. On the other hand, in the FastOLS1SSC model, it insignificantly reduces GDPPCG. It is confirmed in Figure 5.15 below whereby fast growth countries have higher levels of CPR than slow growth countries. That seems to agree with the findings in chapter 4 sub-section 4.4.4.3 whereby Figure 4.13 showed the lack of CPR in developing countries compared to developed countries. For instance, CPR promotes GDPPC in developed countries by 5.5% while in developing countries only 0.77% as demonstrated in Table 4.4 in chapter 4. Also, Table 5.6 above indicates that CPR reduces GDPPC in SlowOLS1SSC model by 16.4% compared to just 0.99% in the FastOLS1SSC model. Chapter 2 sub-section 2.4.2.1 explains the reasons why societies' approach to economic development is different. These differences reflect in the socio-cultural perceptions in the societies. These perceptions can be hostile or friendly to economic development.

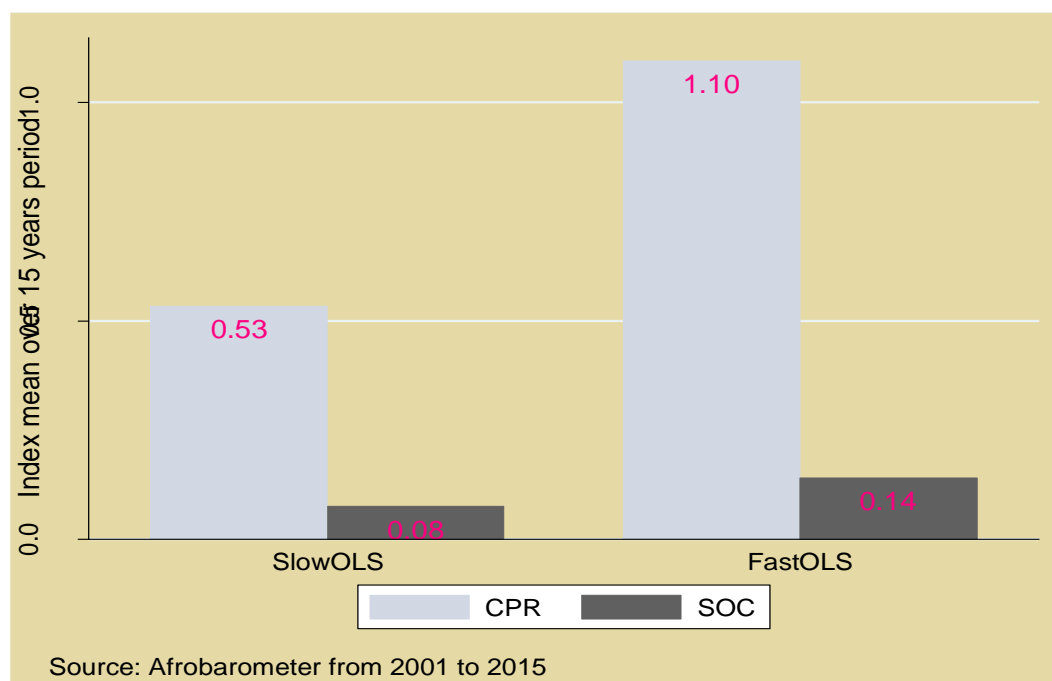
Furthermore, Figure 5.11 above appears to show CPR playing a significant role in shaping security and SOC in the SSC. For instance, most of the countries in this region from 2000 to 2010 indicate low CPR and SOC. However, in this period there has been no security concerns. On the other hand, CPR increased in some countries from about 2011 to 2015. So there has been an increase in SOC among the citizens in these countries. That seems to agree with the findings in chapter 4 section 4.4.4.3 whereby Figure 4.13 shows that CPR appears to be lacking in developing countries compared to developed countries.

5.3.4.3.1 Association of CPR, SOC, and economic growth

The association of CPR and SOC is mainly connected to people's trust in the leaders leading to participation in politics. Tables 5.4 and 5.5 above show the impact of SOC on GDPPC is positive and significant. However, the impact of SOC on GDPPCG seems to differ in slow growth and fast-growing countries. For example, Table 5.6 above shows that SOC in SlowOLS1SSC model significantly influences GDPPCG. However, in FastOLS1SSC, SOC insignificantly enhances GDPPCG even though levels in fast-growth are higher than in slow-growth countries as illustrated in Figure 5.15 below. The effect size of SOC in SlowOLS1SSC is about four times greater than in FastOLS1SSC, yet, the countries have slow economic growth. SOC is considered as features of social organization that could determine society's

efficiencies or inefficiencies in facilitating and coordinating their actions with wealth creation. The findings in this chapter are in line with Dinda (2008) who noted that trust has a positive and significant influence on economic development.

Figure 5.15: CPR differences in Slow-SSC and Fast-SSC growth countries

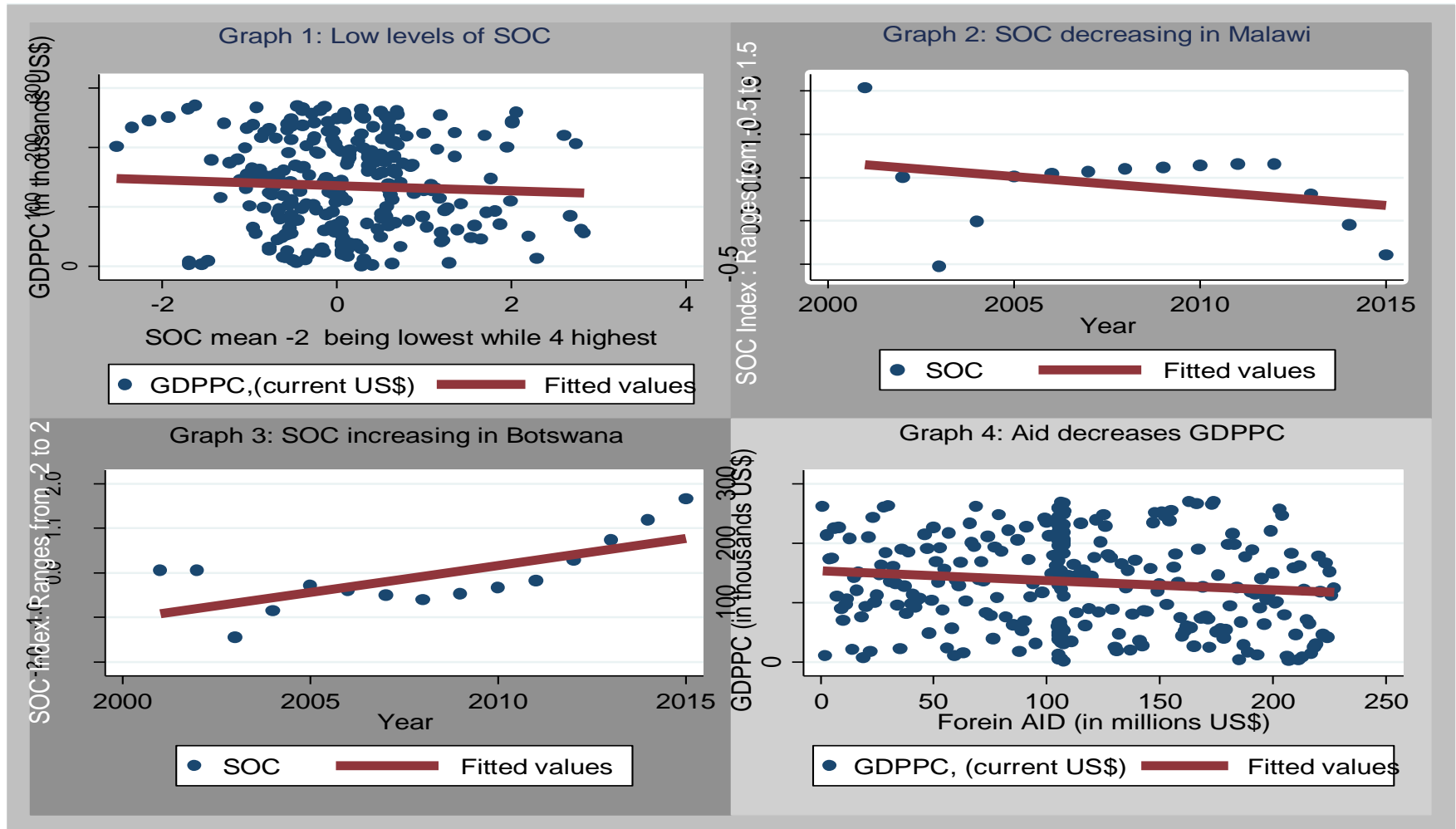


Notes. Civic capital is generated from four variables representing officials contacted (see Table 3.5 in chapter 3).

Despite the strong performance of SOC in Tables 5.4 and 5.5, SOC in these countries is generally low. For instance, graph 1 in Figure 5.16 below shows most SSC's score of SOC cluster around '0' while very few countries have the score of SOC above 1. It shows distrust of citizens towards their leaders hampers economic growth in the SSC (Guiso et al., 2010). Also, graph 2 in Figure 5.16 below shows that citizens in Malawi do not trust their leaders. In contrast, graph 3 in the same figure shows citizens in Botswana trust their leaders. Concerning economic growth, Botswana performs much better than Malawi. Hence, an increase of SOC is very vital to stimulating economic growth in the SSC. Knack and Keefer (1997) further researched the effects of SOC on judicial efficiency, and they concluded that one increase of standard deviation of SOC improves judicial efficiency. The judicial efficiency can be captured by institutional variables as suggested by (North, 1990; Schleifer and Vishny, 1993). For example, Table 5.4 above shows that COC negatively and significantly impacts GDPPC in SSC. It is also noted that COC in SlowOLS1SSC model negatively and significantly impacts GDPPCG while in FastOLS1SSC model positively and insignificantly impacts GDPPCG. However, Figure 5.12 above shows

that COC is better executed in slow-growth countries than in fast-growth countries. That seems to suggest that institutions may not be the critical determinant of fast economic growth in SSC.

Figure 5.16: SOC, FDI and GDP per capita in SSC



Notes. Graph 1 shows the relationship of GDPPC and SOC in the region. Graph 2 shows that SOC in Malawi is decreasing with time. Moreover, Graph 3 Shows SOC increases with time in Botswana. Lastly, Graph 4 shows the relationship between GDPPC and AID.

Furthermore, Banfield (1958) together with Putnam (1993) connected SOC, CPR and economic behavior to differences of traditional histories. It appears to suggest that formation of orientations or preferences of doing things is attached to the past values, norms and rules of the societies and these values are the ones that explain economic performances differences (Glaeser et al., 2002; Tabellini, 2010). Hence, lack of SOC in the SSC could be attributed to what Darity (1982) claimed, that slave trade was the most lucrative activity in the 18th century. Also, it is claimed that immediately after the abolition of the slave trade, colonialism came into force in the African continent (Nunn, 2007). If critical historical junctures could explain the formation of culture, then underdevelopment in Africa could also be associated with colonialism and slavery (Platteau, 2009). See details in chapter 2 sub-section 2.4.1.2. The governance problems can be in the form of corruption, civil war, political instability and many other unproductive activities (Collier et al., 2008a). In this case, issues supposed to be at the center for the economic development progress of their countries were at the periphery to pave the way for unproductive acts that satisfied the leaders' appetite for power and profit maximization.

Similarly, Novak (1982) talked about the ills of global capitalism as empowering the developed countries to act as centers of planning and authority that attempt to make developing countries dependent upon the capitalist centers. In this case, therefore, the relationship hinders the creativity of the periphery countries, hence their inability to compete at the global level, leading to underdevelopment (Mahutga and Smith, 2011, p. 257). Hence, self-realization and self-reliance are crucially important for people in SSC to change the future of the next generations as discussed in the next section.

5.3.4.4 Utilizing capacity and self-reliance key to economic development

The results in Tables 5.4 and 5.5 above indicate that RKN significantly reduces GDPPC in 18 SSC. This finding agrees with the finding in chapter 4 section 4.4.4.4 whereby RKN significantly enhances GDPPC in developed countries while in developing countries significantly reduces GDPPC. Figure 5.17 below illustrates the differences regarding RKN levels between developed and developing countries. The question is what causes low RKN in SSC? To answer the question, the reference is made to a dataset of chapter 4 for developed and developing countries. For instance, graph 1 in Figure 5.17 below shows differences in gross capital formation and high technology exports between developed and developing countries.

On the other hand, graphs 2 and 3 illustrate differences in GRS and ETR for developed and developing countries. In all the four elements in Figure 5.17 below developed countries outperform developing countries. This may explain why

developed countries have larger RKN than developing countries. The capacity to build RKN captures both its quality and quantity and is indicated in elements such as those in Figure 5.17 below as explained in chapter 2 sub-section 2.2.2.3. However, the capacity to produce according to Caselli (2005) depends on the input factors of RKN and HCT/TED. Caselli attributed poverty and underdevelopment to inadequate levels of RKN and HCT/TED in Solow's production function. The finding in Tables 5.4 and 5.5 above shows RKN negatively and significantly impacts GDPPC in SSC which appears to agree with Caselli's view that low capital levels cause underdevelopment. However, his view that low levels of HCT/TED in developing countries cause underdevelopment contradicts the finding in Tables 5.4 and 5.5 above since HCT/TED significantly contributes to GDPPC in SSC.

The other possible explanation of low capitals in developing countries is by Islam (1995) and Knight et al. (1992) who indicated that input factors concerning accumulation did not explain the differences in outcomes among countries. This view is in line with the findings in Tables 5.4 and 5.5 above. Nonetheless, they attributed the differences in development levels to country-specific effects interpreted as TFP. See chapter 2 section 2.6 for more information. Therefore, the capacity to produce RKN levels does not only rely on traditional economic factors in production functions but other factors as well, such as cultural factors.

Likewise, Steger (2002) also interpreted capital regarding physical and human capitals by claiming that the absence of diminishing returns in endogenous theory is as a result of HCT/TED formed through education and productive consumption⁴⁵. What does this mean to determinants of RKN levels as illustrated in Figure 5.17 below? That suggests that the determinants of RKN levels in Figure 5.17 below are not only quantity and quality of RKN but also a social capability that influence and shape socio-economic conditions and economic life in the countries. Hence, capital formation, high technology exports, domestic savings, and new business registrations are formed from both economic and cultural factors. For instance, in countries where there are high population growths, savings and investment in HCT/TED are reduced (Mankiw et al., 1992; Pack, 1994; Thirlwall, 2011). The increase in population has an aspect of cultural orientation and reduces the productivity of the country. The view seems to be in line with literature (Benhabib and Spiegel, 1994; Romer, 1990). It appears to suggest that increasing HCT/TED in SSC increases economic

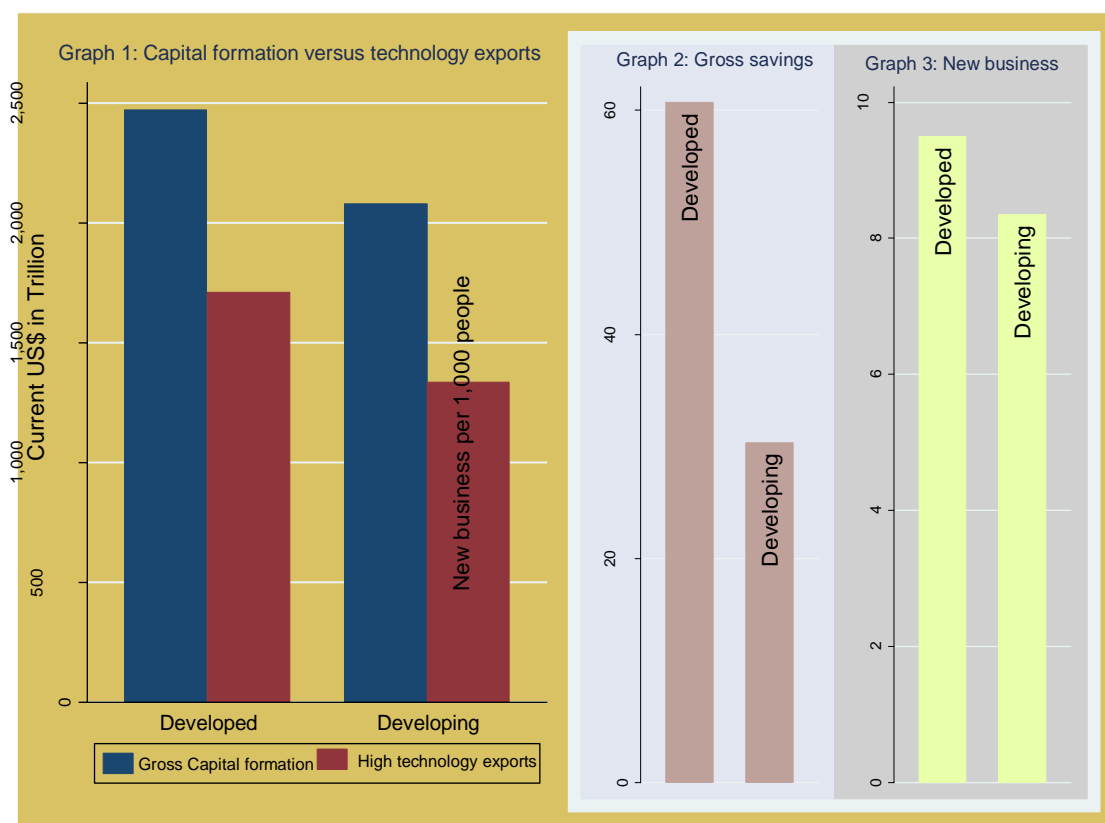
⁴⁵ To include the behaviors of people that utilize resources for better nutrition, health, and productivity

development in the region. However, comparing the effect size of HCT/TED and SEC, it is noted that SEC generated from the cultural data source is three times more effective than HCT/TED.

Furthermore, weaknesses in investment in HCT/TED are pointed out in the literature (Benhabib and Spiegel, 1994). They observed that HCT was insignificant in its contribution to economic development if not entered the regression model with the productivity of the countries. This productivity of the countries is referred to as capability of people or characteristics of people (cultural capital) in countries to utilize their resources (Mankiw et al., 1995). Characteristics or capability of people could also be referred to as socio-economic specificity of countries as suggested by (Coccia, 2009).

Therefore, HCT/TED definition that only captures years of study or enrolment rates does not capture all that make people productive. Hence, varying levels of productivity of HCT/TED with people of the same education levels from country to country explains the role of specific characteristics of people (Bangwayo-Skeete et al., 2011; Pritchett, 2001). All in all, productivity relies on choices made by people in their context shaped by socio-cultural systems of meanings and practices through social organization and economic institutions. Can there be differences in the effects of slavery and colonialism among SSC? The possible answers are explored in chapter 6 in the case study between Malawi and Botswana. Upshot catch up effects and accumulation of capital seem not to work in SSC; hence, better representation of categories of variables as illustrated in this study better explains economic disparities among countries. Differences in the capabilities of the people in different contexts also raise the issue of survival in the global competition which is discussed in the next section. Hence, utilization and self-reliance capability are desired attributes in SSC.

Figure 5.17: Determinants of RKN levels in countries



Notes. Graphs 1 to 3 illustrates four essential elements contributing to differences in RKN between developed and developing countries.

5.3.4.5 Competition among people good for economic growth

The findings in Tables 5.4 and 5.5 above show that GCI significantly enhances GDPPC in the SSC. However, GCI in Tables 5.6 and 5.7 above insignificantly enhance economic growth in both SlowOLS1SSC and FastOLS1SSC models. However, the effect size of GCI in Table 5.7 is 1.5 times more effective in the FastOLS1SSC model than in SlowOLS1SSC model in SSC. On the contrary, in chapter 4 in Table 4.8 GCI is five times more effective in slow-growth than in fast-growth developed countries. Similarly, in the same chapter 4 GCI is two times more effective in slow-growth than fast-growth developing countries as demonstrated in Table 4.8. Figure 5.18 below shows the GCI levels in slow and fast developed and developing countries in graph 1; slow and fast in SSC in graph 2. This figure shows the levels of GCI are slightly higher in fast-growth than slow-growth in developed countries. Slow-growth countries have the higher useful contribution of GCI than fast-growth countries. On the contrary, higher levels of GCI in slow-growth are more effective than lower levels in fast-growth in developing countries. Furthermore, in chapter 5 slow-growth countries have higher GCI levels than fast-growth countries,

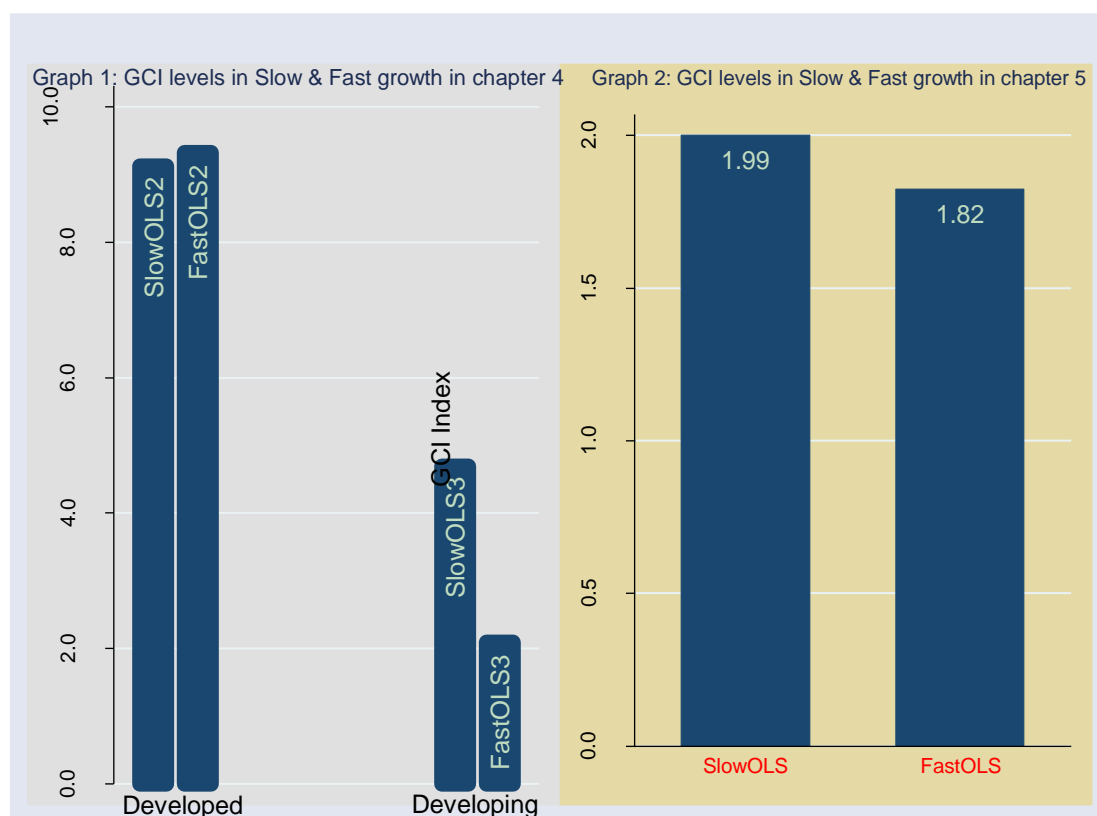
yet, fast-growth countries have more effective GCI than slow-growth countries as shown in graph 2.

It seems to suggest that GCI, though necessary, is not the critical factor in propelling economic development in SSC. Why? The possible explanation could be that the generated concept of GCI is not capturing the key factors that propel economic growth in SSC. The concept of GCI might be giving the same level of performance of factors involved while there might be some factors more important in this region than in developed countries. Nevertheless, some of the findings of GCI above are in line with literature (Lall, 2001). Table 5.5 above indicates that the impact of GCI on GDPPC is about four times less than the impact of SEC in the same table. That suggests that the microstructure of the countries is very crucial in determining the productivity and competitiveness of the countries. The microstructure of countries relies on cultural capital depicted in this chapter as CPR, SEC, and SOC. Therefore, cultural capital (ICC see details in chapter 2 section 2.3) is needed in finding solutions to problems engulfing countries mainly when markets fail, and interventions are needed to sort out the challenges. This ICC is related to firm capabilities needed to succeed in fierce competition as observed by (Lall, 1992). Capabilities and institutions⁴⁶ work hand in hand as expressed by Elder (1994); Thomas and Znaniecki (1920) who contended that individuals through their reflections and competitive attitude help the formation of social organization and culture, even though social organization and culture could constrain and inform the individuals. That appears to suggest that the intellectual ability and moral qualities rely on the formal and informal institutions of the specific country⁴⁷. See more information in chapter 2 section 2.4. It implies that the construction of the way of life by making decisions as to what strategies and choices to pursue concerning local and global environments determines social outcomes, such as economic growth or underdevelopment. The discussion of GCI in this section fulfills the intention of the study of meeting the goals of identifying the variables that enhance or hinder economic growth in developed and developing countries.

⁴⁶ Both formal & informal institutions

⁴⁷ Context

Figure 5.18: Higher levels of GCI contributes significantly to GDPPC



Notes. Graph 1 shows differences in GCI levels in slow growth and fast growth in developed and developing countries. Graph 2 also indicates the levels of GCI in slow and fast SSC.

5.3.4.6 AID increases dependency spirit

AID in this study is defined as inflows of foreign aid to SSC from all donors. The finding in Tables 5.4 and 5.5 above shows that AID in SSC reduces GDPPC significantly. Graph 4 in Figure 5.16 above shows that the relationship between AID and GDPPC is negative in SSC over the period from 2001 to 2015. Why should this be possible? The finding seems contradictory to the assumption of the neoclassical theory that the accumulation of capital stock significantly increases economic growth in the countries. It is reported in the literature that in SSC AID averages about 44 % of governments' budgets. Some countries in this region receive much higher support than this from developed countries (Klugman, 2010). Regarding the negative relationship between AID and GDPPC as indicated in graph 4 in Figure 5.16 above, Landes (1998) argued that economic growth of countries does not rely on AID but the imbued capacity the citizens have to deal with context challenges. For instance,

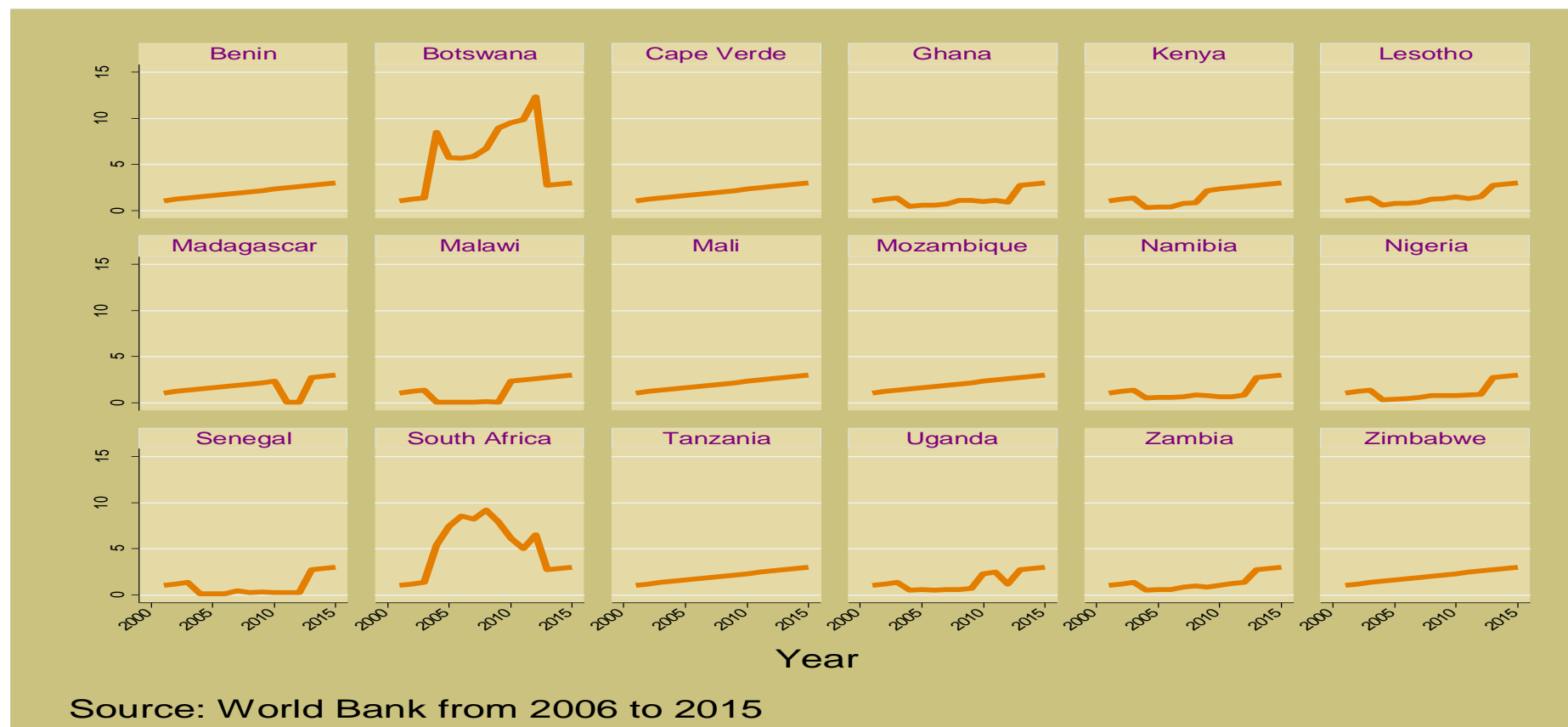
section 4.3.4.4 in chapter 4 argued that FDI⁴⁸ significantly contributes to GDPPC in fast-growth developing countries demonstrating their capabilities to compete globally. It enables the fast-growing countries to enjoy the opportunities provided by globalization while slow growth countries are vulnerable to external competition (Slaughter, 1997; Thomas, 1997). Furthermore, Tables 5.6 and 5.7 above for SlowOLS1SSC and FastOLS1SSC models show that AID in SlowOLS1SSC significantly reduces GDPPCG. On the other hand, AID in FastOLS1SSC insignificantly reduces GDPPCG. Why differences in the impact of AID on GDPPCG in countries in the same region? The possible answer could be that slow-growth countries though receive much more AID from developed countries than fast-growth countries as demonstrated in Figure 5.8 above cultivate dependency attitude, hence, significant adverse impact on GDPPCG. Alternatively, is it because the fast-growing countries have institutions that better COC than those in slow-growth countries? Concerning COC in Tables 5.6 and 5.7 above, COC significantly reduces GDPPCG in SlowOLS1SSC model while in the FastOLS1SSC model it insignificantly impacts GDPPCG. That seems to suggest that fast-growth countries have a better quality of institutions than slow growth countries. This suggestion is contrasted in Figure 5.12 above whereby slow-growth countries have slightly higher levels of COC than fast-growth countries. Despite the better performance of institutions in the slow-growth countries than in fast-growth countries, the economic growth in fast-growth countries is higher than in slow-growth countries. That seems to suggest that AID is not the critical determinant of economic growth in SSC. Hence, the finding in section 4.4.4.4 seems to suggest that developing countries need to cultivate the spirit of self-reliance to change the slow and erratic economic growth in the countries. However, the finding as illustrated in Figure 5.12 above that slow-growth countries seem to have better institutions, demands further examination in chapter 6 a multi-case study for Malawi (slow-growth) and Botswana (fast-growth). Generally, the finding in this section seems to suggest AID is not the critical element in stimulating economic growth in SSC. Also, the results in Tables 5.6 and 5.7 suggest that the lack of entrepreneurship skills in SSC fail to boost economic growth through the creation of employment as discussed in the next section.

⁴⁸ FDI as direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy (see Table 3.2 for more information about FDI definition).

5.3.4.7 ETR fails to boost economic growth due to poverty

The finding in this chapter indicates that ETR significantly reduces GDPPC in SSC. The negative relationship of ETR and GDPPC is reported in the literature (Carree et al., 2007; Wennekers et al., 2010). Also, Freytag and Thurik (2007) together with Van Stel et al. (2005) attributed this negative relationship to low levels of business formation across countries. Figure 5.19 below illustrates the trends of business creation over a 15-year period in SSC. However, the average business creation in slow and fast growth SSC is 2 and 2.1 businesses per 1,000 people in this region as illustrated in graph 1 in Figure 5.20 below. On the other hand, graph 2 in the same figure indicates that developed countries have more ETR skill levels than in developing countries. Table 3.2 in chapter 3 shows that a standard deviation increases of 1.79 of ETR enhance GDPPC by a standard deviation of 78.09 over 15 years' time. This seems to suggest that ETR skills are essential to promote economic growth in SSC and these skills are attributable to cultural aspects in the literature (Freytag and Thurik, 2007, p. 12; Boettke and Coyne, 2009, p. 137). For example, graphs 1 in Figure 5.20 below shows that there are differences in ETR skill levels in slow and fast growth. Even though fast growth countries have slightly higher levels of ETR compared to slow growth countries, ETR significantly reduces GDPPC in the FastOLS1SSC model while in SlowOLS1SSC it insignificantly promotes GDPPC. The explanation why the impact of ETR is better in slow than fast SSC needs further research. However, the illustration in graph 2 in Figure 5.20 below shows that developing countries have harmful levels of ETR skills compared to developed countries. Therefore, promoting more entrepreneurship value preferences in the SSC could increase the ability to create economic activities that can raise the productivity of the countries to propel economic development. Nonetheless, the findings in this chapter are in line with literature (Okun, 1962). Henceforth, stimulating entrepreneurship values is one of the critical answers to underdevelopment and unemployment in SSC. Another possible solution to unsustainable economic growth in SSC is by increasing exports of goods and services. For instance, Table 5.4 above shows that EGS significantly contributes to GDPPC in SSC. Also, Table 3.3 in chapter 3 shows a standard deviation of 80.35 of EGS in SSC increases GDPPC by 78.09 standard deviations over the 15-year period. Hence, more exports essential for sustaining economic growth in SSC.

Figure 5.19: Trends in new business creation across SSC



Notes. New registrations of firms per 1,000 people aged 15-64 depict the entrepreneurship skills in the SSC. Apart from Botswana and South Africa, the number of businesses registered in the other 16 countries are relatively very small ranging between 0 and 4 on average over 15 years period.

Figure 5.20: ETR skill levels in developed and developing countries



Notes. Graph 1 shows ETR skill levels in slow growth and fast growth SSC. Graph 2 indicates ETR skill levels in developed and developing countries.

5.3.5 How findings fit with literature

The findings discussed above briefly show that insecurity, lack of civic and social capital and low entrepreneurship skill levels, derail economic development in SSC. It is also observed that confident attitude, utility capacity, competitive orientation among individuals, better governance promotes economic development in the countries. Summary of the key findings in this chapter is presented in section 5.3.3 above. However, the findings in this chapter are compared to existing literature in the next 2 sub-sections. Appendix 2 help to highlight the role of the findings of this chapter relative to existing literature.

5.3.5.1 Similarities and differences of other studies to this study

Nunn and Wantchekon (2011) in article 1 in Appendix 2 below researched the slave trade and the origins of mistrust in Africa. They concluded that low levels of social capital reflect the legacy of the slave trade across the ethics in the Sub-Saharan countries. Their finding seems to disagree with the results of this study. For instance, Tables 5.4 and 5.5 above indicate that social capital positively and significantly impact GDPPC in the 18 SSC. Even though Nunn and Wantchekon's study and this study used AS and OLS estimation methods in the same context, the studies had different

rationales. For example, their study focused on the impact of the slave trade in Africa on trust among individuals while this study emphasizes the explanation of income disparities between developed and developing countries. Also, this study employed more extended period of study than theirs in explaining the slow and erratic economic development in SSC. Also, Bjørnskov (2012) in row number 2 in Appendix 2 researched how social trust affects economic growth. His trust data was sourced from the five waves of the WVS data. See Appendix 2 for more details on sources of data. He used 1SLS, 2SLS, and 3SLS regressions for analysis and concluded that social capital is a deeper determinant of economic development than any of the other variables used in his study. Bjørnskov's study differs from this study concerning context and estimations techniques. Nevertheless, his finding that cultural trait of social capital determines economic development seems to be similar to the finding discussed in sub-section 5.3.4.4 above. Furthermore, Granato et al. (1996a), as indicated in Appendix 2 article 5, embarked on research on whether cultural values have an effect on economic development among countries. They used WVS data of 1990 to generate their achievement motivation and post-materialists' values. Their study aimed to find out if components culture has effects on economic development. Moreover, they concluded that both economic and cultural variables are necessary to enhance economic development. Their findings are like this study's findings that cultural values have an essential role in explaining economic development among countries. The components of culture used in this study are different and are generated from the different data source. The data sources they used are not consistently collected in SSC, while in developed countries WVS data sources are readily and consistently available. The studies in Appendix 2 have some similarities and differences not very different from the studies discussed in this sub-section. All in all, the findings in this chapter raise some theoretical issues briefly highlighted in the next sub-section.

5.3.6 Performance of human capital after controlling cultural variables

Further exploration in this chapter regarding human capital is undertaken in Table 5.8 below by comparing the performance of human capital in column (2) model with all the three categories of variables with a model in column (3) without cultural category. The results show that there are changes in human capital performance when cultural variables are controlled. For instance, human capital's unstandardized coefficient is higher in a model with all variables categories than in OLS2 model without cultural variables. Also, the significance of contribution is higher in a model with all categories (**) than in the model without a cultural category (*). The effect size in a model with cultural variables in column (2) is about two times more effective than column without cultural variables in column (3). Hence, cultural variables affect the productivity of human capital. These cultural variables not only affect the productivity of human

capital but other variables as well. What do these results mean to definitions of human capital? Of course, quality education impacts the productivity of human capital, but also human capital productivity depends on the socio-political structures in the countries. See more explanation in chapter 2 section 2.6. These are formed from the values and beliefs that determine the behaviors of people in the countries. So, these are reflected in some cultural and institutional variables in Table 5.8 below.

Table 5.8: Comparison of variables Performance in three models

Dependent Variable: GDPPC			
(1) VARIABLES	(2) OLS with all Categories	(3) OLS No Cultural category	(4) OLS No Institutional category
Traditional			
EMP	-0.0164 (0.1331)	0.0608 (0.1340)	0.0485 (0.1238)
HDI	-0.0216** (0.0107)	-0.0179* (0.0108)	-0.0156 (0.0108)
IGS	76.8200** (38.1403)	34.6941 (37.9965)	65.0288* (37.6915)
RKN	-0.0293** (0.0149)	-0.0205 (0.0149)	-0.0304** (0.0150)
HCT	33.9346** (14.3161)	24.9214* (14.4284)	33.4265** (14.5768)
EGS	0.1319* (0.0728)	0.1379* (0.0737)	0.2045*** (0.0707)
AID	-0.1862*** (0.0716)	-0.1798** (0.0739)	-0.1883** (0.0733)
GCI	0.1076** (0.0489)	0.1270** (0.0499)	0.1007** (0.0487)
GRS	0.0403 (0.0533)	0.0420 (0.0546)	0.0129 (0.0533)
ETR	-5.5920* (3.1097)	-6.1682* (3.1865)	-6.0976* (3.1068)
Institutional			
ROL	0.0836* (0.0441)	0.0810* (0.0444)	
GEF	-6.3771*** (2.1119)	-5.9665*** (2.1081)	
COC	-130.4326*** (49.1160)	-162.1023*** (43.9136)	
Cultural			
CPR	-22.1926*** (5.2051)		-20.2450*** (5.2581)
SOC	11.9876* (7.1377)		5.7987 (6.7656)
REG	11.8196 (8.5169)		14.5181* (8.4290)
SEC	55.1315*** (13.2460)		63.5821*** (13.1672)
Constant	158.2456*** (54.8223)	174.7251*** (42.7589)	54.4952 (43.6411)
Observations	270	270	270
R-squared	0.3478	0.2809	0.3115
r2_a	0.304	0.244	0.274
Df-r	252	256	255
Df-m	17	13	14
F	7.904	7.693	8.239
P-value	0	0	0
Number of Countries	18	18	18

Standard errors in parentheses, significant levels *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Notes. OLS in column (1) is model for all the three variable categories. OLS in column (3) is a model without cultural variables while OLS in column (4) is for the model without the institutional category. This table highlights the fact that cultural variables affect the performance of other variables in the model.

5.4 CONCLUSION

The performance of variables is illustrated in Tables 5.4, 5.5, 5.6, and 5.7 above. Also, the results are discussed in section 5.3 above. Section 5.3.4.1 above notes that insecurity concerns in SSC reduce economic growth. It seems to suggest that insecurity chases investors away due to high-security costs for businesses. This leads to high numbers of unemployed people, leading to high dependency ratios derailing economic development. Surprisingly, employment in developed countries insignificantly reduces GDPPC while in developing countries though it positively impacts GDPPC, it is insignificant. Why are the results contradictory? Taking into consideration the different

outcomes of employment as indicated above, further examination is needed and will be done in a case study between Malawi and Botswana, the next chapter.

Section 5.2.4.3 observes that political participation with public involvement spirit is desperately needed in SSC. The findings in Table 5.4 above show that CPR significantly reduces economic development in 18 SSC in line with the findings of (Guiso et al., 2010). Furthermore, Table 5.6 above indicates that CPR significantly and negatively impacts GDPPCG in SlowOLS1SSC model while in the FastOLS1SSC model it insignificantly reduces GDPPCG. The reduction impact on GDPPCG in SlowOLS1SSC model is 17 times more than in FastOLS1SSC model as illustrated in columns (4) in Table 5.7 above. It seems to suggest that CPR regarding levels are much better in the FastOLS1SSC model than in SlowOLS1SSC model. See Figure 5.15 above. The finding seems to agree with the finding in chapter 4 section 4.4.4.3 whereby Figure 4.13 shows that CPR appears to be lacking in developing countries in comparison with developed countries. Hence, encouraging people to participate in politics determines the economic success of fast growth countries compared with slow growth countries.

Furthermore, section 5.3.4.5 revealed that competitiveness in Table 5.4 above significantly contributes to GDPPC in the 18 SSC. Unexpectedly, competitiveness in both SlowOLS1SSC and FastOLS1SSC models in Table 5.6 above insignificantly contributing to GDPPCG. However, GCI impact on the FastOLS1SSC model is almost two times more effective than in SlowOLS1SSC as demonstrated in Table 5.7 above. In contrast, Figure 5.18 above indicates that slow growth countries have higher levels of GCI than fast-growth countries. Likewise, in chapter 4 in Tables 4.7 and 4.8 competitiveness, although significantly contributes to GDPPC in both slow and fast-growing developing countries, the impact is two times more effective in slow growth than fast-growth countries. That seems to be confirmed by graph 1 in Figure 5.18 whereby slow growth countries have higher GCI levels than fast-growth countries. The question is why in both scenarios the slow growth countries competitive spirit seems to perform better than in fast-growth countries? It will be explored further in chapter 6 the case study for Malawi and Botswana.

Besides, AID seems to increase dependency syndrome in SSC. The discussion in section 5.3.4.6 above suggests that AID in SSC reduces GDPPC significantly. Graph 4 in Figure 5.16 above shows that the relationship between AID and GDPPC is negative in SSC over the period from 2001 to 2015. Why? The finding seems contradictory to the assumption of the neoclassical theory that the accumulation of capital stock significantly increases economic growth in the countries. It is reported in the literature that in SSC AID averages about 44 % of governments' budgets (Klugman, 2010). Graph 4 in Figure 5.16 above shows that the relationship between AID and GDPPC is negative. That

seems to agree with Landes (1998) who argued that the economic development of countries does not rely on foreign aid but the imbued capacity the citizens have to deal with context challenges. Hence, the finding in section 5.3.4.6 seems to suggest that SSC need to cultivate the spirit of self-reliance to change the slow and erratic economic growth in the countries.

Furthermore, section 5.3.4.7 above observes that entrepreneurship significantly reduces economic development in the SSC. The negative relationship between entrepreneurship and GDPPC is reported in the literature (Carree et al., 2007; Wennekers et al., 2010). Also, Freytag and Thurik (2007); Van Stel et al. 2005 attributed this negative relationship to low levels of business formation across countries in the region. Figure 5.20 above illustrates low levels of entrepreneurship in SSC. That seems to suggest that cultural aspects in the region are attributable to low entrepreneurship levels as suggested by (Freytag and Thurik, 2007, p. 12; Boettke and Coyne, 2009, p. 137). Therefore, promoting more entrepreneurship value preferences in the SSC could increase the ability to create economic activities that can nurture the productivity of the countries to propel economic growth. Also, the results in Tables 5.3 above show that human capital contributes to GDPPC significantly in 18 SSC. However, after grouping the 18 SSC into slow and fast-growing countries, human capital significantly contributes to GDPPC in slow growth countries, while in the fast-growing countries it insignificantly contributes to GDPPC. The impact of human capital on SlowOLS1SSC model is six times more effective than in the FastOLS1SSC model. It seems to suggest that HCT though prominent in the 18 SSC does not explain differences in economic growth between SlowOLS1SSC and FastOLS1SSC models. In the same vein, the results in Table 5.8 above show that there are changes in human capital performance when cultural variables are controlled. For instance, the significance of human capital contribution is higher in a model with cultural variables (**) than in the model without cultural variables (*). Hence, cultural variables affect the productivity of human capital as reported in the literature (Bangwayo-Skeete et al., 2011; Hanushek and Woessmann, 2010, 2012). Therefore, education policies in SSC should be aimed to nurture productivity that is relevant to the challenges faced in this region.

Even though some of these findings relate to the existing literature, these findings essentially engage some cultural variables that are overlooked in the literature. For example, most of the studies that engaged SSC used WVS that are rarely covered in some countries in this region. Hence, using AS captures cultural variables that are relevant to the context. In this regard, a new understanding of the importance of cultural factors in explaining economic differences among countries is highlighted. At the same time, economic theories that advise policymakers on how to stimulate economic performances in SSC need to embrace prevailing perceptions in this region. Also, the

education systems should explore how cultures in the region are structured and how people in this region can creatively interact with the environment to solve the current challenges of slow and erratic economic growths as suggested by (Berry et al., 1992). That suggests that treating countries as indistinguishable by enforcing policies that have worked in other regions, only worsens the outcome as is currently witnessed by the enlarging gap in economic development between SSC and other developed regions in the world.

CHAPTER 6: A MULTI-CASE STUDY OF BOTSWANA AND MALAWI VERSUS FINDINGS IN CHAPTERS 4 AND 5

6.1 INTRODUCTION

This chapter intends to provide insight into how variables interact with each other within a given institutional, political and cultural setting and thereby seeking to drill down deeper than secondary data analysis allows. The previous two empirical chapters used secondary data, usually collected for other purposes and OLS hypothetical-deductive estimation technique for data analysis. Hence the findings are illustrated in Table 6.1 below. Therefore, it is often difficult to drill down into detailed data about the individual and unique conditions existing in any specific country at any precise time. For example, La Porta et al. (2004) point out that the findings of their research entitled “Judicial checks and balances” showed Peru had a perfect score on judicial independence, yet in reality, Peru had the persistence of authoritarian executive and rampant corruption. Therefore, differences between objective measurements captured by variables used in models and the reality such as the case in Peru is analogous to the distinction between *de jure* and *de facto* institutions as claimed by (Woodruff, 2006).

This chapter seeks to examine the findings intensely in Table 6.4 below. By taking into consideration that the intangible cultural capital (ICC) in different forms as explained in details in chapter 2 sub-section 2.3.1, is assumed that ICC is associated with the embodiment of individuals relying on broader socio-economic processes, political-economy interplay with power facilitation, and through the endurance of inequalities and the possibilities of social transformation. These ways of how ICC formed in individuals and created through the strategies such as semi-structured interviews and questionnaires (Butler and Robson, 2001; Smith and Phillips, 2001; Ley, 2003; Bridge, 2001; Bridge, 2006; Waters, 2006). Some layers of ICC such as social capital has attracted some criticism in the literature that it may not correlate with the measure of trust by attitude surveys. For example, Glaeser et al. (2000, p. 813) question standard attitudinal question in surveys that generally do not predict individual choices of behavior. However, the authors noted that attitude surveys seem to predict

trustworthiness. There is to some extent that social capital can be either be measured through trust or trustworthiness and are widely used in literature (Holt, 2008, p. 227).

For this reason, economic growth differences among countries can be explained by the views of people experiencing how political leaders interact with current changing environments. For instance, in societies where the agents of political representation objectively construct the social world, they also consider the current structures or institutions to novel their challenges. The chapter therefore strengthens and compliments the secondary data analysis executed in chapters 4 and 5.

The secondary data analysis has already been executed in chapters 4 and 5 respectively. The findings in these two chapters broadly highlight in a similar picture the factors that seem to explain economic growth differences between developed and developing countries, and sub-groups of slow and fast economic growth in chapters 4 and 5 respectively. However, understanding can be improved by investigating specific examples to identify specific causes of specific findings. For instance, education seems essential for economic growth in both chapters, but the variable does not necessarily explain whether is due to inclusive educational policies in the countries or due to investment focus on primary, secondary, or tertiary education. Therefore, the case study approach can help to intensively and thoroughly examine into the causation of the factors considered essential to explain economic growth differences among countries identified in chapters 4 and 5.

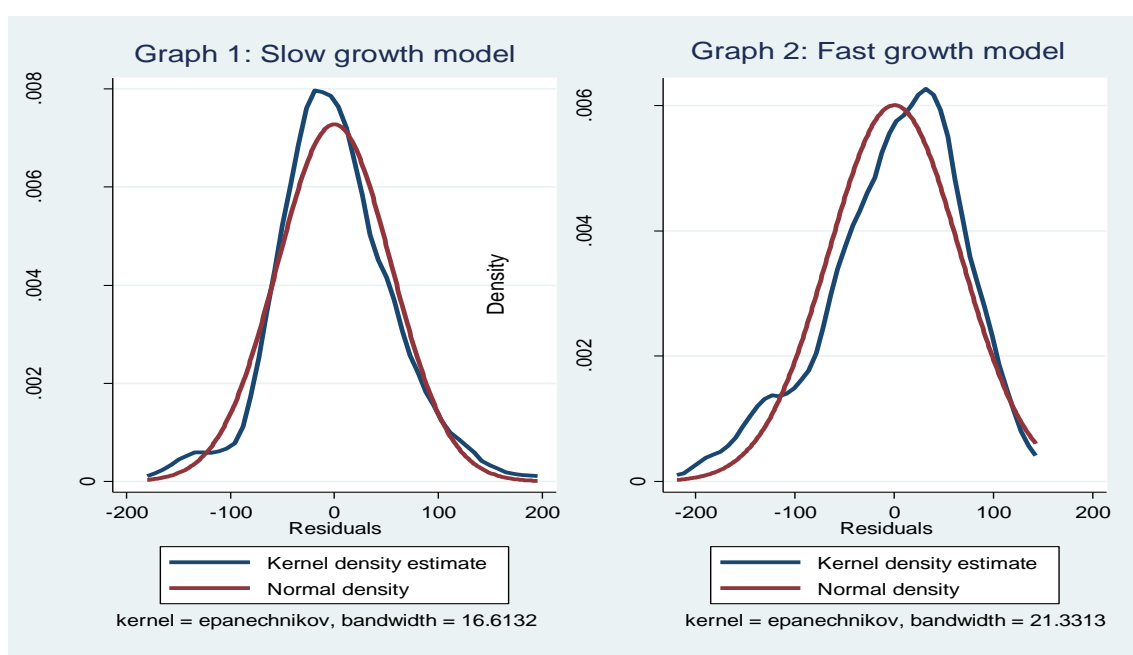
6.2 CASE STUDY: BOTSWANA AND MALAWI, WHY?

The case study focuses on two countries, Malawi from the slow growth SSC model and Botswana from the fast growth SSC model. The question is how representative can these two countries be for each case represented by slow and fast growth models? Seawright and Gerring (2008, p. 299) explain that a case that demonstrates a steady cross-case relationship is known as a typical case. Also, according to Hersen and Barlow (1976), it is possible to regard a typical case such as a slow model or fast model as a representative case (s). However, Hersen and Barlow (1976) suggest that the representativeness of a model relies on whether a model meets normality or misspecification conditions. Figure 6.1 below shows both slow and fast growth models meet the normality condition.

Furthermore, the misspecification of a model is shown by the linktest command after running slow and fast growth models respectively. The results indicate `_hatsq`'s p-value for slow model = 0.889 which is more than 0.05 indicating no misspecification. Also, in fast model `_hatsq`'s p-value is 0.982 more than 0.05 showing no misspecification. See further explanation in sub-section 3.5.1.2 in chapter 3. The fast and slow models have passed normality and misspecification tests, hence, they can be typical cases, and their respective representation is further illustrated in figure 6.2 below. For instance,

according to Seawright and Gerring (2008), a Large N technique can be used to identify a typical case from a potential of large population cases by a low residual case in each model. For example, after running the regression, in both models, the distance between the observed and predicted values for all cases in respective modes is what is called residual (s). In this situation, it is often noted that there would be countless cases with identical low near-zero residual. Alternatively, in other instances, many cases might have high near-zero residuals. The differences in the residues might highlight some problems within cases which might need further probes.

Figure 6.1: Normality graphs in slow and slow growth models



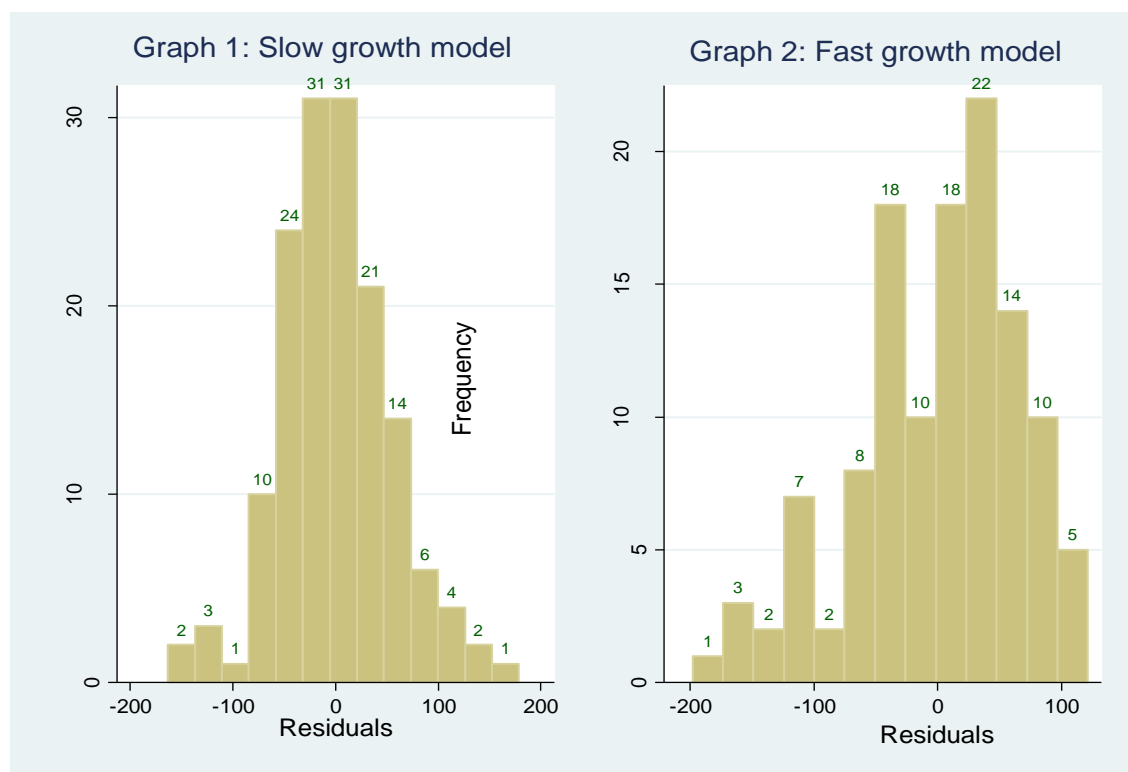
Notes. Both graphs 1 and 2 meet the normality conditions.

Figure 6.2 below in graph 1 shows the frequencies of residuals very low are more than those slightly above zero. This shows that the difference between the observed and predicted values of residuals of GDPPC growth as explained by the independent variables is more negative than positive. Frequencies below zero are about 85 versus 65 that are above zero. Hence, according to Seawright and Gerring (2008), many cases are below zero and becomes identified more as slow growth than fast growth. For this reason, any case within the model might represent others for further analysis as a typical case. Equally, graph 2 in Figure 6.2 indicates that there are 136 frequencies above zero while only 51 below zero. Hence, the model is identified as fast growth than slow growth. Therefore, any case in fast growth model might help to explain the discrepancies if any in the model as a typical case. However, using mean to categorize economic growth of countries may not be representative since not all countries possibly were close to that mean in the slow growth model. Alternatively, in the fast growth model some countries

possibly just crossed the mean demarcation. Hence, to ensure further representativeness exploration in countries in each group was conducted.

Figure 6.2: Frequencies of residuals in slow and fast growth models

Notes: Frequencies of residuals in each model.



Further examination of variables in the models indicated that Botswana had highest average scores of competitiveness index (GCI) and the exports of goods and services (EGS) over time while other variables were relatively not very different to other countries in the fast-growing group. On the other hand, in the slow-growing group, Malawi had the average scores of GCI and EGS comparing to other countries in the same group. Therefore, to maximize explanation of the variances of economic growth between slow-growing and fast-growing countries, Botswana and Malawi were chosen as representative. The comparison of the performances in economic growth of the two countries may provide explanations as to how slow growth countries can boost the growth of their economies. Hence, countries such as Botswana and Malawi are purposively sampled as recommended by Guarte (2006) after indications that the two countries have remarkable differences in the variables that explain economic growth differences as shown in Figure 6.2 above which each country represent. That seems to agree with the classification regarding GDPPC, GNI by UN. For instance, Botswana is classified in the upper-middle-income category while Malawi is the low-income category (United Nations, 2013). Therefore, the differences in development levels of these countries while belonging to the same region will help to dig deeper into the findings in

chapters 4 and 5. The in-depth investigation relies on multiple sources of evidence as suggested by (Yin, 1994, p. 13). Hence, this multi-case study compliments secondary data analysis by seeking to understand how individual variables, circumstances, institutions and environment interact with each other in specific national settings to produce measured effects (Darke et al., 1998, p. 277; Popper, 2014).

Consequently, for this chapter to accomplish further investigation of the findings as indicated in Table 6.5 below. Sections 6.1 and 6.2 are covered above, the analysis and discussions of the findings will immediately follow section 6.3. The Section will give essential information about the economies of Botswana and Malawi, the location of the countries, historical information covering the periods before and after independence and the demographics in both countries. Section 6.4 introduces the findings in Table 6.4 below. The outcome of the analysis is briefly discussed and concluded in section 6.5 below.

Table 6.1: Performance of variables in chapter 4 (OLS3), chapter 5 (OLS1), Slow OLS1 & fast OLS2 models

Rank	Dependent Variable: GDP per capita (GDPPC)						Dependent Variable: GDP per capita growth rate (GDPPCG)					
	OLS3 (developing chapter 4)			OLS1SSC (chapter 5)			SlowOLS1SSC (chapter 5)			FastOLS1SSC (chapter 5)		
	Independent Variables	Standardized Coefficients	Eta^ (%)	Independent Variables	Standardized Coefficients	Eta^ (%)	Independent Variables	Standardized coefficient	Eta^ (%)	Independent Variables	Standardized Coefficient	Eta^ (%)
1	GCI***	0.81	18.13	SEC ***	0.54	4.9	SEC***	0.97	15.34	REG**	0.42	4.93
2	FER***	0.31	4.79	GCI **	0.18	1.3	HCT***	0.38	3.59	ROL*	0.31	3.30
3	GEF***	0.27	4.94	HCT **	0.18	1.6	SOC**	0.24	2.00	GCI	0.19	1.35
4	SOC**	0.24	2.42	IGS**	0.15	1.1	EGS*	0.23	1.54	SOC	0.15	0.58
5	CPR	0.21	0.77	EGS *	0.14	0.9	GCI	0.16	0.92	SEC	0.15	0.29
6	TED*	0.12	1.23	ROL*	0.14	1.0	IGS	0.16	1.05	HCT	0.14	0.61
7	FDI	0.12	1.17	SOC*	0.14	0.8	GRS	0.10	0.70	IGS	0.07	0.17
8	EMP	0.08	0.49	REG	0.09	0.5	EMP	0.06	0.17	COC	0.04	0.05
9	ROL	0.07	0.28	GRS	0.04	0.1	REG	0.06	0.30	EMP	0.03	0.02
10	EGS	0.01	0.01	EMP	-0.01	0.0	HDI	0.04	0.12	EGS	0.03	0.03
11	GRS	0.01	0.01	HDI**	-0.12	1.1	ETR	0.03	0.03	RKN	0.02	0.02
12	HDI	-0.00	0.00	ETR*	-0.13	0.9	GEF	0.01	0.00	GRS	-0.02	0.02
13	IGS	-0.05	0.10	AID***	-0.14	1.9	ROL	-0.05	0.07	AID	-0.12	1.24
14	ETR	-0.07	0.25	RKN**	-0.15	1.1	AID**	-0.16	2.38	HDI*	-0.18	2.07
15	HWK	-0.14	0.84	COC***	-0.20	2.0	COC***	-0.25	2.93	ETR*	-0.23	1.99
16	REG***	-0.53	3.62	GEF***	-0.22	2.6	RKN ***	-0.53	7.66	GEF**	-0.28	4.15
17	RKN***	-0.70	5.28	CPR ***	-0.62	5.1	CPR ***	-1.15	16.40	CPR	-0.31	0.99

Significance levels *** p<0.01, ** p<0.05, * p<0.1

Notes. Performance of variables ranked by standardized coefficients in chapter 4 for developing countries model, chapter 5 model for 18 SSC, 10 Slow growth and 8 Fast growth models for SSC.

6.3 BACKGROUND FACTS OF BOTSWANA & MALAWI

The summary of economic development information of Malawi and Botswana is presented in Table 6.2 below.

Table 6. 2: Essential information about Malawi and Botswana

(1) No.	(2) Type of	(3) Malawi						(4) Botswana					
1	Area	118,484 km ²						582,000 km ²					
2	Population (2014 est)	17.3 million						2.1 million					
3	Geographical group	Southern Africa						Southern Africa					
4	Stage of Industrialization	Least Developed Countries						Other Developing countries					
5	Manufacturing Value Added (MVA) (2015) *	803.9 million						1,000.6 million					
6	Major manufacturing activities	1. Food and beverages (47%) 2. Tobacco products (20%) 3. Chemicals and chemical products (10%)						1. Furniture; manufacturing n.e.c. (58%) 2. Food and beverages (30%) 3. Textiles (3%)					
7	(Value added in % to total MVA)	22%						25%					
8	Share of manufactured exports (2013)	135 (of 143 ranked)						79 (of 143 ranked)					
9	GDP (2015) *	8,451.9 million						17,250.4 million					
10	Total manufacturing: value added in % to output	2005 25.97		2012 22.89				2005 23.30		2013 25.07			
11	GDP composition by end use	Household consumption		75.1%		Household consumption		46.1%		Government consumption		17.1%	
		Government consumption		17.4%		Government consumption		17.1%		Investment in fixed capital		29.5%	
		Investment in fixed capital		11.9%		Investment in fixed capital		29.5%		Investment in inventories		6.9%	
		Investment in inventories		2.6%		Investment in inventories		6.9%		Exports of goods and services		52.4%	
		Exports of goods and services		42.6%		Exports of goods and services		52.4%		Imports of goods and services		-52% 2016 est.	
		Imports of goods and services		-49.6% 2016 est		Imports of goods and services		-52% 2016 est.					
12	GDP composition by sector of origin	Agriculture: tobacco, sugarcane, cotton, tea, corn, potatoes, cassava (manioc, tapioca), sorghum, pulses, groundnuts, Macadamia nuts; cattle, goats		32%		Agriculture: livestock, sorghum, maize, millet, beans, sunflowers, groundnuts		1.8%		Industry: diamonds, copper, nickel, salt, soda ash, potash, coal, iron ore, silver; livestock processing; textiles		29.8%	
		Industry: tobacco, tea, sugar, sawmill products, cement, consumer goods. Note: industrial production rate is 4% compared to world 55%.		17.5%		Industry: diamonds, copper, nickel, salt, soda ash, potash, coal, iron ore, silver; livestock processing; textiles		29.8%		Services		68.4% 2016 est.	
		Services:		50.5% 2016 est.		Services		68.4% 2016 est.					
13	Labour force	5.747 million (2007 est.)						1.177 million (2016 est.)					
		Labour force: agriculture		90%		Labour force: agriculture		NA%		Labour force: services & industry		NA%	
		Labour force: services & industry		10% (2003 est.)		Labour force: services & industry		NA%					
14	Gross Domestic Product (GDP) average annual real growth rate (in %) in 2 periods compared internationally	2005-2010			2010-2015			2005-2010			2010-2015		
		MWI	LIC	World	MWI	LIC	World	BW A	UM C	World	BWA	UMC	World
		15.88	5.74	2.41	3.21	7.17	2.86	9.23	2.17	2.41	3.75	1.31	2.86
15	MVA average annual real growth rate (in %) in 2 periods compared internationally	2005-2010			2010-2015			2005-2010			2010-2015		
		MWI	LIC	World	MWI	LIC	World	BW A	UM C	World	BWA	UMC	World
		6.99	6.26	2.27	4.19	5.89	2.49	2.99	4.03	2.27	4.82	2.30	2.49
16	MVA per capita * compared internationally in 2005 & 2015	2005			2015			2005			2015		
		MWI	LIC	World	MWI	LIC	World	BW A	UM C	World	BWA	UMC	World
		46	72	1,493	47	92	1,630	415	1,189	1,493	487	1,196	1,630

*(at constant 2010 prices in US\$)

Notes. The number of rows from 1 to 10 and 14, 15 and 16 in green color in column (1) have information sourced (UNIDO, 2013). The rows from 11 to 13 in sky blue in the same column (1) for each country are from (CIA WORLD FACTBOOK: BOTSWANA, 2017) and (CIA WORLD FACTBOOK: MALAWI, 2017).

6.3.1 The location of Botswana and Malawi

Table 6.2 above in row 1 shows each country area in columns (3) and (4) respectively. The area size for Malawi is 118,484 km² and its population is about 17.3 million people. Similarly, Botswana's land area is 582,000 Km², and its population is about 2.1 million people. The geographical locations for Malawi and Botswana are illustrated in Figure 6.3 below. Malawi is in South East Africa, a landlocked country bordering Tanzania in the northeast, Zambia in the northwest, Mozambique in east, south, and west. It was formally known as Nyasaland and got its independence from Britain in 1964. Malawi has a lake with its surface area of about 29, 000 Km², about 24.5% of the country's area. Botswana is also a landlocked country in Southern Africa. Botswana was formally known as British protectorate of Bechuanaland and in 1966 became independent, and borders Zimbabwe to the northeast, South Africa to the east and south, Namibia to the north and west, and touches Zambia at one spot on the Zambezi River in the north. According to Acemoglu et al. (2001, p. 9), about 84% the area of Botswana area is Kalahari sand, and 80% of the population live in a long strip of land in the east of the country beside the rail line which connects South Africa and Zimbabwe.

6.3.2 Historical information for the countries

According to Tough (2009), before independence Sub-Saharan countries (SSC) experienced colonization by mostly European countries. Moreover, some scholars claim that political systems established by colonial powers in colonized countries depended on whether or not they settled in these colonized countries (Robinson, 1965). However, it is also reported that in most of SSC, after attaining their independence from colonial masters, social differences between the ruled and the rulers arose (Tough, 2009). These social differences could not be addressed due to suppression by autocratic leaders as highlighted by (Pachai, 1973; Roberts, 1976).

It is reported in the literature that there is historical continuity of impoverishment of the country in pre-colonial and post-colonial periods (Bertocchi and Canova, 2002; Lwanda, 2006). In both periods chiefs who are traditionally respected leaders in almost every tribe in Malawi were tamed and marginalized in political and socio-economic matters of the country (Beraho, 2007; Lwanda, 2002, 2006; Ribot, 2002). Hence, traditional chiefs are not useful as catalysts for the socio-economic and political transformations of their people, as suggested by (Chinsinga, 2006). Because of this, most of the population of Malawi are in subsistence economy category whereby the

political elites have a more significant influence upon the socio-economic development of the nation (Pryor, 1990). For example, McCracken (1977) observed that the elites who took over from the British in 1961 repeated the misuse of scarce national resources to their advantage. Hence, these elites combined political power and economic power that increases inequalities among people (Phipps, 1972).

Acemoglu et al. (2002) argue that Botswana has succeeded economically not because colonizers left favorable institutions but because of good policies advanced by post-independence leaders (Good, 1992; Harvey and Lewis, 1990; Leith, 2000). Parsons (1979) noted that post-independence leaders such as Presidents Khama and Masire made critical decisions in the direction of the country for the better, both economically and politically. Schapera (1940) claimed that Tswana chiefs developed institutions and political structures that limited the power of the post-independent elites, hence, these leaders were held accountable and effective. Robinson and Parsons (2006) also commented that Botswana is prosperous in developing its institutions and political structures because the Tswana chiefs were limited in number and they easily integrated other tribes, for example, Kalanga, eventually resulting in the formation of Botswana state. Moreover, these chiefs were highly respected because they treated their people well and protected them from foreign invasions (Beaulier, 2003). Parson (1984) observed that parliament in Botswana is empowered to make laws for peace and order. From the discussion above, one thing that remains consistent is the embedding of indigenous culture with political systems, which promote accountability and respect of the law.

Figure 6.3: Southern African Development Community (SADC)



Notes. Botswana and Malawi are both members of SADC economic region

6.3.3 Demographics in Malawi and Botswana

In this multi-case study, the age distribution of Malawi and Botswana is demonstrated in Table 6.3 below. The age distribution is in three categories in both countries namely: 0-14 years, 15-64 years, and 65+ years. The data for age distribution is only available in the years 2014 and 2015 in both countries (Malawi and Botswana), and data is obtained from (African economic outlook, 2017).

Table 6.3: Age distribution (%), Mortality, and fertility rates in both countries

	Botswana		Malawi	
Distribution by age (%)				
Age group	2014	2015	2014	2015
0 -14	33.26	32.00	45.02	45.16
15 - 64	63.04	64.40	51.74	51.40
65+	3.69	3.60	3.24	3.44%.
Mortality and fertility rates				
	2014	2015	2014	2015
Total fertility rate (per	3	3	5	5
Mortality under age 5	38	42	114	62
Infant mortality rate per	30	44	84	43

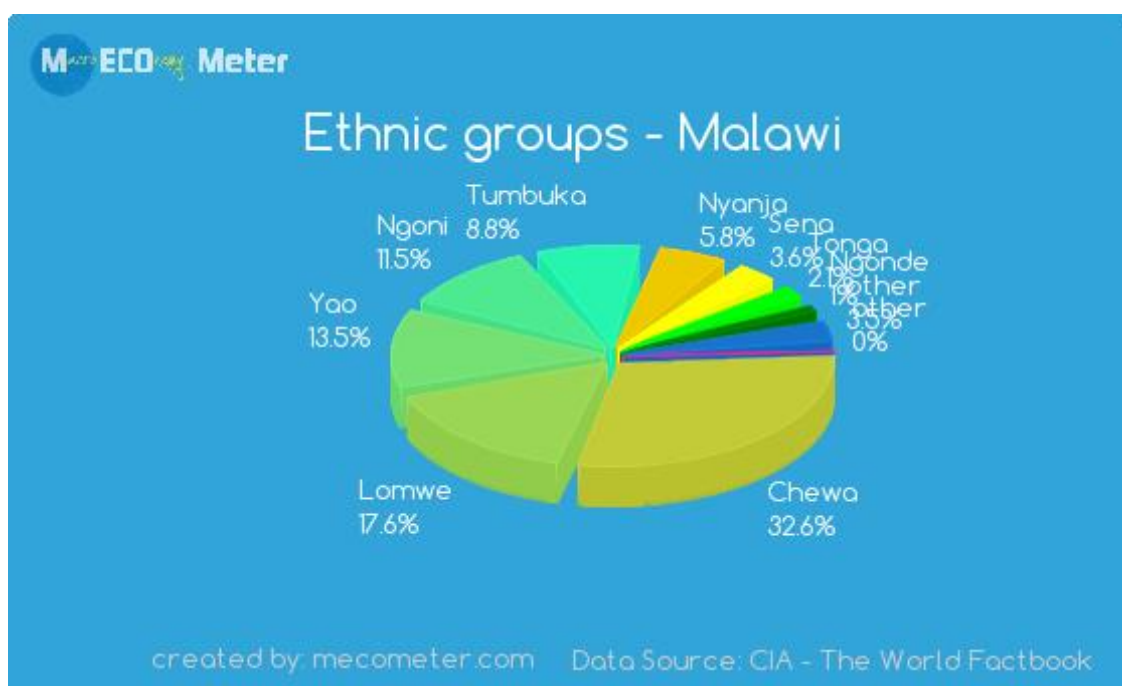
Notes. Botswana has a higher distribution of age in group 15 to 64 than Malawi while Malawi has higher distribution in 0 to 14 age group. Malawi has higher birth and mortality rates than Botswana.

Table 6.3 above shows that mortality rates for under age 5 per 1000 women in both countries in the year 2014 are 114 children for Malawi and 38 children for Botswana. The mortality rate in Malawi is about three times more than in Botswana. On the other hand, the infant mortality rates per 1000 women in Malawi and Botswana in 2014 were as follows: 84 in Malawi, 30 in Botswana. Again, more infants died in Malawi than Botswana per 1000 women. Unexpectedly, in the year 2015 the infants who died reduced to 43 per 1000 women from 84 in Malawi, while in Botswana infants deaths were increased by 4 per 1000 women from the previous year. The death of infants in Malawi in the year 2015, though reduced, is still much higher than the death of infants in Botswana. The higher death of infants in Malawi could be explained by higher fertility rates as shown in Table 6.3 above.

6.3.4 Ethnic groups in Botswana and Malawi

The structures of tribes in Malawi and Botswana are very different. For instance, Figure 6.4 below shows the ethnic groups and their composition in Malawi. That shows that Malawi has many more ethnic groups than Botswana as shown in Figure 6.5 below. These differences in the racial composition may contribute to different historical settings and formation of the institutions in Botswana and Malawi as explained in sections 6.3.2 above. The data for both countries (Malawi and Botswana) for ethnic groups is sourced from (Mecometer, 2017).

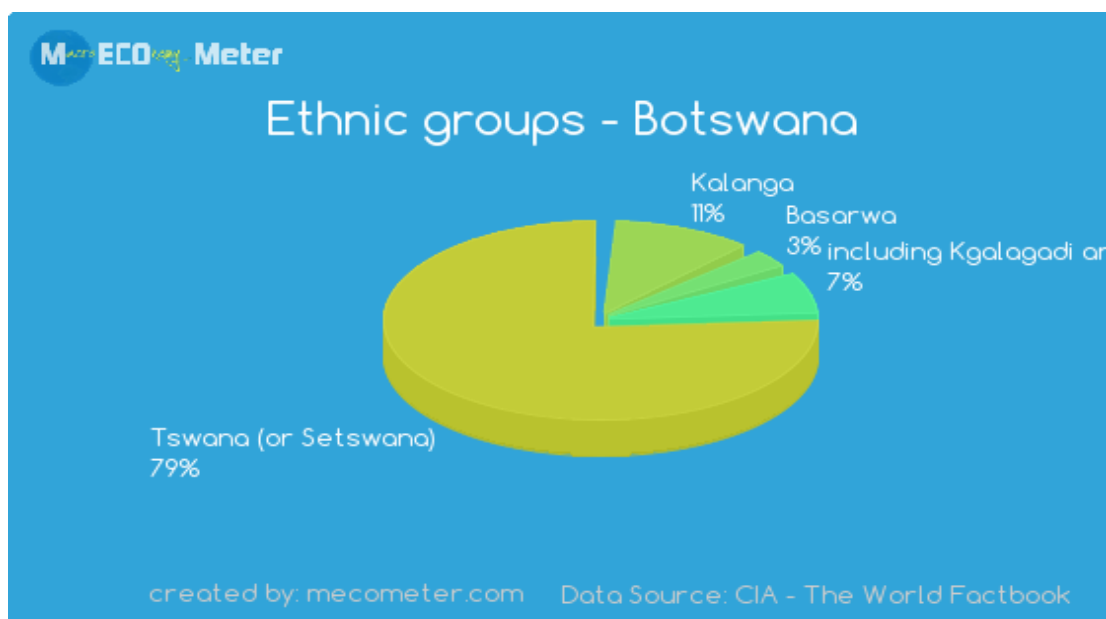
Figure 6.4: Ethnic groups in Malawi



Notes. The figure shows that the largest ethnic group is Chewa with 32.6%; Lomwe ethnic group is second with 17.6%; Yao is third with 13.5%; Ngoni is fourth with 11.5%; Tumbuka is next with

8.8%. The other smaller ethnic groups are as follows: Nyanja with 5.8%; Sena with 3.6%; Tonga with 2.0%; Ngonde with 1,9%; other ethnic groups combined comes to 3.5%.

Figure 6.5: Ethnic groups in Botswana



Notes. Tswana has the largest ethnic group with 79%; the next ethnic group is Kalanga with 11%; then Kgalagadi on 7%; and lastly Basarwa on 3%.

6.4 EXPLORATION OF THE KEY FINDINGS

The close examination of the variables follows the ordering of the findings as indicated in Table 6.4 below. However, in the process of close examinations of the variables, the categories of variables may not apply, and evidence could come from different sources of data other than surveys. The procedures followed in data preparation and analysis are highlighted in section 3.6 in methodology chapter 3.

Table 6.4: The findings in chapters 4 and 5 calling for further exploration

(1)	(2)
Finding ranking	The main findings overarching chapters 4 and 5
1	Governance (Utility capacity) as a crucial element of economic growth
2	Social capital necessary for growth in developing countries
3	Foreign aid versus Self-reliance or dependency versus economic growth
4	Competition good for economic growth in Africa
5	Security and economic growth
6	Human capital versus economic growth

Notes. Column (1) shows the ranking of findings as presented in this chapter, while column (2) indicates the findings in chapters 4 and chapter 5.

Firstly, governance in slow and fast-growing countries is proxied by the rule of law (ROL), government effectiveness (GEF), and control of corruption (COC) the impact of these attributes on economic growth differs between the groups. For instance, ROL significantly impacts economic growth in fast-growth countries while in slow growth countries insignificantly reduces economic growth. On the contrary, GEF significantly reduces economic growth in fast-growth countries while in slow-growth countries insignificantly contributes to economic growth. On the other hand, COC reduces economic growth significantly in slow growth countries while in the fast-growth group insignificantly enhances economic growth. These findings suggest that governance attributes seem to influence economic growth differences between the two groups. Hence, this study is going to explore whether the differences in the performance of the governance attributes depends on other factors. If this can be the case, then what factors enhance more economic growth whereby the countries in the slow growth can adopt to enhance their economies.

Secondly, the findings also indicate that social capital (SOC) impacts economic growth significantly in slow-growth countries while in fast-growth countries enhance economic growth insignificantly. The effect size of SOC on economic growth is three times more in slow-growth than in fast-growth. However, the fact economic growth is higher in the fast-growth group; it seems to suggest that SOC may not be that important for economic growth. Hence, exploring the real context in Botswana and Malawi might suggest approaches that might help Malawi or slow-growing countries to enhance their economic growth. While on the same, civic capital (CPR) is also included in the category of social capital but specified differently in Table 6.1 above shows that CPR significantly reduces growth in slow-growth countries while in fast-growth countries insignificantly reduces economic growth. What is fascinating with CPR is that the effect size of reduction on economic growth is approximately seventeen times more harmful in a slow-growth group than in a fast-growth group. What is it that the slow-growth countries do that erodes economic growth gained due to the combination of other factors? Is there anything the fast growth country (Botswana) do to avoid such substantial negative impact on their economy? Stimulating economic growth in slow growth countries is important.

Thirdly, the finding in Table 6.1 above shows that foreign aid (AID) significantly reduces economic growth in the slow-growth group while in fast growth insignificantly reduces economic growth. The negative impact on economic growth in slow-growth countries is twice as much than in fast-growth countries. It is, therefore, essential to understanding what causes Aid to be more effective in fast-growing countries than in slow growth countries. Can the donors encourage the approaches implemented in fast groups to boost economies in slow growth countries? Alternatively, are there other

factors that need changing to enhance economic growth in slow growing economies? The exploration of this finding in Malawi and Botswana can shade some light to enhance the economic performance of Malawi or other countries in the same group.

Fourthly, even though competitiveness index insignificantly and positively contributes to economic growth in both slow and fast-growth countries, the variable seems essential. For example, GCI significantly impacts economic growth in OLS2(developed), OLS3(developing), and OLS1SSC models as indicated in Tables 4.5 and 5.5 in chapter 4 and 5 respectively. Also, Botswana has very high levels of competitiveness index than all the countries in the fast group. Therefore, examining GCI could help to identify whether is the critical determinant of the economic success story in Botswana. Moreover, how does GCI help Botswana to achieve sustained economic growth in the country? Hence, examining the conditions between Malawi and Botswana could help to identify some causes of weak economic growth in the country.

Fifthly, it has been noted that security (SEC) significantly reduces economic growth in slow-growth countries than in fast-growth countries. It is, therefore, essential to explore whether security issues in Malawi and Botswana have any effect on economic growth differently. For example, does FDI depend on the security conditions prevailing in the country? What can Malawi learn from Botswana how to deal with security problems? Lastly, human capital (HCT) impacts economic growth positively and significantly in slow-growth countries while in fast-growth countries insignificantly. Why in slow-growth group HCT significantly contribute to economic growth? Other factors will be explored in Malawi and Botswana that causes productivity differences of HCT among countries.

6.4.1 Governance (Utility capacity) key element of economic growth

Generally, it is accepted that economic success of countries rests on good governance steered by effective leadership and sound institutions where best decisions for best outcomes for the society are made (North, 1990; Knack and Keefer; 1995, 1997; Acemoglu et al., 2001; Rodrik et al., 2004). However, the cause of effective leadership and institutions seems elusive. For instance, Rindermann et al. (2015) suggest that good governance relies on the thinking capacity of the entire society. They related cognitive capital to the competitiveness of the countries, innovation, and degree of economic freedom. Also, Givens (2013) notes that the proxy of good governance used in most of the studies in literature is unidimensional that fails to capture some categories of governance that are important for economic success in one society while in other society is not. Hence, he used the multidimensional approach of governance which he claims is more useful to explain economic success than a unidimensional approach. The concern of governance representation in literature is also shared by (Mimicopoulos et al., 2007; Ravallion, 2010).

However, the upshot of the findings in Table 6.1 above governance is captured by three variables like GEF, ROL, and COC (see Table 3.2 for more details). The findings indicate that the proxy variables for governance perform differently in the models for chapter 4 for OLS3 (developing) model, chapter 5 for OLS1SSC, SlowOLS1SSC, and FastOLS1SSC (See Table 6.1 above). For instance, in OLS3 (developing) model in chapter 4, GEF significantly contribute to GDPPC; in OLS1SSC model for chapter 5, GEF significantly reduces GDPPC; GEF insignificantly enhances GDPPCG in SlowOLS1SSC while in FastOLS1SSC significantly reduces GDPPCG.

Furthermore, ROL as a proxy for governance in OLS3 (developing) model insignificantly contributes to GDPPC; in OLS1SSC model in chapter 5 significantly enhances GDPPC; however, in SlowOLS1SSC model insignificantly reduces GDPPCG while in FastOLS1SSC significantly and positively impacts GDPPCG. While on the same, governance proxied as COC in OLS1SSC model for chapter 5 and SlowOLS1SSC models significantly reduces GDPPCG while in FastOLS1SSC insignificantly enhances GDPPCG. Therefore, the findings highlighted above seem to suggest that different proxies of governance perform differently in countries even after being grouped according to their level of development and economic growth status. Why?

In order to examine the governance variables above, Afrobarometer surveys are used covering the years from 2002 to 2018. Table 6.5 below indicates participants' evaluation of leaders in two indicators of governance collected by Afrobarometer Surveys from 2002 to 2018 period. The average percentage per category and number of participants participated in each survey (round) in each country are shown in column (3). In Table 6.4 below. Generally, over 50% participants in Botswana evaluated their leaders fairly well compared to only 25.8% of participants in Malawi evaluated their leaders' performance fairly well in managing the economies in respective countries over 16 years time. While on the same, 37.8% participants on average over time considered the leaders in Malawi performed very badly compared to only 9.4% in managing the economy. In the same table, about 53% of Botswana participants rated their leaders fairly well in improving the living standards of the poor people over 16 years period. In contrast, only 27% of participants in Malawi regarded their leaders did fairly well in improving the living standards of people in Malawi over a period of 16 years.

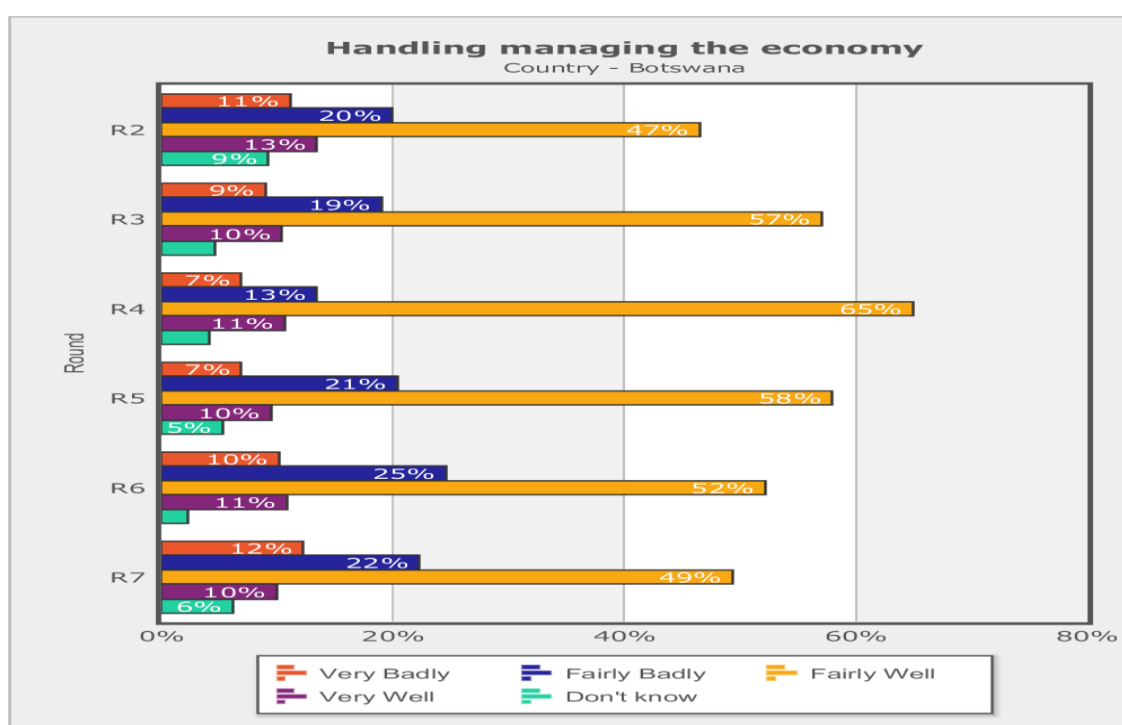
Furthermore, Figures 6.7, 6.8, 6.9, and 6.10 below play a supporting role of identifying if there patterns of interest in the participants' responses to governance indicators in column (1) in Table 6.5 below. The observations highlighted above shows that leaders in Botswana are more effective than Malawi contrary to the findings in SlowOLS1SSC (Malawi) and FastOLS1SSC(Botswana) in Table 6.1 above. The proxy for governance (GEF) significantly reduced economic growth in the FastOLS1SSC

model (Botswana as a typical case) while in Slow1SSC (Malawi as a typical case) insignificantly reduced economic growth. However, Figures 6.7 and 6.9 below for Malawi in both governance indicators in column (1) in Table 6.5 below show that in round 4 to round 5 period, participants in Malawi rated their leaders in managing economy 38% fairly well, 29% very well and are the highest scores over a period of 16 years. Why? Further examination for other governance indicators probably can also shade some institutional change in the period of five to six years (2008 to about 2012) as demonstrated in Table 6.6 below.

Table 6.5: Evaluation of leaders in Botswana and Malawi by the participants in Afrobarometer Surveys

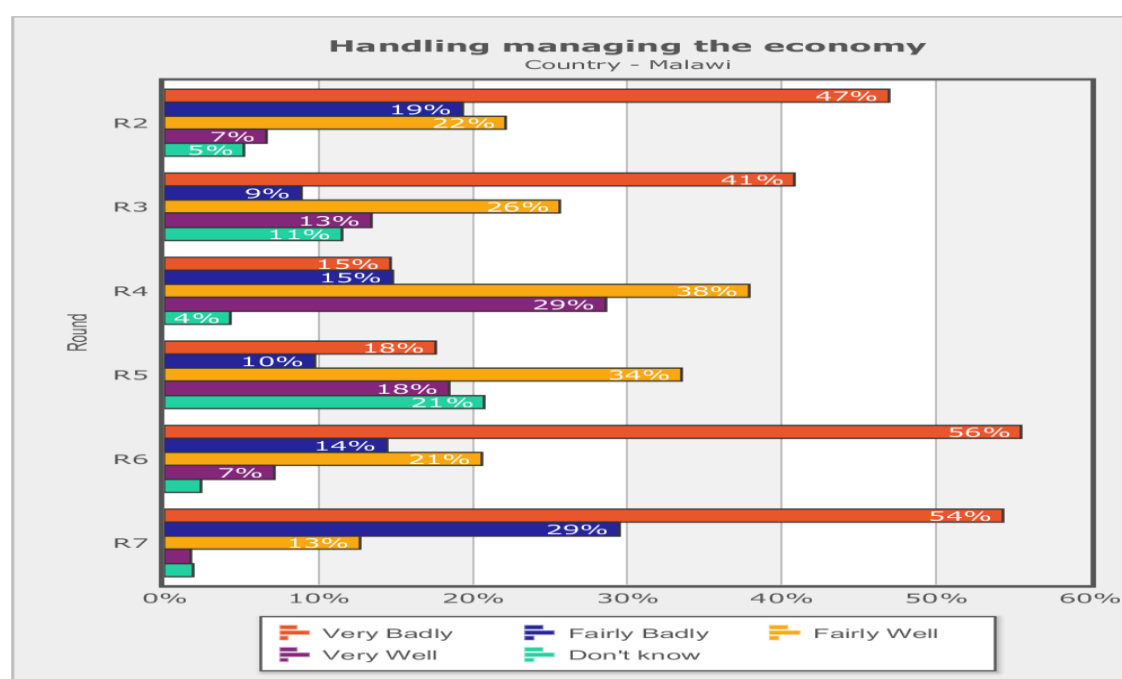
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Governance indicator	Categories	Total (%) per category	Round 1 (1999/2001)	Round 2 (2002/2003)	Round 3 (2005/2006)	Round 4 (2008/2009)	Round 5 (2011/2013)	Round 6 (2014/2015)	Round 7 2016/2018
Handling managing the economy	Botswana								
	Very Badly	9.4%		11.0%	8.9%	6.9%	6.8%	10.2%	12.3%
	Fairly Badly	20.0%		20.0%	19.0%	13.4%	20.5%	24.7%	22.3%
	Fairly Well	54.7%		46.6%	57.1%	64.9%	58.0%	52.2%	49.3%
	Very Well	10.8%		13.3%	10.4%	10.7%	9.5%	10.8%	9.9%
	Don't know	5.2%		9.2%	4.6%	4.1%	5.2%	2.1%	6.2%
	(N)	7,178 (100%)		1,200 (100%)	1,200 (100%)	1,200 (100%)	1,199 (100%)	1,200 (100%)	1,179 (100%)
	Malawi								
	Very Badly	37.8%		46.9%	40.8%	14.6%	17.5%	55.6%	54.4%
	Fairly Badly	15.1%		19.3%	8.8%	14.7%	9.7%	14.4%	29.4%
	Fairly Well	25.8%		22.1%	25.6%	37.8%	33.5%	20.6%	12.7%
	Very Well	12.6%		6.6%	13.4%	28.6%	18.4%	7.0%	1.6%
	Don't know	8.6%		5.1%	11.4%	4.3%	20.8%	2.3%	1.9%
	(N)	9,600 (100%)		1,199 (100%)	1,200 (100%)	1,197 (100%)	2,404 (100%)	2,400 (100%)	1,200 (100%)
Handling improving living standards of the poor	Botswana								
	Very Badly	9.9%				12.6%	7.6%	9.9%	9.6%
	Fairly Badly	20.4%				25.8%	17.3%	23.5%	14.9%
	Fairly Well	53.4%				53.5%	57.0%	50.5%	52.7%
	Very Well	14.8%				7.4%	16.9%	15.4%	19.5%
	Missing	0.3%				-	-	-	1.2%
	Refused	0.0%				-	-	-	0.2%
	Don't know	1.1%				0.7%	1.3%	0.7%	1.9%
	(N)	4,798 (100%)				1,200 (100%)	1,200 (100%)	1,200 (100%)	1,198 (100%)
	Malawi								
	Very Badly	33.3%				19.6%	22.3%	43.3%	48.8%
	Fairly Badly	19.3%				17.9%	18.5%	16.3%	28.1%
	Fairly Well	27.2%				40.2%	25.2%	26.2%	20.3%
	Very Well	12.3%				19.8%	13.5%	12.6%	1.8%
	Missing	0.0%				0.0%	0.1%	-	-
	Refused	0.0%				-	-	-	0.0%
	Don't know	7.9%				2.5%	20.4%	1.6%	0.9%
	(N)	7,207 (100%)				1,200 (100%)	2,407 (100%)	2,400 (100%)	1,200 (100%)

Figure 6.6. How Botswana manage the economy



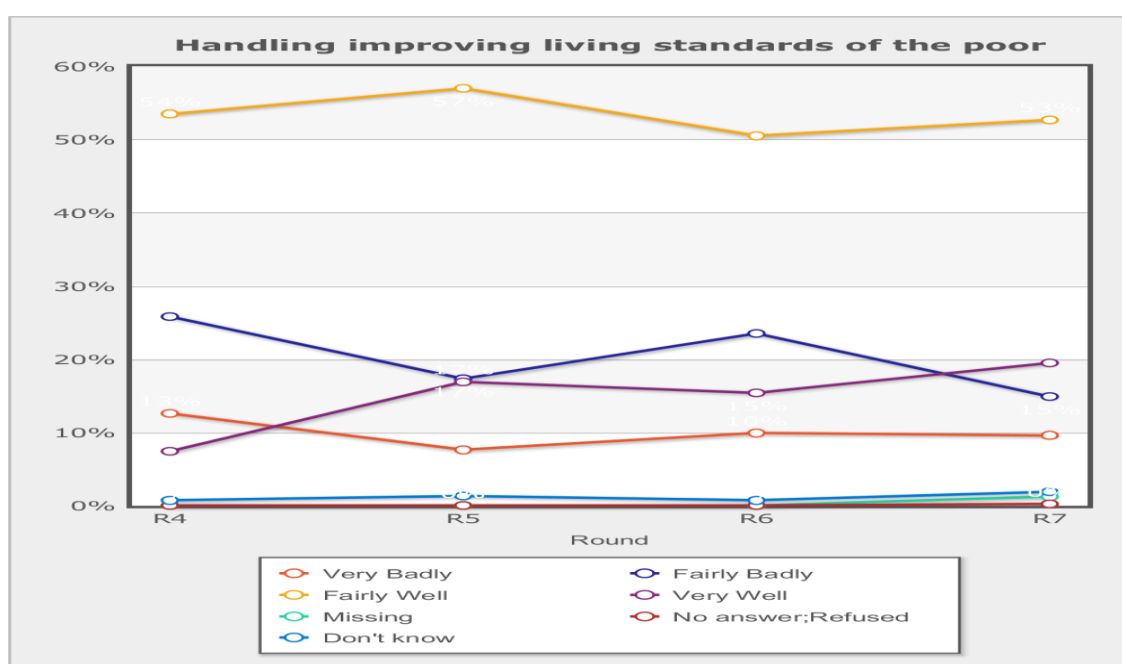
Notes. R2=2002/2003, R3=2005/2006, R4=2008/2009, R5=2011/2013, R6=2014/2015, and R7=2016/2018.

Figure 6.7. How Malawi manage the economy



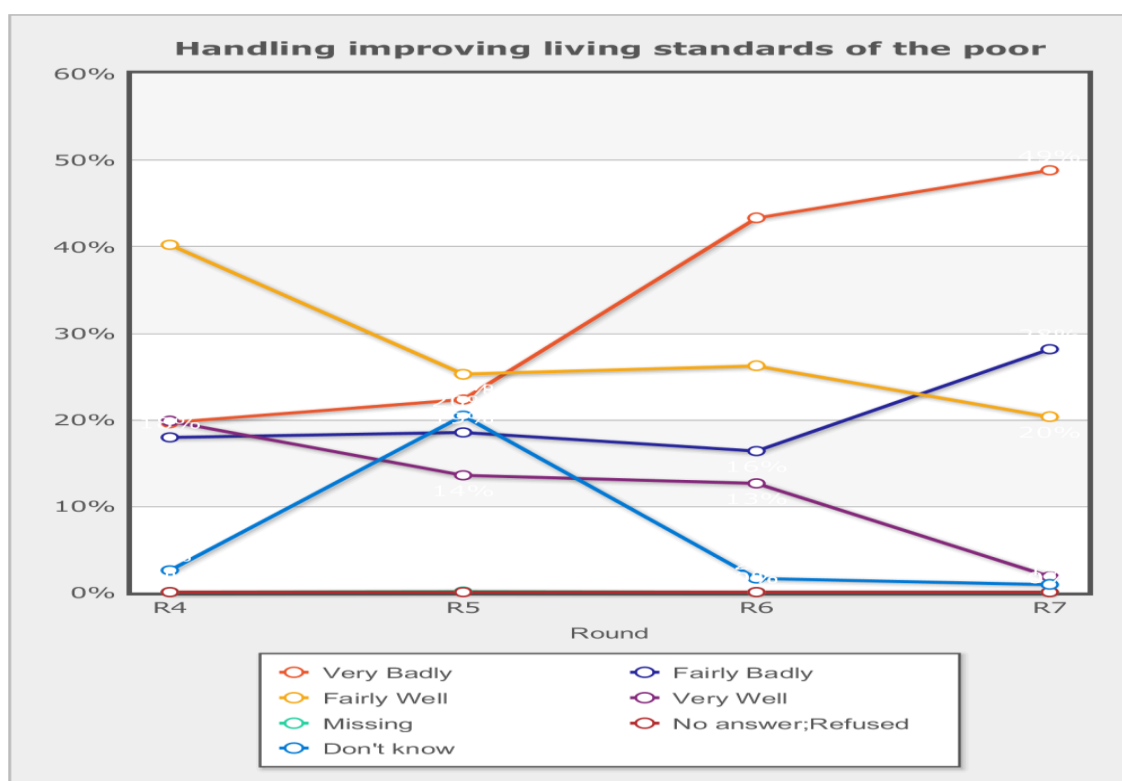
Notes. R2=2002/2003, R3=2005/2006, R4=2008/2009, R5=2011/2013, R6=2014/2015, and R7=2016/2018.

Figure 6.8: Handling improving living standards of the poor in Botswana



Notes. R4=2008/2009, R5=2011/2013, R6=2014/2015, and R7=2016/2018.

Figure 6.9: Handling improving living standards of the poor in Malawi

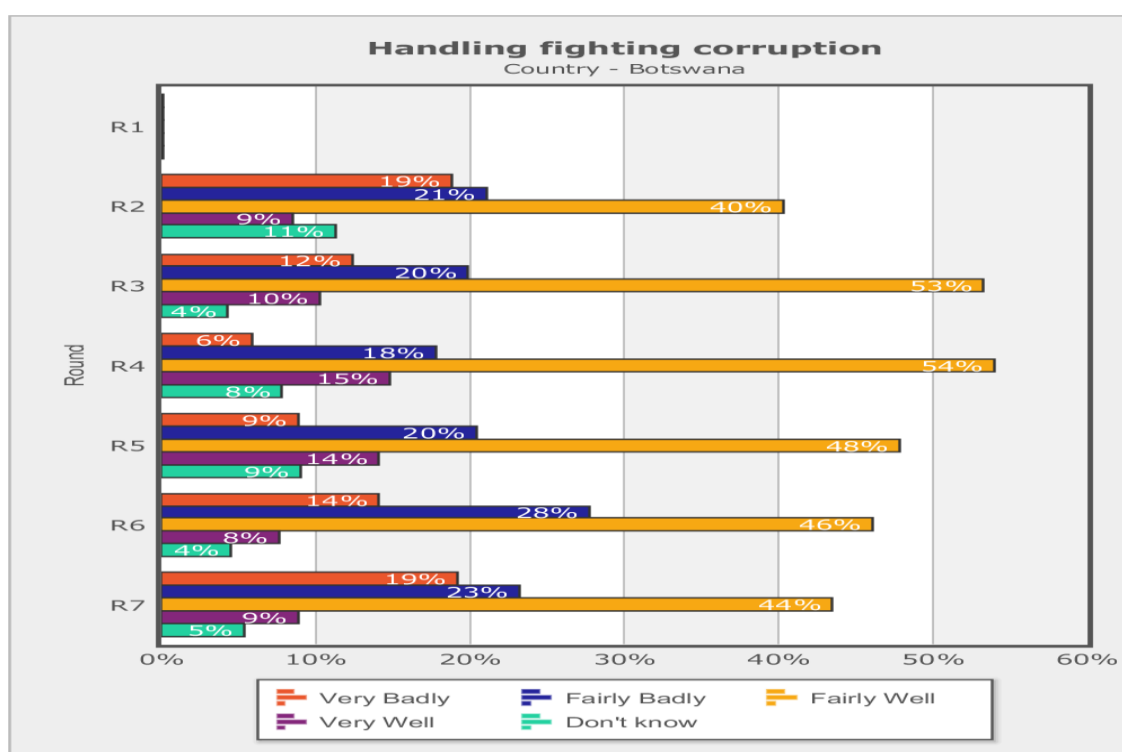


Notes. R4=2008/2009, R5=2011/2013, R6=2014/2015, and R7=2016/2018.

Table 6.6: Performance of leaders in Botswana and Malawi versus the participants in Afrobarometer Surveys

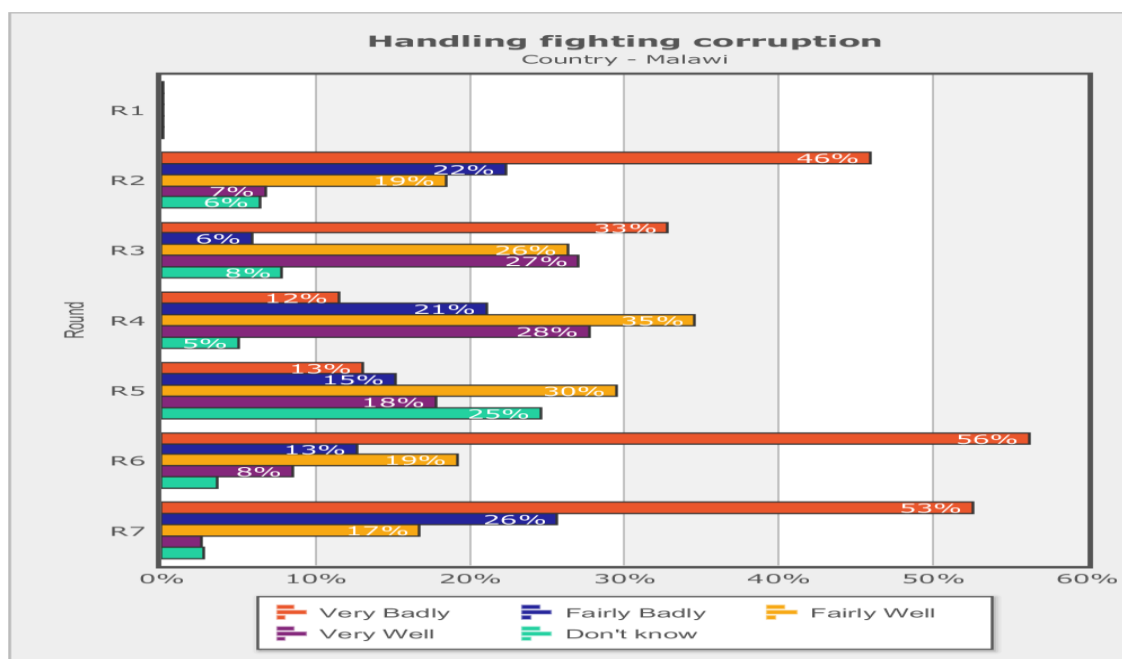
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Governance indicator	Categories	Total (%) per category	Round 1 (1999/2001)	Round 2 (2002/2003)	Round 3 (2005/2006)	Round 4 (2008/2009)	Round 5 (2011/2013)	Round 6 (2014/2015)	Round 7 2016/2018
Handling fighting corruption	Botswana								
	Very Badly	13.1%		18.8%	12.3%	5.8%	8.8%	14.0%	19.1%
	Fairly Badly	21.7%		21.1%	19.8%	17.8%	20.4%	27.8%	23.1%
	Fairly Well	47.5%		40.3%	53.3%	53.9%	47.8%	46.1%	43.5%
	Very Well	10.7%		8.5%	10.3%	14.7%	14.0%	7.6%	8.9%
	Don't know	7.0%		11.3%	4.3%	7.8%	9.0%	4.4%	5.4%
	(N)	7,178 (100%)		1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,178 (100%)
	Malawi								
	Very Badly	35.2%		46.0%	32.8%	11.5%	13.0%	56.2%	52.5%
	Fairly Badly	16.3%		22.3%	5.9%	21.1%	15.2%	12.7%	25.6%
	Fairly Well	24.2%		18.5%	26.4%	34.6%	29.5%	19.2%	16.7%
	Very Well	14.5%		6.8%	27.0%	27.7%	17.8%	8.4%	2.5%
	Don't know	9.8%		6.4%	7.8%	5.0%	24.5%	3.5%	2.7%
	(N)	9,601 (100%)		1,199 (100%)	1,200 (100%)	1,199 (100%)	2,403 (100%)	2,400 (100%)	1,200 (100%)
Handling addressing educational needs	Botswana								
	Very Badly	6.4%	6.9%	6.7%	4.5%	3.0%	4.3%	7.4%	12.2%
	Fairly Badly	15.8%	19.3%	12.6%	12.9%	12.6%	11.6%	22.0%	19.6%
	Fairly Well	59.6%	52.1%	60.3%	69.9%	65.6%	60.7%	56.9%	51.4%
	Very Well	16.6%	19.5%	18.4%	11.7%	17.7%	21.4%	12.8%	14.9%
	Don't know	1.6%	2.2%	2.1%	1.0%	1.1%	2.0%	1.0%	2.0%
	(N)	8,366 (100%)	1,187 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,199 (100%)	1,200 (100%)	1,180 (100%)
	Malawi								
	Very Badly	23.5%	21.3%	27.9%	38.5%	7.2%	7.3%	35.3%	31.3%
	Fairly Badly	15.3%	15.7%	20.5%	10.9%	16.1%	9.3%	15.2%	25.3%
	Fairly Well	35.0%	31.6%	34.5%	29.4%	43.9%	37.0%	32.5%	36.4%
	Very Well	20.2%	30.6%	16.0%	16.4%	29.7%	27.4%	14.4%	5.7%
	Don't know	6.0%	0.7%	1.1%	4.8%	3.2%	19.0%	2.6%	1.2%
	(N)	10,806 (100%)	1,207 (100%)	1,199 (100%)	1,200 (100%)	1,197 (100%)	2,403 (100%)	2,400 (100%)	1,200 (100%)

Figure 6.10: Performance of leaders in fighting corruption



Notes. Fighting corruption seems satisfying in Botswana

Figure.6.11: Performance of Malawi leaders in fighting corruption



Notes. Fighting corruption in Malawi seems not effective

Table 6.6 above specifies that 47% of Botswana participants regarded control of corruption (COC) in Botswana was working reasonably well and 10% considered the COC is effective very well from 2002 until 2018. In contrast, 24% of participants in

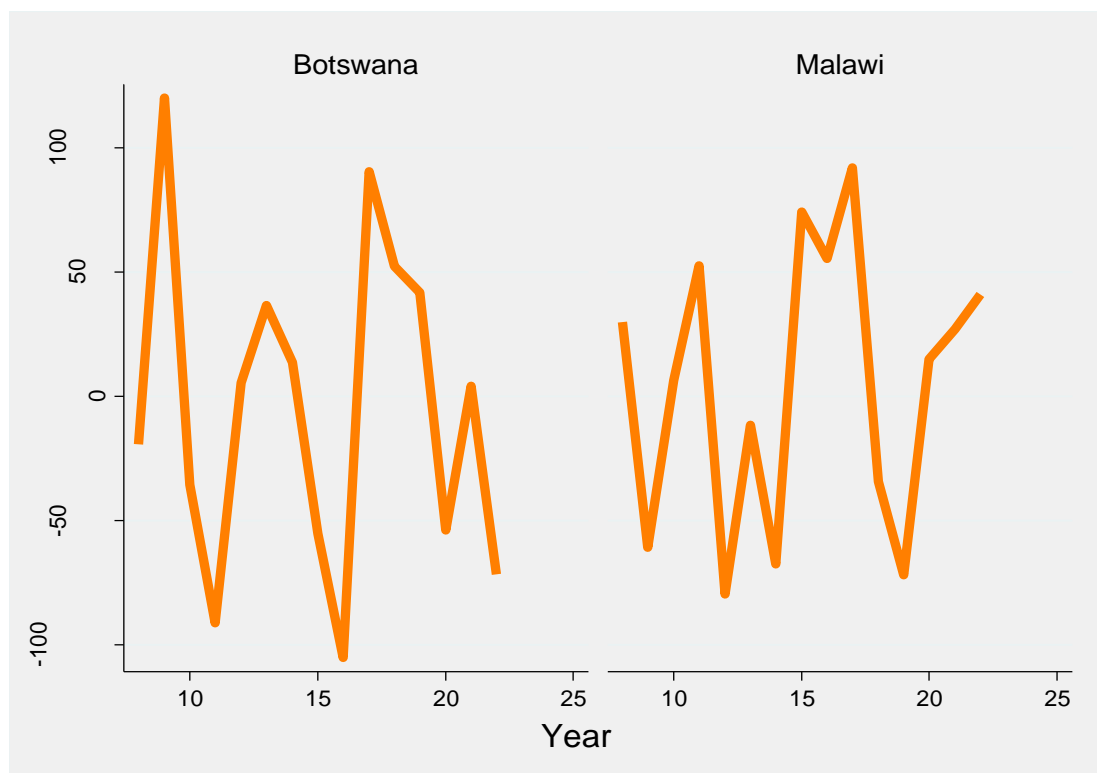
Malawi considered COC was done relatively well while about 15% regarded COC was going on very well. Also, in the same table, about 35% of participants in Malawi considered COC in Malawi very bad, and 16% regarded COC in the country reasonably bad. While in Botswana only 13% and 22% considered COC very bad and fairly wrong respectively. Table 6.6 also shows the evolution of leaders regarding addressing the educational needs in Botswana and Malawi respectively. In Botswana, about 59% rated leaders in Botswana were achieving the task at reasonably well comparing to 17% who rated the work of leaders very well. On the other hand, in Malawi, 35% regarded the leaders were addressing educational needs reasonably well while 20% thought the leaders did very well. Generally, the overall performance of the leaders in Botswana was favorably rated while the leaders in Malawi were categorized not doing enough regarding addressing the issues in the country.

Moreover, Figures 6.10 and 11 above also indicate that Malawi participants rated their leaders favorably in the years from 2008 to 2012. For instance, 35% and 28% of participants in round 4 considered leaders handled fighting corruption reasonably well and very well respectively. The same pattern repeated in handling educational needs whereby 44% and 30% of Malawi participants regarded the leaders did their job reasonably well and very well respectively. Further exploration in Figure 6.12 below is done by running an Ordinary Least Squares (OLS) model in Botswana and Malawi. The model has the same variables applied in SlowOLS1SSC and FastOLS1SSC models in Table 6.1 above. Figure 6.12 below indicates that Malawi had the highest observed economic growth values in the years about 2008 to 2012. These are the years whereby participants in Malawi rated the leaders more favorably than other years in the surveys as demonstrated in Tables 6.5 and 6.6 above. Figures 6.6 to 6.11 above also help to identify the pattern of the participant's responses over the period of about 16 years.

The short period Malawi performed to the expectations of its citizens falls in the leadership rule of the late President Bingu wa Mutharika who assumed power in 2004. Bingu wa Mutharika was re-elected soundly after his full first term in 2009. According to Kondowe (2014), late Bingu wa Mutharika had a successful first term as president of the Republic of Malawi, but due to his dictatorship attributes, his second term was unsuccessful until his demise in 2012. Nonetheless, his leadership taking into the views of the participants in Afrobarometer Surveys created hope for many Malawians. It seems to suggest that Bingu wa Mutharika had a strong personal leadership that changed the course of political events in the country. For instance, during his time, all the indicators of governance according to the evaluation of the participants in the surveys Bingu wa Mutharika performed well compared to other leaders in the history of the country. He seemed to have used his strategic position in power, capacity, and skill of the leader to affect policy implementation and changes were forced to happen despite to some extent

strong opposition from his competitors (Jervis, 1976 cited in Šćepanović, 2018). As a result, the ability of leaders in respective responsibilities regulates the social or civic capital that plays a crucial role in the implementation of the formulated policies (Gill et al., 2018).

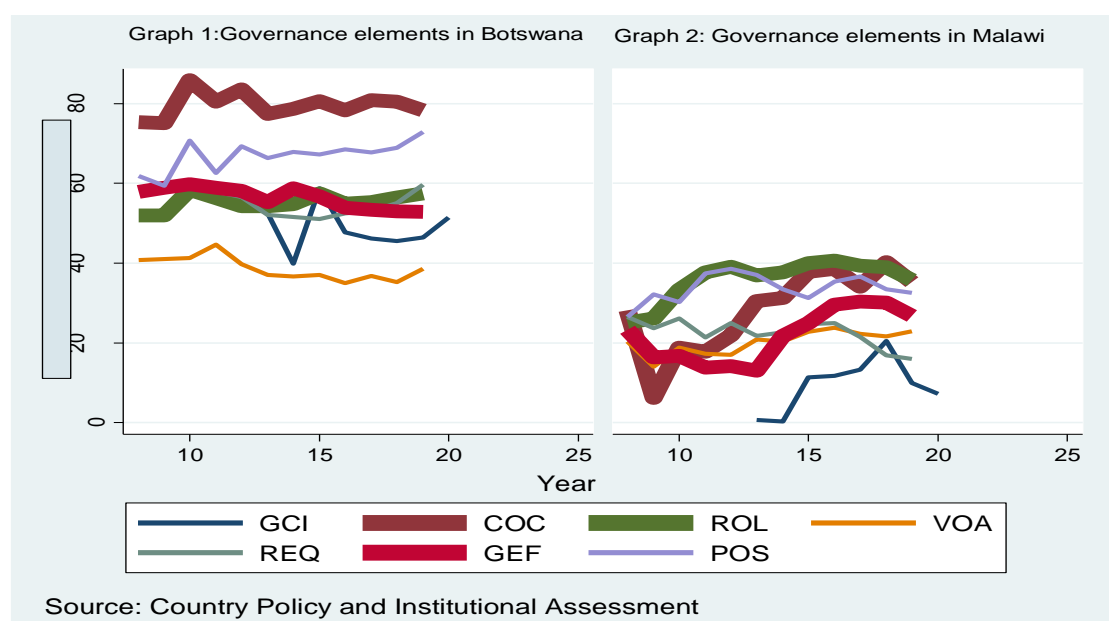
Figure 6.12. Malawi's participant's evaluation of leaders versus model prediction



Notes. Positive observed values are highest in a period participants rated the leaders positively in Malawi.

All in all, the discussions above appear to suggest that proxies of governance used in literature may not reflect what is taking place in reality. For example, the predictions of governance variables in SlowOLS1SSC and FastOLS1SSC models above seem to contradict the observed indicators of governance in Botswana and Malawi as illustrated in Tables 6.5, 6.6, and Figures 6.6 to 6.12 above. However, the next paragraphs will explore more on other proxies of governance about observed data in Malawi and Botswana. Figure 6.13 below introduces Voice Accountability (VOA) as a proxy of governance (VOA).

Figure 6.13: scores of governance proxies in Botswana versus Malawi



Notes. This figure captures the environmental attributes in Malawi and Botswana. These attributes explain governance differences between Botswana and Malawi.

Figure 6.13 above shows voice accountability (VOA) scores in Malawi which are relatively low (under 30%) comparing to Botswana about 40%. Even though Botswana's VOA scores are higher than in Malawi, the scores are relatively low, under 50% in both countries. It seems to suggest that the executive's policy after the electoral process could be no longer be in the voters' interests to some extent in both countries. Hence, less accountability after the democratic electoral process is associated with unsuccessful governance (Kitrosser, 2009). According to Meier and O'Toole Jr. (2008), ineffective governance in most cases is connected to the conditions in countries whereby political branches regulate the bureaucracy function. In other words, in such conditions, civil servants in bureaucracies are more accountable to the political branches other than performing their duties for quality public services. The tendencies of unproductive governance as explained in the previous sentences seem to limit opportunities for productive investment in economic, political and social development in SSC. For instance, Fayissa and Nsiah (2013) researched the impact of good governance in African countries mainly SSC region covering the period from 1995 to 2005, and they concluded that good governance has a significant impact on economic growth in the region. However, their research engaged six proxies of good governance which seem to correlate with each other, hence could be prone to spurious findings. Therefore, this thesis fills the gap by engaging fewer proxies of governance and carefully related to status quo regarding political and social capital effectiveness in the multi-case study of Botswana and Malawi.

Similarly, Rivera-Batiz and Rivera-Batiz (2002) associate democracy and economic growth in terms of good governance through elements like: checks and balances on executive powers, constitutional processes and guarantees, freedom of the press and the absence of restriction, transparent and effective judicial and legal structures, incumbent term limits, and transparency, openness and citizen input in policymaking. It seems to suggest that proper governance respects citizens' participation in decision-making processes. In other words, a precondition for sustainable economic growth and social development is the peoples' participation at all levels such as public and corporate settings, national, local, and regional levels (Stiglitz, 2000 cited in Rivera-Batiz and Rivera-Batiz, 2002). There seems to be a strong correlation between democracy and good governance especially in countries where there are free, open and competitive elections whereby executive in authority does not subvert the will of the people. Having said that Figure 6.13 above shows, Botswana has higher scores for political stability than Malawi. However, the average scores of the participants in the Afrobarometer survey from 2008 to 2018 about the freedom to say what they think to show differently. Unexpectedly, 72.7% of participants in Malawi indicated were utterly free while in Botswana about 65% felt were free as demonstrated in Table 6.7 below.

Table 6.7. Freedom of citizens Versus government accountability

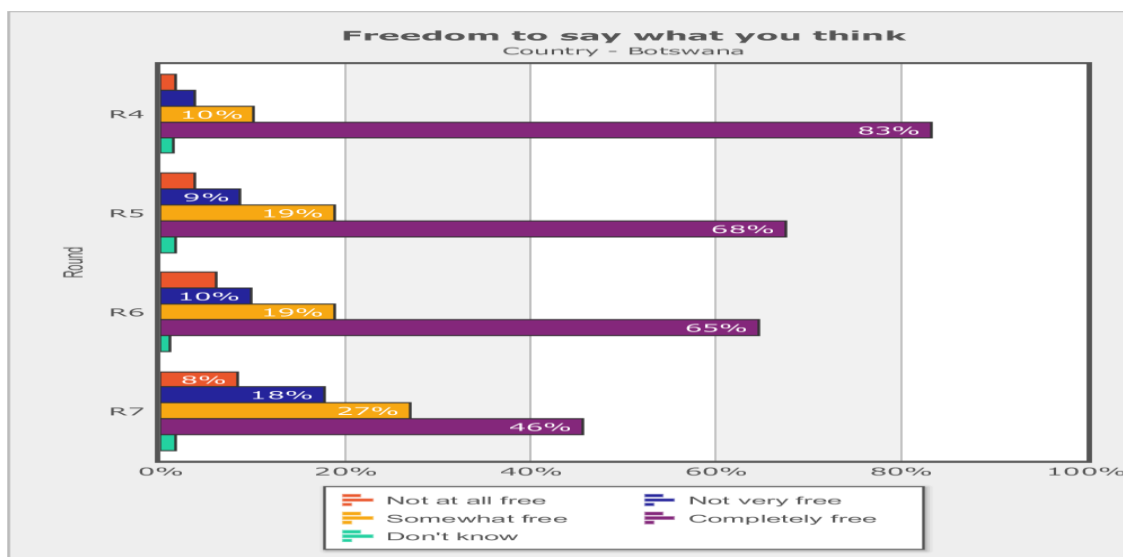
(1) Category of measurement	(2) Total per category (%)	(3) Round 2	(4) Round 3	(5) Round 4	(6) Round 5	(7) Round 6	(8) Round 7
Botswana: Freedom to say what you think							
Not at all free	4.9%			1.7%	3.6%	5.9%	8.3%
Not very free	9.9%			3.7%	8.6%	9.7%	17.5%
Somewhat free	18.6%			10.0%	18.7%	18.7%	27.1%
Completely free	65.3%			83.3%	67.6%	64.5%	45.6%
Don't know	1.4%			1.3%	1.5%	1.1%	1.5%
(N)	4,796 (100%)			1,200	1,200	1,200	1,196 (100%)
Malawi: Freedom to say what you think							
Not at all free	3.1%			4.2%	1.8%	2.9%	4.8%
Not very free	10.2%			6.8%	11.6%	7.4%	16.6%
Somewhat free	12.9%			10.6%	6.9%	11.9%	29.0%
Completely free	72.7%			76.7%	78.6%	76.9%	48.4%
Don't know	1.2%			1.7%	1.2%	0.8%	1.2%
(N)	7,207 (100%)			1,200	2,407	2,400	1,200 (100%)
Botswana: Government gets things done but no citizen influence vs. Govt. accountable to citizens							
Agree very strongly with	12.4%				9.2%	14.8%	13.3%
Agree with 1	14.0%				14.5%	18.6%	9.1%
Agree with 2	29.3%				38.1%	33.5%	16.3%
Agree very strongly with	41.2%				35.8%	31.0%	56.7%
Agree with neither	1.9%				1.3%	1.0%	3.4%
Don't know	1.2%				1.2%	1.2%	1.2%
(N)	3,597 (100%)				1,200	1,199	1,198 (100%)
Malawi: Government gets things done but no citizen influence vs. Govt. accountable to citizens							
Agree very strongly with	27.8%				22.3%	36.3%	22.1%
Agree with 1	7.5%				9.8%	4.9%	8.3%
Agree with 2	10.1%				12.2%	5.0%	15.8%
Agree very strongly with	53.1%				54.3%	52.4%	52.2%
Agree with neither	0.6%				0.7%	0.3%	1.2%
Don't know	0.8%				0.7%	1.1%	0.3%
(N)	6,007 (100%)				2,407	2,400	1,200 (100%)

Notes. R4=2008/2009, R5=2011/2013, R6=2014/2015, and R7=2016/2018.

Furthermore, Figures 6.14 and 6.15 below indicate that complete freedom in Botswana has declined dramatically from 83% in 2008 to 46% in 2018. Similarly,

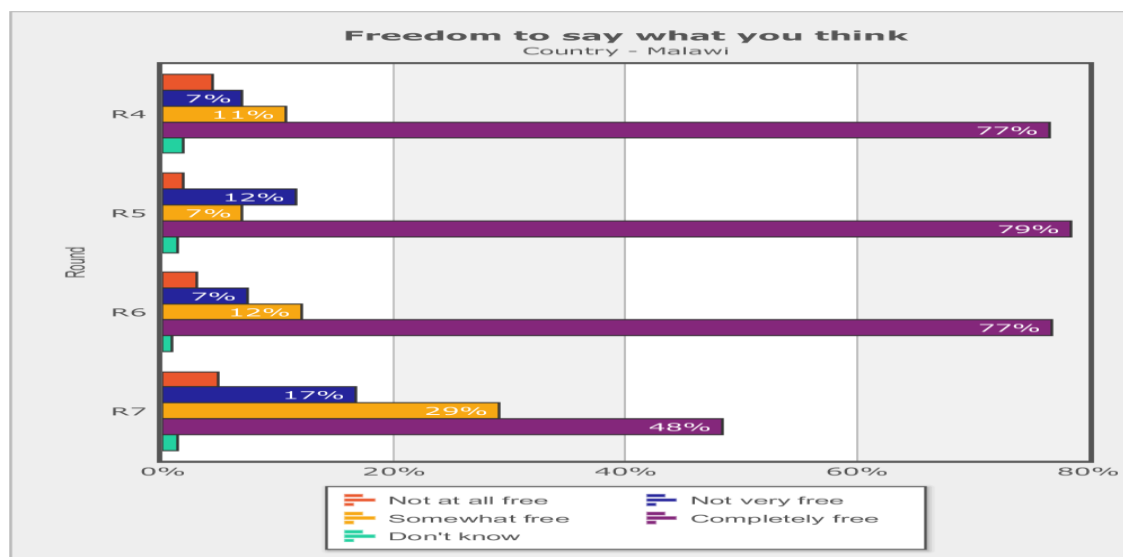
complete freedom in Malawi has plummeted from 77% in 2014 to 48% in 2018. However, complete freedom in Malawi remained steady from 2008 to 2014 while in Botswana there was a sharp fall from 2008 to 2011 and remained steady until the sharp decrease from 2014 to 2018.

Figure 6.14: Freedom to say what people think in Botswana



Notes. Dramatic fall of complete freedom in Botswana

Figure 6.15: Freedom to say what people think in Malawi

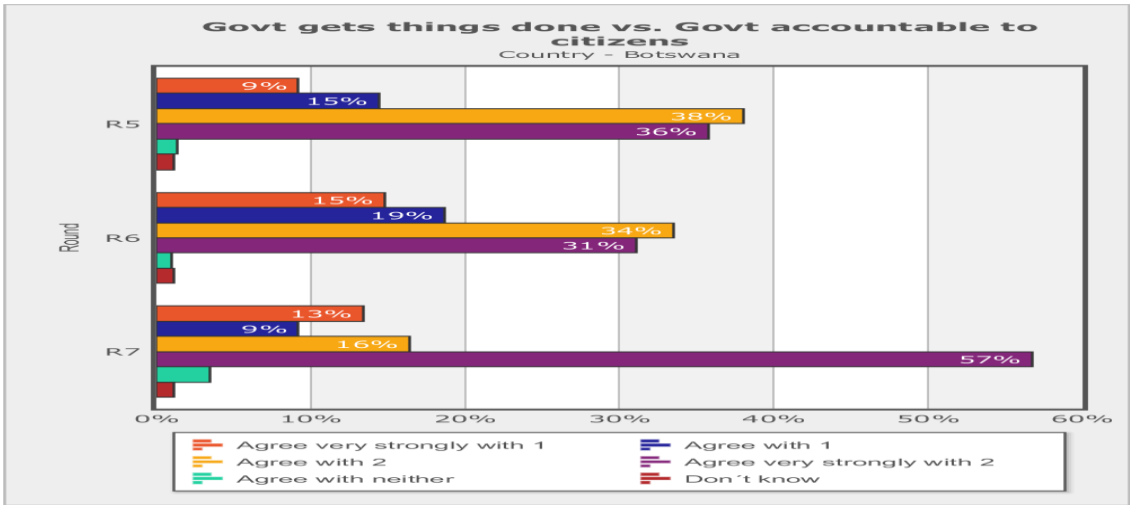


Notes. A sharp decrease of complete freedom in Malawi from 2014 to 2018.

Therefore, proxy uses of governance indicators such as those demonstrated in Figure 6.13 above may not capture all elements reflecting the reality of governance in the countries. For example, political stability (POS) and voice accountability (VOA) in

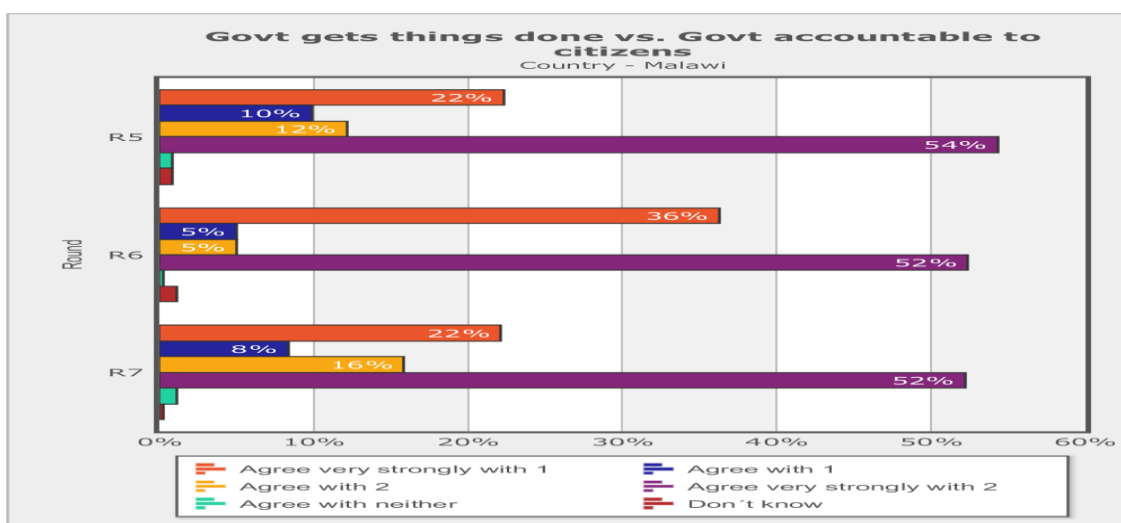
Figure 6.13 above shows Botswana have higher scores than Malawi, yet one of the critical measurements of the governance elements Malawi scores higher than Botswana in Table 6.7 and Figures 6.14 and 6.15 above. Moreover, in Table 6.7 above participants in Botswana and Malawi expressed their views regarding government being accountable to the citizens. Alternatively, the government should do whatever they want without considering the views of the participants. The table shows that 53% of participants in Malawi in all the three surveys consider government should be accountable to the citizens while in Botswana only 42% share the same view in the same period. However, the pattern of participants' views in Botswana has fluctuated from 2011 until 2018 as observed in Figures 6.16 and 6.17 below. For example, 36% in 2011 considered government be accountable to its citizens, in 2014 only 31% considered government is accountable to citizens. Surprisingly, there was a sharp rise in 2018 about 57% considered government is accountable to its citizens. On the other hand, in Malawi, the participants' views remained stable in the 50's (%) from 2011 until 2018.

Figure 6.16: Government accountability to the citizens in Botswana



Notes. Botswana participants in 2018 regard government are accountable to its citizens.

Figure 6.17: Government accountability to its people in Malawi

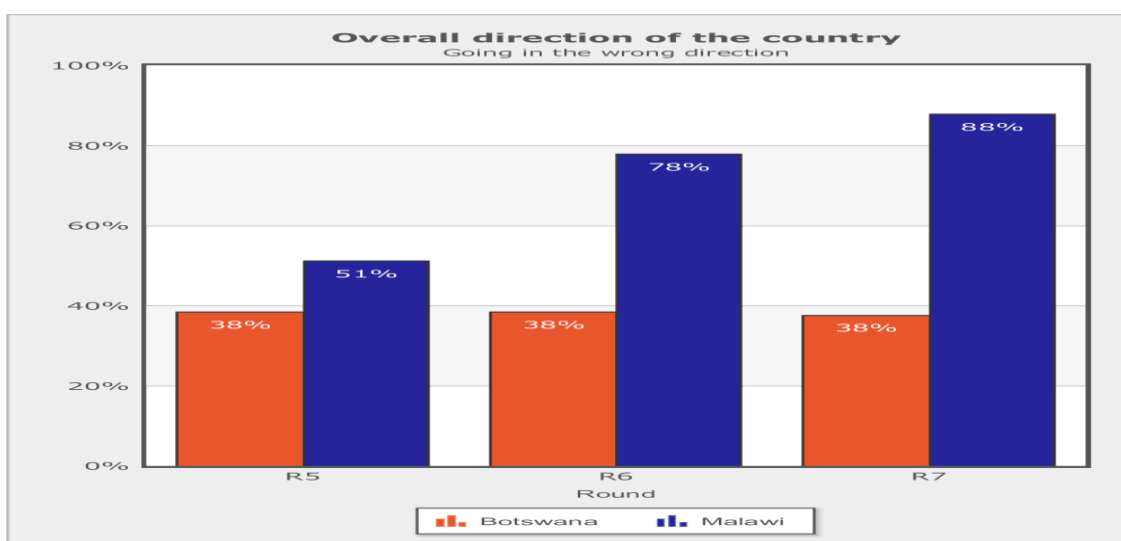


Notes, A steady decrease in participants' views regarding government accountability

Therefore, the observations made in Figures 6.16 and 6.17 above appear to demonstrate that it is at times challenging to find proxies which capture the real situation in the countries. Can this explain why the same variables in four models in Table 6.1 above performed differently? For example, GEF insignificantly and positively contributed to GDPPCG in SlowOLS1SSC model while in FastOLS1SSC model significantly reduces GDPPCG. Ironically, Botswana in the fast-growing countries has relatively higher scores than Malawi in the slow growth countries as illustrated in Figure 6.13 above. Table 6.7 and Figures 6.14 to 6.17 above show that citizens in Malawi are freer than Botswana citizens. Also, more people in Malawi regard government should be more accountable than Botswana people. Accountability is one of the key elements in good governance, but accountability scores in Figure 6.13 above are more in Botswana than Malawi. Is the index of accountability measure what people experience in countries? Proxies of governance such as VOA are debatable as deliberated above.

According to the United Nations, (2014) classification of country economies, Botswana is in the upper-middle-income group while Malawi is in the low-income country group. What do participants feel about the overall direction and performance of their respective countries? Figure 6.18 below about 38% of Botswana citizens think the country is going in the wrong direction over time (from 2011 to 2018). In contrast, in Malawi 51% in 2011 considered the country is going in the wrong direction, the number increased to 78% in 2014 and then 88% in 2018. All in all, Malawians think leaders are not accountable to the citizens' expectations. It, therefore, seems to suggest that differences of economic growth between Botswana and Malawi could be explained by the good governance of the leaders, contrary to the performance of GEF in Table 6.1 above which significantly and negatively reduces GDPPCG in the FastOLS1SSC model.

Figure 6.18: Direction of the countries regarding economic performance



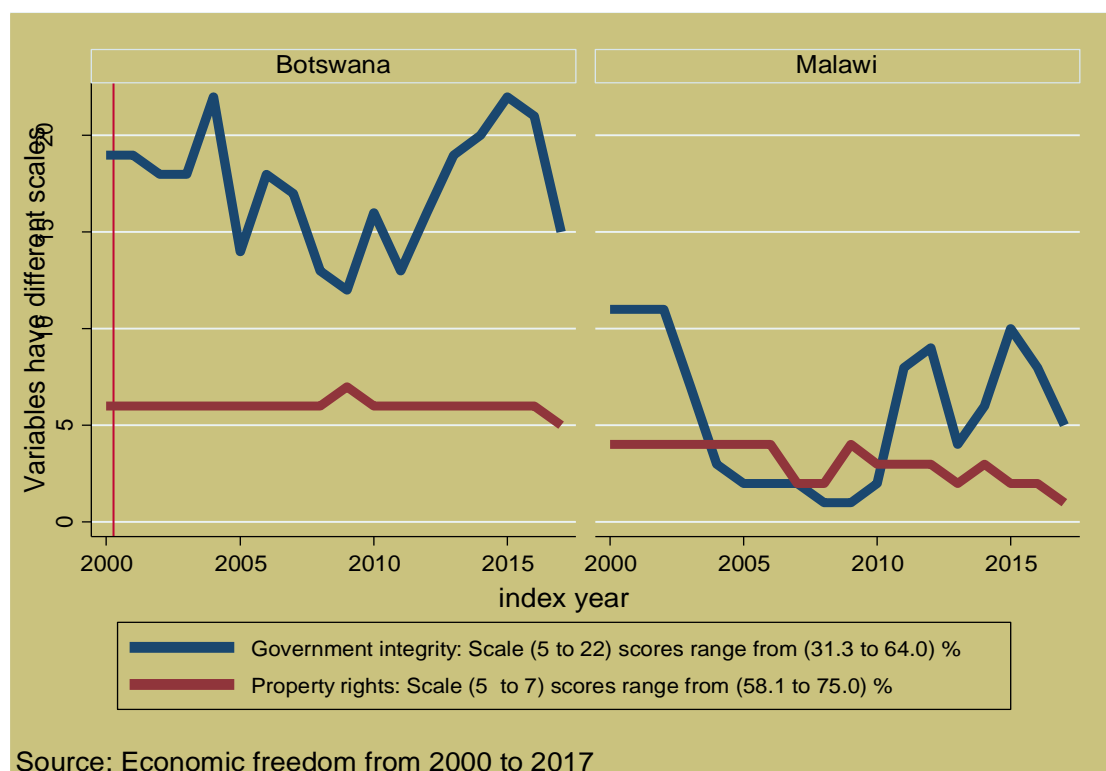
Notes. Participants' views about the direction of Botswana and Malawi countries

While on the same, Table 6.7 and Figures 6.14 and 6.15 above show that people in Botswana seem to be not politically free comparing to Malawi, could this indicate that strong leaders are necessary for economic growth in Africa? If participants' limitation to freedom as observed above could be related to strong leadership in Botswana, then strong leadership is good for economic growth. For example, Singapore's current economic development status according to Tong, (1996) mainly depended on the quality of political leadership who formulated policies embedded in cooperation between the executive and its citizens that through their determination steered their country out of the mire of poverty to prosperity. This seems to suggest that democratic institutions remain fragile and incomplete if executive authority lacks the strong leadership to mobilize their citizens to be achievement oriented regarding delivery of their duties in respective positions. However, strong leadership from the head of state (President or Prime Minister) is without shortfalls. For example, Waltz (2001) states that in politics individuals are prone to changes due to human being nature. Hence, steadfast leadership of individuals fails to explain the lack of sustainable economic growth in developing countries. It appears to suggest that prevailing political conditions in countries determine the course of political events, not individuals (Byman and Pollack, 2001 cited in Šćepanović, 2018).

Can this be connected to the performance of the ROL in Table 6.1 above? ROL is another aspect of good governance whereby leaders obey the law as they lead the citizens. The findings in Table 6.1 in OLS3 (developing) model in chapter 4 insignificantly enhances GDPPC. While in OLS1SSC model for chapter 5 significantly contributes to GDPPC. However, in the SlowOLS1SSC growth model, ROL insignificantly reduces GDPPCG. Contrary, ROL significantly enhances GDPPCG in FastOLS1SSC model SSC. Figure 6.13 above seems to confirm the findings of SlowOLS1SSC and

FastOLS1SSC models because Botswana as one of the fast-growing countries has a higher percentage score of ROL than Malawi representing slow growth countries. Therefore, it seems to suggest that the rule of law enhances economic growth combined with strong leadership. These observations seem to agree with observations noted in Tables 6.5 and 6.6 above. Furthermore, ROL appears to be connected to the integrity of the leaders and adhering to the rule of law and property rights as demonstrated in Figure 6.19 below.

Figure 6.19: Government integrity and property rights in Malawi and Botswana



Source: Economic freedom from 2000 to 2017

Notes. Botswana has the much higher integrity of government operations and property rights than Malawi.

Figure 6.17 above shows that Botswana leaders have more credibility in their leadership than Malawi. It seems to agree with Figure 6.18 above whereby participants in Botswana feel the performance of the country is going in the right direction. Contrary, in Malawi about 80% of the participants felt the country is going in the wrong direction. Why? Probably, due lack of the rule of law and integrity of the leaders. Therefore, despite the weaknesses noted in strong leadership, according to Greenstein (1967), the personality of a leader can change the course of political events in the country. The strategic position in power, capacity, and skill of the leader do not only affect policy implementation but also force changes despite to some extent reluctance of state bureaucracy according to (Jervis, 1976 cited in Šćepanović, 2018). Personality characteristics in pursuing challenging policies champion the achievement of desirable

changes. However, a leader's capacity just like other individuals involved in politics can be influenced by experiences of generational effects (Jervis, 2017). Therefore, the lack of strong political leadership could cause stagnant economic growth in developing countries (Norris and Zinnbauer, 2002).

The integrity of the government is related to the variable of COC. Table 6.1 above shows that COC significantly reduces GDPPC in OLS1SSC and SlowOLS1SSC models. Contrary, in FastOLS1SSC model insignificantly contribute to GDPPCG. Figure 6.13 above shows that Botswana has higher scores of COC than Malawi agreeing with the findings in the models for slow and fast-growing countries. That is reflected by the information available at The Directorate on Corruption and Economic Crime, (2006), whereby Botswana deals with corruption decisively in that anybody committing corruption crime faces the full force of the law regardless of status or political affiliation. In contrast, information from Economic Freedom, (2017) shows that Malawi fails to control rampant corruption prevailing in the country. It could be due to Anti-corruption Bureau (ACB) in charge of investigating and prosecuting of corrupt officials being underfunded and appointments in most cases made to office bearers being politically motivated. That compromises the responsibility and accountability of the bureau officials. The underfunding of the ACB could be due to lack of political will in the country to apply the full extent of the law to the corrupt officials. Why? Possibly, political leaders in government in Malawi fund their parties by diverting the resources meant for more critical issues in the country (Wild, 2014). Also, the success of dealing with corruption in both countries is reflected in the ranking by Corruption Perceptions Index, (2017) whereby Botswana is ranked 35 while Malawi 120 out of 176 countries. Figure 6.13 above also illustrates that Botswana has better regulatory control on the elected officials than Malawi.

Moreover, the presence of inefficient bureaucracy and political corruption in democratic institutions undermines representative bureaucracy theory. Adsera et al. (2003) argue that good governance also depends on the principal-agent theory whereby effective governance relies on the function of the extent to which citizens hold elected officials accountable. Adsera and others measured political accountability by the availability of the standard mechanism of control and information flow to the electorate through newspapers (2003). They used a broad cross-section of countries with data from (Kaufmann et al., 1999a cited in Adsera et al., 2003). They concluded that elected officials in most cases abuse power by holding information to the electorate why policies were formulated, hence, pursuing their agenda that jeopardizes the welfare of all citizens. The principal-agent theory in this chapter is tested through two variables namely: political capital and social capital generated from two sources World Values Surveys (WVS) and Afrobarometer Surveys (AS). Despite the introduction of democratic

institutions in developing countries, the countries until now do not register sustainable economic growth. The underperformances of democratic institutions need further scrutiny specifically in the participation of citizens in the electoral process. For instance, Rivera-Batiz and Rivera-Batiz (2002) state that exercising the right to vote, free and fair elections, and presence of many parties competing in the elections do not warrant effective democratic institutions. They, however, observed that the degree the citizens get involved in decision making in different structures of the society matters more to regulate the misuse of power by elected officials. Higher levels of participation of the citizens in policy formulation and implementation imply that elected officials are accountable in decision machinery of the government after being elected. The lack of this accountability derails welfare services to all citizens in the respective countries whereby selfish elected officials can reverse the will of the people. Figures 6.14 to 6.16 above appear to confirm the findings of (Rivera-Batiz and Rivera-Batiz, 2002).

6.4.2 Social capital essential for growth in developing countries

The prediction of Consequently, the ability of leaders in respective responsibilities determines the social (civic) capital that plays a crucial role in the implementation of the formulated policies (Gill et al., 2018). The formation of social capital also relates to the servanthood of the leaders. For instance, Wang et al. (2018) conducted a research in a banking company whereby employees were in three categories: highly skilled managers, supervisors, and low skilled employees. They observed that servanthood of the highly skilled managers influenced levels of commitment and performance of the low skilled employees through the medium of the supervisors. The leaders with transformational and service characteristics are desirable in most of the developing countries to enhance sustainable economic growth in the countries. These type of leaders could put the interests and needs of their citizens first that could, in turn, have effect in the public delivery systems for the benefit of all people in respective countries (Van Dierendonck et al., 2014). The infectious influence of servant ship leadership to the subordinates is in line with social learning theory whereby role modeling process has a considerable effect on performance behavior of the followers (Bandura, 1977; Liden et al., 2014b). The relationship between servant leadership and the followers discussed above are empirically researched in work-related environments. However, this study applies the same theory in a political environment whereby leaders play crucial roles in enhancing the economic, political, and social development of the citizens in mainly developing countries discussed in detail in the next paragraph.

The findings in Table 6.1 above shows that SOC in OLS3 (developing); OLS1SSC, and SlowOLS1SSC models significantly and positively contribute to

GDPPC. Contrary, in FastOLS1SSC model insignificantly impact GDPPC. However, Figure 5.15 in chapter 5 indicates that SOC is twice as much higher in the FastOLS1SSC model than in SlowOLS1SSC model. Table 3.5 in chapter 3 indicates how variables of SOC (trust capital) and CPR (public capital) were generated. SOC was generated from four variables captured in Afrobarometer surveys as Q59A. Trust president; Q59B. Trust parliament/national Assembly; Q59C. Trust national Electoral Commission; and Q59E. Trust your elected local government council. CPR was generated from Q30A. Contact local government councilor; Q30B. Contact MP; Q30C. Contact official of a Government Agency; and Q30D. Contact political party official. See details in chapter 3 sub-section 3.4.5 the techniques used for the formation of SOC and CPR variables. Having said that Table 6.8 below indicates details of the performance of the president against attributes used to generate SOC and CPR respectively.

Table 6.8: Performance of the president versus social capital and civic capital

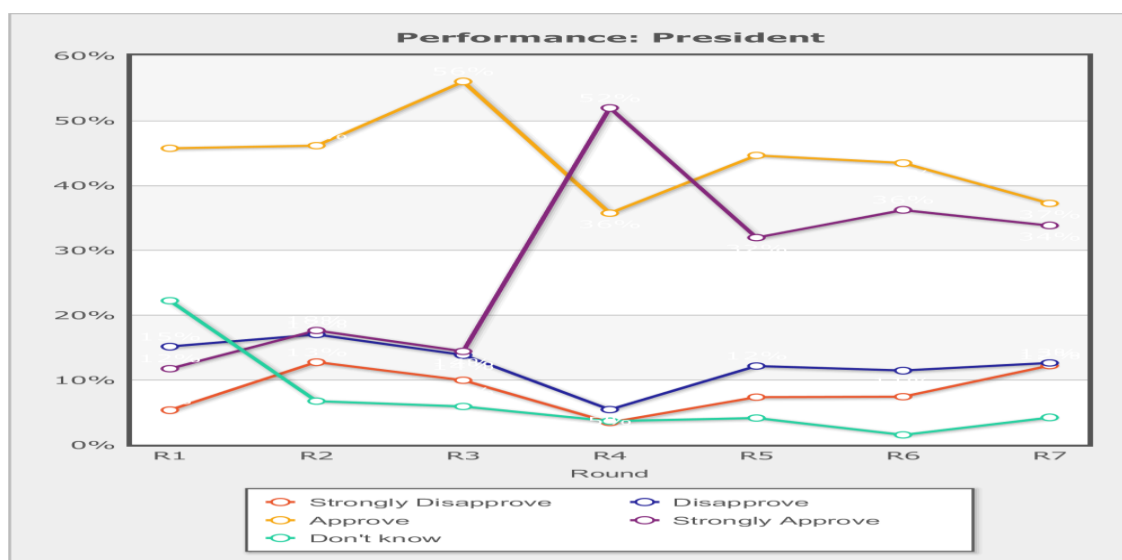
(1) Category of measurement	(2) Total per category (%)	(3) Round 1	(4) Round 2	(5) Round 3	(6) Round 4	(7) Round 5	(8) Round 6	(9) Round 7
Botswana: Performance of President								
Strongly Disapprove	8.3%	5.3%	12.7%	9.9%	3.4%	7.3%	7.4%	12.2%
Disapprove	12.5%	15.1%	17.0%	13.8%	5.4%	12.1%	11.4%	12.6%
Approve	44.1%	45.7%	46.1%	56.0%	35.7%	44.6%	43.4%	37.2%
Strongly Approve	28.2%	11.7%	17.6%	14.4%	51.9%	31.9%	36.2%	33.8%
Don't know	6.9%	22.2%	6.7%	5.9%	3.6%	4.1%	1.5%	4.2%
(N)	8,350 (100%)	1,188 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,163 (100%)
Malawi: Performance of President								
Strongly Disapprove	24.3%	16.5%	19.6%	24.8%	7.6%	9.3%	45.5%	41.2%
Disapprove	13.4%	18.3%	12.1%	6.4%	6.8%	11.5%	14.3%	25.3%
Approve	25.5%	33.9%	32.4%	16.6%	23.2%	29.3%	21.7%	21.3%
Strongly Approve	31.4%	29.1%	32.2%	38.9%	60.3%	38.9%	16.4%	11.3%
Don't know	5.4%	2.2%	3.8%	13.3%	2.2%	11.0%	2.1%	1.0%
(N)	10,798 (100%)	1,206 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	2,401 (100%)	2,400 (100%)	1,191 (100%)
Botswana: Trust the President								
Not at all	12.6%	10.6%	19.6%	14.2%	5.8%	9.8%	13.8%	14.5%
Just a little	20.0%	25.3%	31.1%	15.3%	13.4%	17.2%	18.0%	19.5%
Somewhat	22.7%	31.4%	30.0%	21.3%	20.4%	24.9%	18.7%	12.3%
A lot	38.4%	12.4%	14.4%	44.9%	56.2%	44.6%	48.4%	48.1%
Don't know	6.2%	20.3%	4.9%	4.3%	4.2%	3.4%	1.0%	5.6%
(N)	8,384 (100%)	1,196 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,188 (100%)
Malawi: Trust the President								
Not at all	23.9%	19.2%	18.0%	16.8%	7.7%	14.6%	45.6%	32.9%
Just a little	21.9%	29.1%	30.4%	16.6%	11.5%	16.9%	22.7%	30.1%
Somewhat	14.2%	24.0%	22.3%	9.1%	15.0%	14.5%	8.8%	11.0%
A lot	35.2%	26.0%	25.8%	51.2%	63.8%	42.5%	20.1%	24.7%
Don't know	4.8%	1.7%	3.5%	6.3%	2.1%	11.5%	2.8%	1.3%
(N)	10,809 (100%)	1,208 (100%)	1,200 (100%)	1,200 (100%)	1,199 (100%)	2,406 (100%)	2,399 (100%)	1,196 (100%)
Botswana: Trust courts of law								
Not at all	9.2%	6.3%	13.3%	9.8%	7.0%	8.1%	10.3%	9.2%
Just a little	17.9%	17.5%	25.8%	16.3%	14.6%	16.1%	17.0%	17.8%
Somewhat	28.9%	39.0%	40.5%	27.0%	26.1%	24.7%	27.5%	17.9%
A lot	37.6%	26.0%	16.8%	41.6%	46.5%	42.0%	41.2%	48.9%
Don't know	6.5%	11.2%	3.7%	5.3%	5.8%	9.1%	4.0%	6.2%
(N)	8,379 (100%)	1,186 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,200 (100%)	1,193 (100%)
Malawi: Trust courts of law								
Not at all	9.8%	18.7%	7.9%	7.9%	6.4%	4.9%	10.1%	16.8%
Just a little	17.0%	27.7%	26.3%	10.3%	14.4%	11.4%	16.1%	19.2%
Somewhat	19.4%	19.5%	28.7%	6.8%	22.5%	18.4%	19.5%	21.0%
A lot	49.8%	27.6%	32.6%	71.4%	51.8%	62.5%	51.0%	38.0%
Don't know	4.0%	6.5%	4.5%	3.6%	4.8%	2.7%	3.3%	5.0%
(N)	10,804 (100%)	1,208 (100%)	1,200 (100%)	1,200 (100%)	1,199 (100%)	2,399 (100%)	2,400 (100%)	1,199 (100%)
Botswana: Contact official of a government agency								
Never	78.9%		82.2%	86.6%	77.5%	79.4%	75.2%	72.4%
Only once	7.4%		6.9%	6.6%	8.5%	6.8%	7.0%	8.5%
A few times	9.4%		8.4%	5.6%	9.9%	8.8%	12.1%	11.7%
Often	4.2%		2.5%	1.2%	3.8%	4.9%	5.7%	7.1%
Don't know	0.1%		-	0.1%	0.3%	0.2%	-	0.3%
(N)	7,196 (100%)		1,200 (100%)	1,200 (100%)	1,200 (100%)	1,199 (100%)	1,200 (100%)	1,197 (100%)
Malawi: Contact official of a government agency								
Never	89.6%		86.3%	91.1%	90.9%	88.7%	89.6%	91.7%
Only once	3.7%		4.1%	2.4%	3.5%	4.3%	4.0%	3.4%
A few times	4.3%		6.6%	3.2%	3.1%	4.8%	4.5%	3.4%
Often	1.9%		2.8%	3.3%	1.6%	1.4%	1.7%	1.5%
Don't know	0.4%		0.3%	-	1.0%	0.8%	0.1%	0.0%
(N)	9,604 (100%)		1,200 (100%)	1,200 (100%)	1,200 (100%)	2,405 (100%)	2,400 (100%)	1,199 (100%)
Botswana: Interest in public affairs								
Not at all interested	12.20%			10.8%	14.7%	19.3%	16.3%	
Not very interested	15.3%		14.1%	14.8%	15.5%	15.3%	16.8%	
Somewhat interested	33.7%		38.3%	29.2%	29.3%	36.1%	35.6%	
Very interested	38.1%		46.4%	44.1%	40.0%	28.9%	31.0%	
Don't know	0.7%		1.3%	1.2%	0.5%	0.4%	0.2%	
(N)	5,998 (100%)		1,200 (100%)	1,200 (100%)	1,200 (100%)	1,198 (100%)	1,200 (100%)	
Malawi: Interest in public affairs								
Not at all interested	17.5%			16.2%	21.4%	23.5%	18.8%	
Not very interested	12.1%		12.7%	7.9%	16.5%	14.0%	9.7%	
Somewhat interested	19.2%		22.9%	15.0%	22.7%	18.2%	18.8%	
Very interested	50.2%		62.3%	58.8%	38.8%	43.9%	52.0%	
Don't know	1.0%		2.1%	2.2%	0.5%	0.4%	0.7%	
(N)	8,406 (100%)		1,200 (100%)	1,200 (100%)	1,200 (100%)	2,406 (100%)	2,400 (100%)	

Notes. Social capital levels in Malawi fluctuates with the performance of the president in each survey, unlike the levels of civic capital.

Table 6.8 above broadly illuminates the performance of the president in Malawi and Botswana. In Botswana, about 44% of participants approved the president, and 28% strongly approved over the period of 19 years. The overall average approval of the surveys for the president in the two categories is 72% in Botswana. On the other hand, in Malawi, about 26% of the participants approved the president and 31% strongly

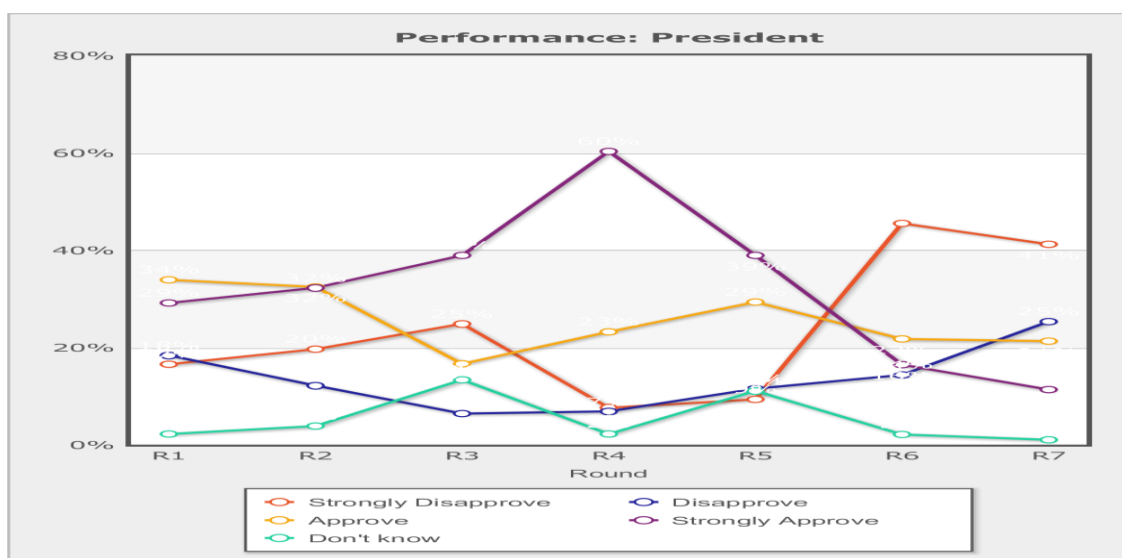
approved, the average total approval of the president for the two categories in Malawi is 57%. Figures 6.20 and 6.21 below establish that the approval of the president in Botswana does not change much as it does in Malawi. For instance, in Malawi, the approval of the president was highest in round 4 (2011/2013) with total approval of 84%. The least total approval of the president was 33% in round 7 (2017/2018) in Malawi. Generally, the approval of the president seems to influence how people trust the president. For example, Table 6.8 above and Figure 6.23 show that the trust of the president in Malawi was highest in round 4 (2011/2013) at 79% while in round 7 (2016/2018) at 36%. The link between the performance of the president and trust in the president in Malawi associate to how leadership succeeds in executing implementation of policies concerning improving the lives of their citizens in the country as illustrated in Tables 6.5 and 6.6 above.

Figure 6.20: Performance of the president in Botswana



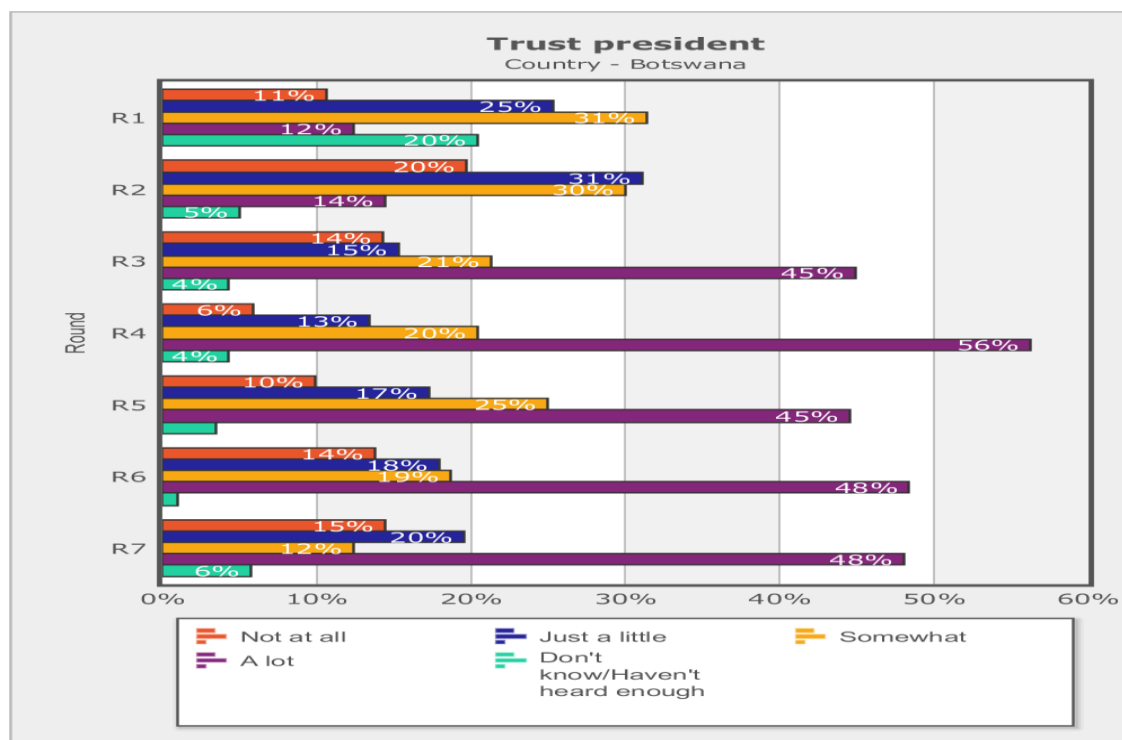
Notes. The approval of the president in Botswana slightly fell in three latest rounds

Figure 6.21: Performance of the president in Malawi



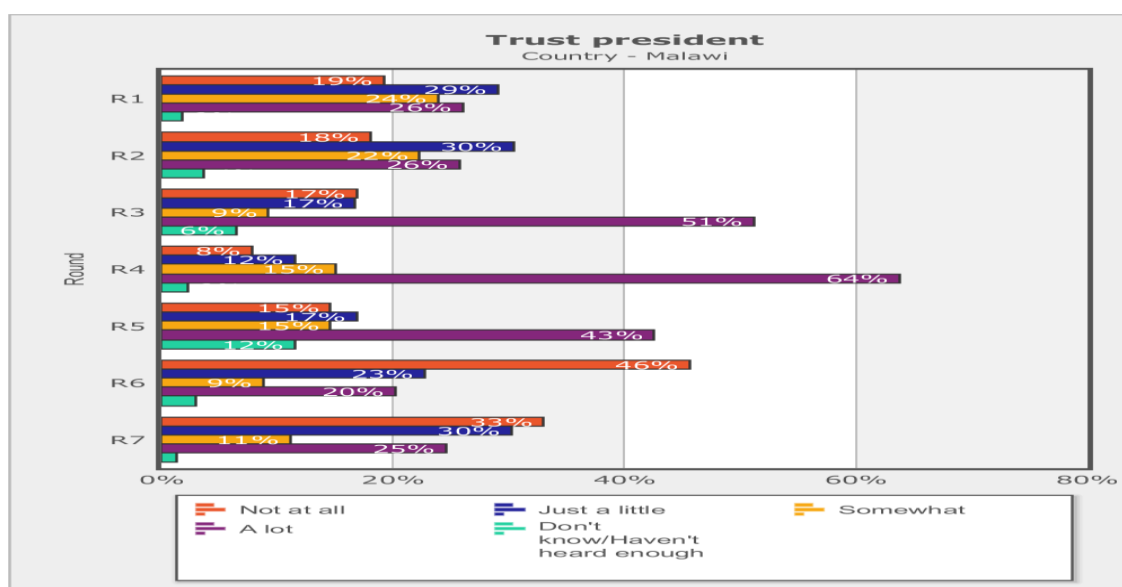
Notes. Performance of was at a peak in round 4 and plummeted to low in round 7

Figure 6.22: Trust of the president in Botswana



Notes. More people trust the president in Botswana in later rounds than earlier rounds

Figure 6.23: Trust of the president in Malawi



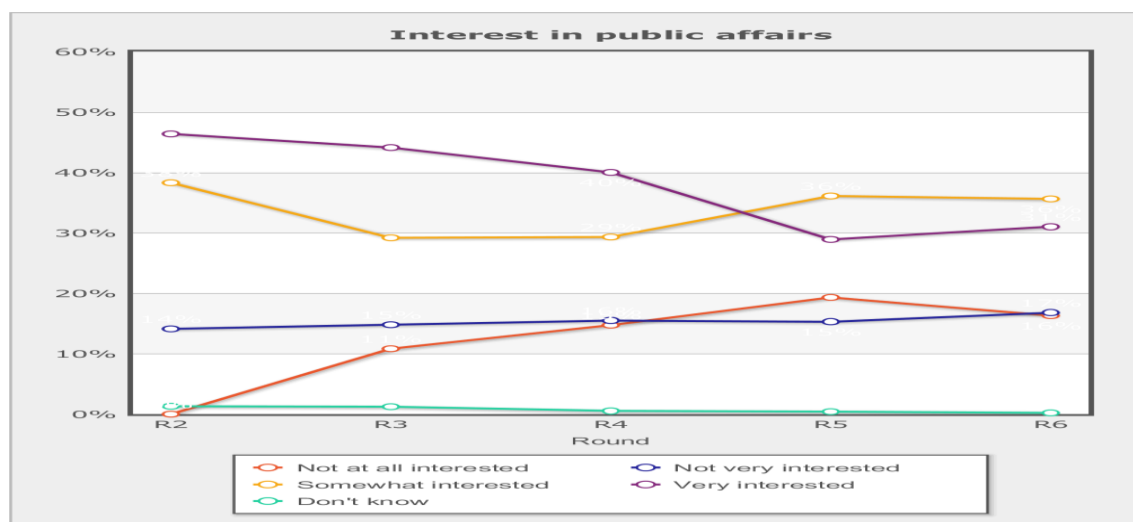
Notes. Rounds 3, 4 and 5 the president got the highest levels of trust comparing to other rounds

The percentages of trust in the president in Figures 6.22 and 6.23 above in Botswana and Malawi respectively, appear to reflect the performances of the president in each country. Tables 6.5 and 6.6 above generally indicate that the leaders in Botswana perform very well in indicators of government services than leaders in Malawi. It might explain why citizens in Botswana have much trust in their leaders than Malawian citizens. These observations seem to contract with the finding in Table 6.1 above whereby SOC significantly contributed to GDPPCG in SlowOLS1SSC model represented by Malawi while in FastOLS1SSC model insignificantly enhances GDPPCG. The differences between Malawi and Botswana citizens' feelings about leaders may determine the level of commitment to development programmes or political participation in Malawi and Botswana as noted by (Bros and Borooah, 2013, p. 257). What does this suggest about utilizing human capability? It seems to suggest that the level of leadership accountability determines the potential for commitment and capability of the citizens.

However, Table 6.8 above shows that the performance of the president has no direct effect on the levels of civic capital (CPR) probed in Figures 6.24 and 6.25 below. CPR in Table 6.8 above is depicted as interest in public affairs and Contact with an official of a government agency. In Malawi, about 69% of participants were interested in public affairs compared to about 72% in Botswana. However, in both countries, the percentage of participants who contacted agency official of the government is less than 15% correspondingly. Moreover, Figures 6.24 and 6.25 below do not indicate any influence from the president's performance in both countries. However, regarding the CPR effect on economic growth in Table 6.1 above, it indicates that CPR significantly

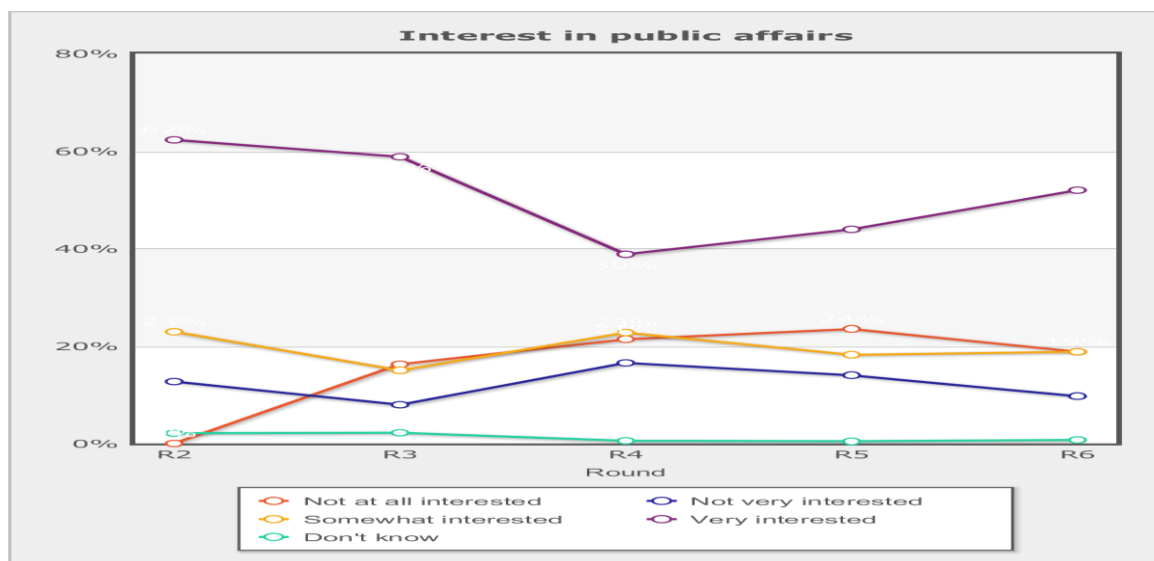
reduces GDPPCG in SlowOLS1SSC while in FastOLS1SSC insignificantly reduces economic growth. The negative impact of CPR on economic growth in SlowOLS1SSC is 17 times more than in the FastOLS1SSC model. The causes of more public capital in developing countries seem elusive. However, Graph 1 in Figure 6.26 below shows that Botswana as a typical case for fast growth SSC has higher CPR levels than Malawi a typical case for slow growth countries. Graph 2 in the same figure shows that the levels of both SOC and CPR fluctuate over time, but SOC increases with time in Botswana while in Malawi slightly recovers from a dip fall. However, there seems to be a negative relationship between the levels of SOC and CPR in graph 1 in Figure 6.26 below. For instance, low levels of SOC in Botswana lead to high levels of CPR. Contrary, in Malawi high levels of SOC, lead to low levels of CPR. Why?

Figure 6.24: Interest in public affairs in Botswana



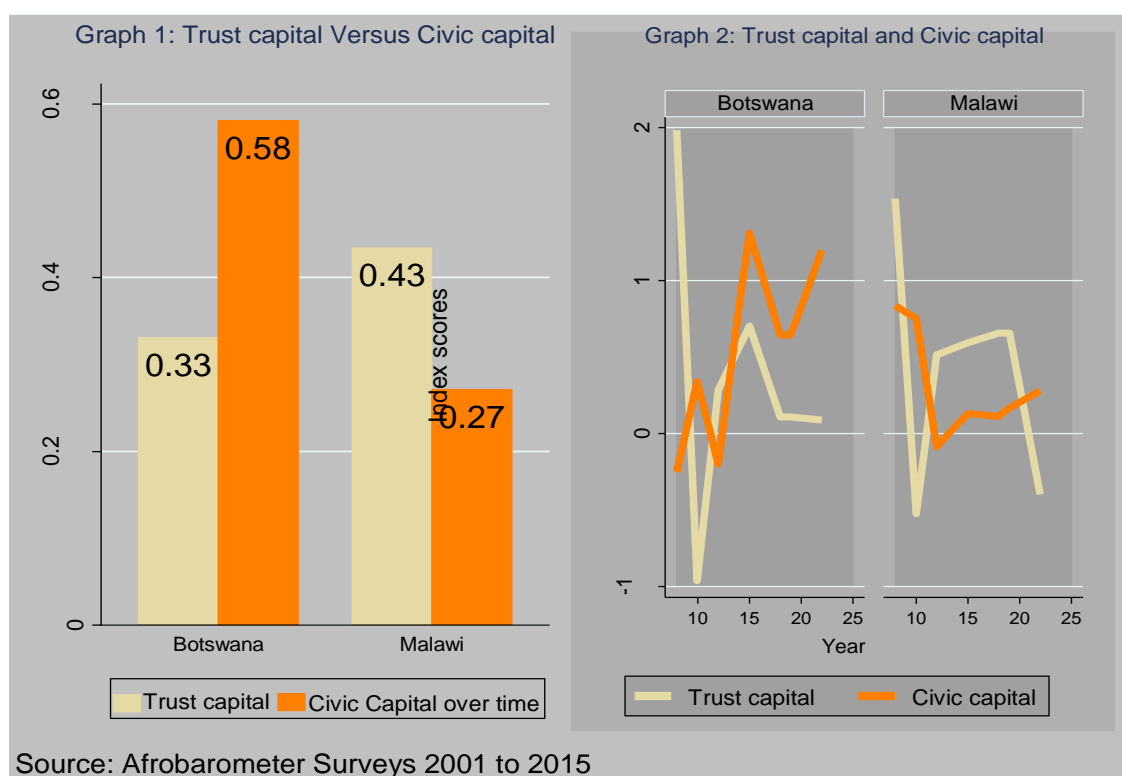
Notes. Interest in public affairs seem to reduce with time slightly

Figure 6.25: Interest in public affairs in Malawi



Notes. Interest in public affairs seems to increase when the performance of leaders worsens in Malawi.

Figure 6.26: Relationship between SOC and CPR in Botswana and Malawi



Source: Afrobarometer Surveys 2001 to 2015

Notes. Higher levels of SOC in Malawi decreases CPR while in Botswana lower SOC levels increases CPR. There seems to be a negative relationship between SOC and CPR variables in Botswana and Malawi.

The observations in Figures 6.24, 6.25, and 6.26 above seem to suggest that despite, the introduction of democratic institutions in most of the Sub-Saharan countries

such as Malawi, the public still seems to be in a dilemma regarding their importance in shaping the political landscape in the countries. It also seems to suggest that in peoples' minds the state has still ultimate power and it dictates what people should do or not do. These concerns of outcomes of liberal democracy in Africa is also noted in the literature. For example, Pabst (2016) raises concern about the concentration of power in unrepresentative and unaccountable in the hands of small social groups (p. 91). Nonetheless, transformed institutions in democratic countries empower people to exercise their right and play a part in the state's operations (Rose and Miller, 1992). The populace in developing countries like Malawi needs to understand that the role of the government is primarily to think and act for its people in areas of wealth, security, health, education, and happiness. According to Rose and Miller (1992) government articulates dreams, strategies, schemes, and maneuvers by the elected officials that shapes the beliefs and behaviors of its citizens by acting in the direction of the wills and dreams of its citizens.

On the other hand, citizens are also held accountable by their aggregate participation in electing the officials who determine their level of receiving expected outcomes through the making and implementation of the policies (Devarajan et al., 2011, p. 6). People in most of developing countries lack accountability in many ways. However, political accountability is crucially important in making the political parties not to depend on peoples' attachment to parties due to ethnic, social groups but regarding policies good for all people. The definition of political accountability in this thesis captures both people in leadership and in the context of social relations in line with Bovens's, (2010) definition⁴⁹. For instance, Keefer and Khemani (2009) researched the constituency development fund (CDF) in India and observed that legislators apply less effort in constituencies where people are attached to the political party. The implication is that CDF programs have less impact when people have more affiliation or attachment to the party, hence, lack of accountability regarding the social relations (mechanisms). Lewis (1992) in his article titled 'Political transition and the dilemma of civil society in Africa' rightly describes that civil society is substantially for consolidating free participation in politics to achieve common outcomes in the construction of democratic political space in mainly African countries. In other words, the public should have a say in the state's public policy exercise and valued resources' allocation. Hence, according to Lewis, civil society engages in a wide range of relations between state and society (1992, p.35).

⁴⁹ Both the broader concept, in which accountability is seen as a personal or organisational virtue, and the narrower concept, in which accountability is defined as a social relation or mechanism (p. 948).

In other words, people should be able to embrace both definitions of political accountability and should apply in choosing their leaders. After the introduction of democratic institutions in most of the SSC in the late 20th century, both states and civil societies in each country to be blamed for the lack of political accountability in leaders and the public. Firstly, many governments in the continent of Africa stifled sound civic engagements introduced by different civil societies' organizations in the countries by playing clientelism politics as highlighted above. They also constrained the independence of civil society organizations by limiting their resources and using tactics of divide and rule between the civil society organizations. Consequently, the organizations that were supposed to have a consistent message of collectively mobilizing people to have a say in the role of the states regard public policies, allowed to fall in the trap of championing interests of their social group representation. Secondly, despite civil the societies' successes in the introduction of human rights of people in the countries and fighting the injustices of governments, their political mediation between the state and the public fell short of common purposes to achieve empowering people economically and politically. How? Possibly, civil society organizations' representatives focussed more on implementing global moral views than focussing first on context values relevance to political accountability (Bhandari, 2006, p. 7). It is rather explained rightly by Lewis (1992, p. 39) who says that the breadth of democratic public life in different countries hinges on the creation of political society by different levels of political professionals, and representatives' capabilities in managing the transition process after the exit of autocratic governments. It seems to suggest that the current manifestations of democratic public life in developing countries lack values of stable and accountable political societies in the countries.

Furthermore, Baumgarten and Amelung (2017) observe that even though the formation of political participation of citizens in developing countries rely on the level of engagement between the state and civil societies, global public play a crucial role in the political formation. However, they observed that differences in global institutional settings, formalized and non-formalized political participation in countries could lead to various outcomes of political participation of the citizens. Hence, the main actors in each country are the state and civil society that should be responsible and accountable to the formation of political participation in the light of diverse and ever-growing ideals of civil society in the global context. The increased presence of clientelism and patron-client relationships between the political leaders and the public in Sub-Saharan democratic institutions show forms of inadequate engagements between the states and civil societies. How? There seems to have been incongruence between some African contextual, cultural values and universal values represented by civil societies. Hence,

elitist leaders in the countries took advantage and emboldened indigenous people to reject some of the universal ideals (Randall, 1988 cited in Bradley, 2005, p. 545).

Moreover, these leaders attach themselves to the histories connected to pre-colonial orientations, colonialism, and the slave trade aversions that blurs the genuine transition of the African democracies. This seems to be in line with Bhandari (2006, p. 6) who notes that civic societies shaped by Western liberal thought implemented in post-colonial contexts though useful, not adequate in the formation of the right political societies in the developing countries. For instance, Ede (2016) bemoans the lack of dialectical interactions between African context cultures and politics championed by civil societies create the condition of Afropolitanism⁵⁰ that provides a little platform for ideological tolerance and progressive autonomous associational realms. Therefore, the championship of sustained socio-economic improvement in developing countries critically needs political populism whereby citizens shade off cultural misconceptions that have permeated developing countries societies for a very long time. The citizens should have a collective responsibility by being co-creators of a democratic public world⁵¹ imbued with skills, power, and determination needful in addressing the challenges in the societies (Boyte, 2003).

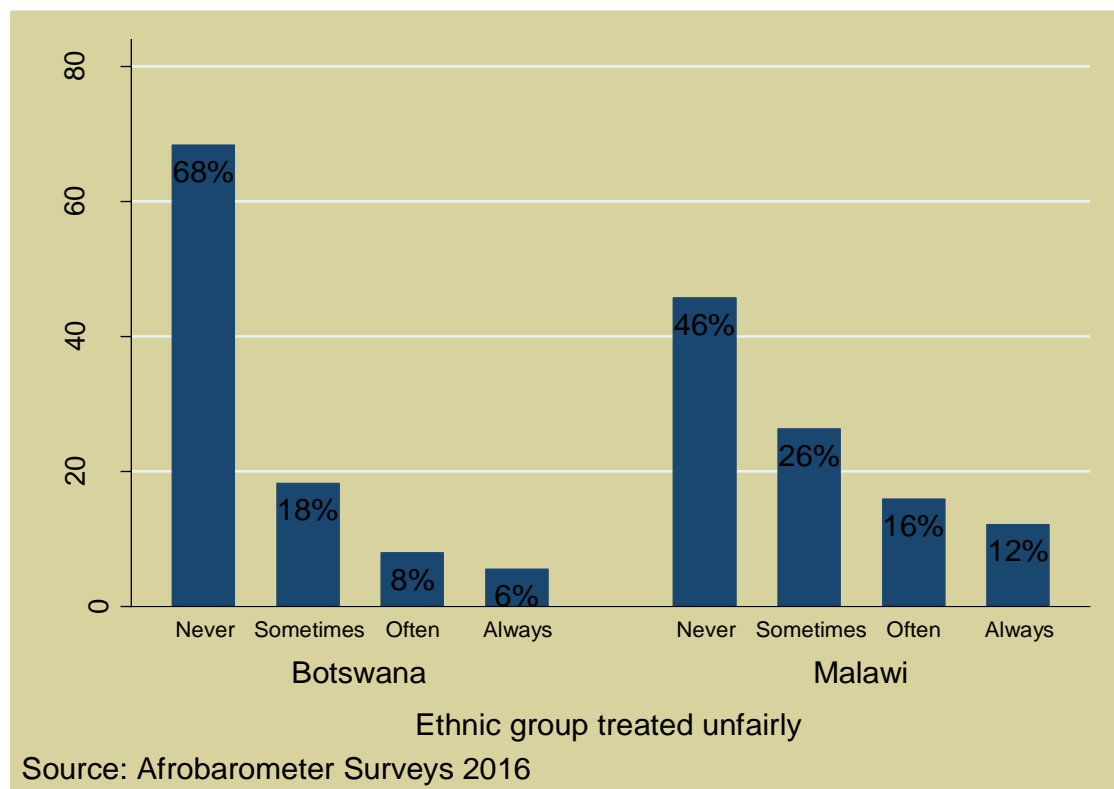
Boyte further elaborated that in the new democracies citizens and civic organizations have a huge responsibility of working hard, being active and bold, independent partners in solving countries' problems, contrary to being apolitical and unfruitful protesters (2003, p. 740). Nonetheless, the elites in the new democracies attempt to monopolize the political platform and economic power of the societies to dishearten any efforts to shape political populism. For example, Akinrinade (1999, p. 238) notes that in countries where there is the presence of clientelism, patron-client relationships, democracy can be a disruptive process whereby existing infighting groups are given a platform to manifest freely. Hence, the very things such as the power of elites, democracy presuppose to gets rid of, the elites can polarise the political arena so that they can hold on the grip on the part they share ideologies (1999, p. 238). The enduring presence of clientelism and patron-client relationships in some SSC like Malawi seem to agree with Cheibub et al. (1996) who observed that countries with less than \$1,000 GDP per capita struggle to enforce democratic principles than those with GDPPC over \$6,000. In other words, citizens with less income are prone more to

⁵⁰ Viewed as a mere capitalist stunt against cosmopolitan values, hence, elitists' orientations (Eze, 2014, p. 239).

⁵¹ The public work as the "expenditure of visible efforts by ordinary citizens whose collective labour produces things or create processes of lasting civic value" (Boyte and Farr, 1997 cited in Hildreth, 2000, p. 627).

accepting the monetary benefits from clientelist in an exchange with votes than those with more able income. It seems to suggest that economic behavior of citizens might be embedded in social structure relations prevailing in the countries other than only in practical conventional wisdom advocated by classical and neoclassical theories (Granovetter, 1985). Social structure relations are manifested in the presidential address by Sklar (1983) cited in Fatton Jr. (1990, p.455) who lamented the failure of the political and economic agendas pioneered by dictators in many African countries by dismantling the tenets of democracy such as unity, cooperation, political and economic freedom; instead they steered ethnic divisions and favouritisms through corruption and injustice. Hence, the political participation of citizens impaired by structural relations fails to influence representative public interests in policy formulation and implementation by the leaders (Duru, 2017, p. 145). For example, Figure 6.27 below appears to indicate that in Botswana about 68% of the citizens think all ethnic groups are treated fairly in the country versus 32% who feel there is to some extent of unfair treatment due to ethnic identity. In contrast, in Malawi, about 54% of the citizens are of the view that ethnic identity plays an essential role for fair treatment comparing to only 46% who consider all ethnic groups are treated fairly in the country. That is an issue in Malawi due to many ethnic compositions as discussed in 6.3.3 above.

Figure 6.27: Ethnic group treatment in Botswana and Malawi

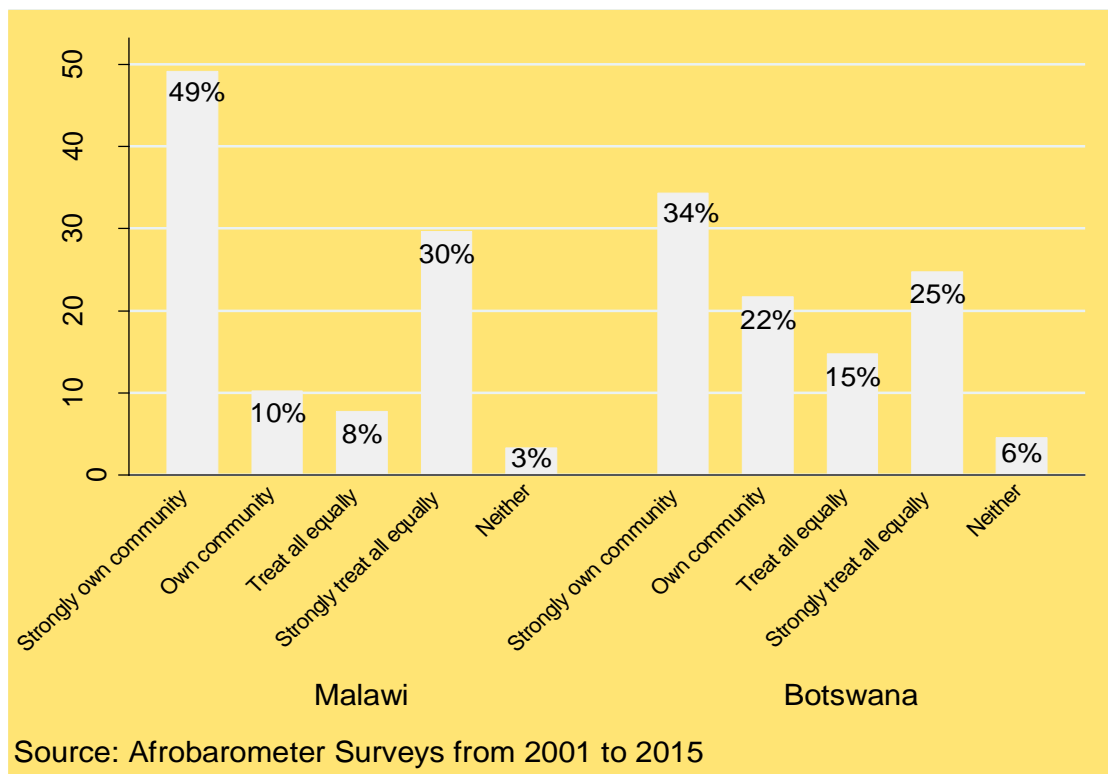


Notes. 54% of citizens in Malawi think sometimes, or often ethnic groups are mistreated comparing to only 32% in Botswana.

Therefore, Figure 6.27 above seems to indicate the presence of ethnic fractionalization in Malawi. According to Van Staveren and Pervaiz (2017) observe that ethnic fractionization in most cases negatively and significantly impacts on economic growth (see for example the studies of Easterly and Levine, 1997; Alesina et al., 2003). However, the negative association of ethnic fractionalization and economic growth according to the van (Staveren and Pervaiz, 2017) are relegated to short or medium-term periods than long term. Furthermore, Fine (2001); Harriss (2001); Dolfsma and Dannreuther (2003); Casey and Owen (2014) suggest that ethnic fractionalization might not be the cause behind the negative connection with economic growth, but, income inequality between ethnic groups. However, van Staveren and Pervaiz (2017) point out that the relationship between ethnic fractionalization and economic growth remained significant and harmful in many empirical studies in the literature. In other words, ethnic fractionalization (diversity) impacts economic growth negatively through features such as suspicion, fear, corruption, riots, conflict or violence between social groups by impairing social cohesion between ethnic groups as observed by (Kanbur et al., 2011). This seems contrary to diversity theory in literature whereby diversity in societies enhances economic growth through markets and cooperation between ethnic groups. Consensus agreements among different groups of people promote equality and tolerance in decision making according to the law of variety (Bear and Woolley, 2011; Zenger and Folkman, 2012; Desvaux et al., 2007).

Nevertheless, the benefits of diversity are eroded when social exclusion between ethnic groups become evident. For instance, Figure 6.28 below 59% of Malawi citizens think leaders should help own community more than treat all equally. In Botswana, about 56% think leaders help own community than treat all equally.

Figure 6.28: Leaders help own community versus treat all equally



Notes to Figure 6.16. Most of the citizens in Botswana and Malawi feel leaders should help more own community than treat all equally.

It is alarming that in Malawi about 49% felt leaders actively should help own communities than treat all ethnic groups equally. Even though in Botswana significantly percentage felt leaders should help own community more than others, the accountable leadership help to bond people together that spurs economic growth in the country. Contrary, in Malawi inequality between ethnic groups through social exclusion (horizontal relationship), has a direct negative impact on economic growth as observed by (Stewart, 2016). Also, Perotti (1996); Alesina and Perotti (1996) observed that social exclusion manifested as socio-political instability impacts negatively economic growth through the distributional mechanism. Moreover, Easterly and Levine (1997) claim that in Africa there is a significant negative association between economic growth and ethnic fractionalization particularly in the period between 1960 and 1990. They attributed negative association to a monopoly for public services, and commercial distribution by dominant groups that further lead to lent seeking behaviors, and none cooperation among the ethnic groups. It seems to relate to the finding in the study by Borooah (2005:399) that unequal treatment between groups of people leads to inequality of household incomes between the groups.

On the other hand, in societies where people have bonded together socially regardless of the size of diversity in ethnic groups, such societies experience economic

growth. For instance, Singh (2011) researched an Indian state of Kerala which has many ethnic groups, yet, his findings show that residents worked with each other very well. This being the case, the residents were politically tied, and all felt belongingness and supportive to the public goods provision leading to higher levels of socio-economic development. There are other studies conducted in different contexts on the same topic namely: Algan et al., (2016) in France; Tolsma et al., (2009) for the Netherlands; Silver and Messeri, (2014) for New York City, and Letki, (2008) British neighbourhoods in the UK. They all concluded that socio-economic deprivation among the ethnic groups erodes community social cohesion that in turn lead to a weak economic performance in the respective communities. This seems to suggest that how the ethnic groups are positioned socially in the countries and how the individuals relate to each other determine the levels of social cohesion which play a crucial role in the economic performance of the countries. Failure to address low levels of cohesion between ethnic groups in most cases lead to conflicts such as those taking place in Rwanda, Sudan, South Africa, Uganda, and Zaire experiences of weak economic growth are manifested (Bush and Saltarelli, 2000).

Hence, the views of participants that leaders should actively help own community than others particularly in Malawi erodes SOC and CPR which are essential for economic growth. Duru notes that lack of trust in democratic transitions push the citizens to private realms away from public to avoid frustrations, leading to low political participation in developing countries (2017, p. 148). Even though political participation is vital in the democratic transition in developing countries, there is yet more admired aspect expounded by Boyte and Kari (1996) as directed citizen action to public work which earns their ultimate goal of satisfaction than personal achievement. Moreover, it seems Botswana sets an excellent example of the relationship between leaders and their citizens. If in the democratic transition period in countries such as Malawi, both the government representatives and civil society organizations could emphasize public participation as one of the critical components of democratic institutions, then this orientation can embody citizens to be co-creators of the public world. It seems to suggest that SOC and CPR are essential aspects in matters concerning good governance because out of them the accountability and responsibility of civil servants who exercise considerable discretions in charging their duties in public bureaucracies originate. While acknowledging the fact that decisive leaders are vital to enforcing policy implementation, bureaucratic personnel are equally crucial in molding public policies. Kranz (1976); Krislov (1974) state that each bureaucratic individual has attitudes and values that influence their behaviors originated by socialization since their childhood. Hence, representative bureaucracy is desirable in democratic institutions so that all interests in the formulation and implementation processes of policies are taken on

board. The bureaucratic representation may vary from country to country, but, generally in developing countries to have sound representation in the bureaucracies is when the most vulnerable are considered in the processes of policy formulation and implementation. According to Selden (2015) presence of minority in bureaucratic personnel shares values and attitudes with those in minorities, hence, helping to formulate policies that are effective in providing their needs. However, Meier and Nigro (1976) claimed that representative bureaucracy might not produce the desired results due to the conditions practiced in the organizational hierarchy. The organizational values and norms may be inculcated into employees whereby representative bureaucracy theory can be weakened.

Alberts (2009) in her article titled 'how Constitutions Constrain' explains that the fundamental purpose of democratic constitutions is to control the power of the political leaders as they charge their duties. The public expects that the political leaders will exercise their authority within the democratic norms as per the constitution. However, Alberts observed that the expected democratic norms could vary from country to country due to historical trajectories' differences reflected in their norms and values (2009, p. 127). Therefore, the differences in democratic institutions among countries, also, hinges on how the elites adhere to the established norms in line with democratic procedures and rules in the constitution. Failure of political elites to strictly follow the democratic rules and laws, citizens' constitutional right to participate in public spheres concerning their interests such as socio-economic development is undermined.

Similarly, Zakaria (1997, p. 22) argues that illiberal democracies are being watched taking hold of transitional democratic countries whereby the elected officials undermine the constitutional rules and laws to pursue their interests at the expense of peoples' freedom rights. Therefore, participation in elections does not necessarily mean the country is following democratic rules or laws. Hence, Zakaria concluded that advanced countries give contradicting information by emphasizing multiparty elections while at the same time failing to enforce the canons of liberal governance in democratic transition countries (1997).

Nonetheless, Clark (2000) claimed that despite democracy implementation shortfalls, democratic elections remain a vital feature in changing the regimes that do not adhere to the tenets of democracy through the pressure by international community together with civil societies organizations in the transition countries (Ekiert et al., 2007, p. 13). Kapstein and Converse (2008) explain that failure of regulating the power of the executive branch, stifles other arms of government, hence, investors, and agents of civil society doubt if the policies for the general welfare of the public could be formulated and implemented. This being the case, the ultimate goals of democratic institutions of reducing political inequality and redistribution of the income resources are hampered in

the process of consolidating democratic institutions in developing countries. Even more, worrying for democratic institutions in developing countries is the recent nationalist waves in established democracies in USA, Canada, and Western Europe. For instance, Mounk (2018) notes that for decades democratic institutions have excelled in the advanced countries and there was consistent and broad political consensus among the people that provided a sense of future in the world. However, in recent years the most developed democracies are experiencing polarised politics, and people seem to shun away from the tenets of democratic institutions (Galston, 2017, p. 23; Mounk, 2018, p. 99). For example, the rise of Donald Trump in the USA, Marine Le Pen in France, Brexit in the UK, and Viktor Orbán in Hungary to mention a few. The rising of populist movements in the advanced democracies could embolden the tendencies of clientelism and patron-client relationships in transition democracies. Why? In some way, the civil society organizations championing the tenets of democracies in transition countries could be in a dilemma due to the divide taking place politically in the Western countries. Hence, the elites in developing countries could rejuvenate their ambitions of swaying citizens away from democracy by shaping the developing countries institutions. Equivocally, according to Galston (2017), the rise of populism in advanced countries might be due to the failure of the elected most liberal governments to meet the expected political and economic policies by the public. Hence, recently, the public seems to have lost confidence in the liberal governments, and the support waned away. However, Huntington (1991) argues that democratization in the developing countries remains the most significant political development internationally in the twentieth century. Therefore, Malawi leaders need to embrace good governance and social mobility policies that could help to bridge differences due to tribes of the citizens in the country to reasonably reduce inequality among people in Malawi as suggested by (Arun et al., 2016, P 535).

6.4.3 Competition good for economic growth in Africa

GCI defined as the productivity and efficiency of countries can help to explain economic growth differences in Malawi and Botswana. The findings summarized in Table 6.1 above indicate that the competitive environment is crucial for consistent and robust economic growth in the countries. Therefore, this sub-section is going to scrutinize some factors that create competitiveness differences between Malawi and Botswana. The factors used for comparison of competitiveness between Botswana and Malawi may not address all the conditions for providing a competitive environment in the countries. However, may highlight the potential weaknesses in the present application of competitive environment mainly in the slow-growing economy countries. For instance, the competitiveness of countries could be due to the differences in gross capital formation (GCF). GCF could illustrate capability differences in production between

Botswana and Malawi as observed by (Cohen and Uphoff, 1980, p. 216). Figure 6.29 below illustrates the utility capability differences between Botswana and Malawi whereby GCF showed as a percentage of GDP is higher in Botswana than Malawi. In the same vein, the figure also indicates that Gross Fixed Capital Formation (GFCF) is higher in Botswana than Malawi. GFCF is the net saved after subtracting consumption from GCF. The net saving increases capital stock levels (RKN) when invested in the economy, hence increasing the capacity to produce. Also, Figure 6.29 below reveals that the Gross Fixed Capital Formation in Private Sector (GFCFPS) is higher in Malawi than Botswana. Why? It seems to suggest that private sector in Malawi have a responsibility to utilize the resources they have to survive in the respective competitive businesses.

For example, Figure 6.30 below shows differences in the ownership of firms in Botswana and Malawi. The figure reveals that the ownership of firms by the government in Botswana declines with time while in Malawi the ownership by government increases with time. Also, the ownership of the firms by foreigners in Botswana increases with time while in Malawi declines over time. It seems government ownership policies are not productive of capital formation in Malawi and instead increase consumption possibly due to inappropriate use of resources. Therefore, for Malawi to enhance capital formation need to diversify government's acquisitions or ownership and increase competition by allowing more foreign investors into the country as observed by (Arun and Turner, 2004). This seems to explain why Botswana manufactured goods in Figure 6.32 below add more value to the economy than in Malawi. Malawi consumes more per capita as a percentage of GDP than Botswana as demonstrated in Figure 6.31 below.

Figure 6.29: Private sector seems more productive in Malawi than Botswana

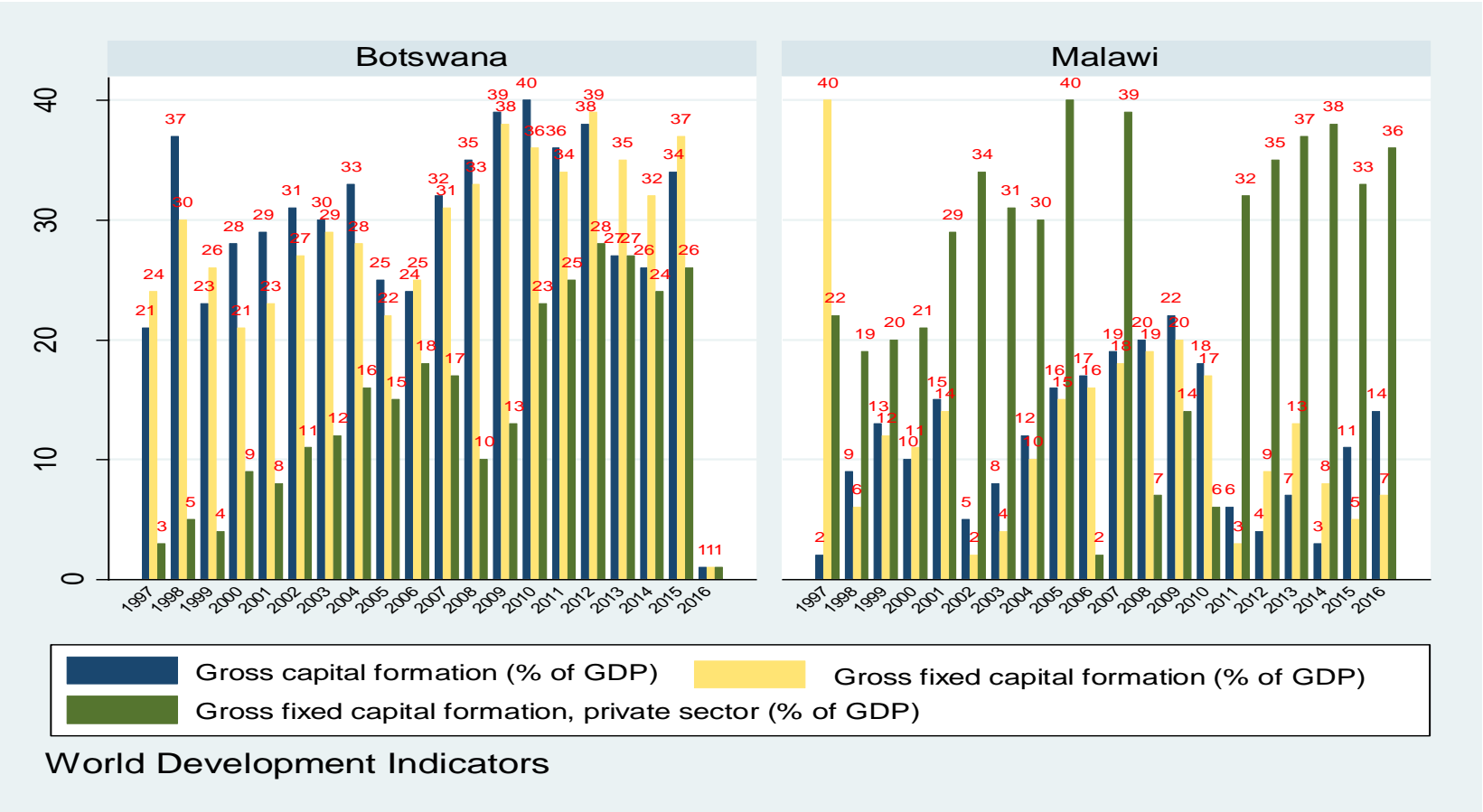
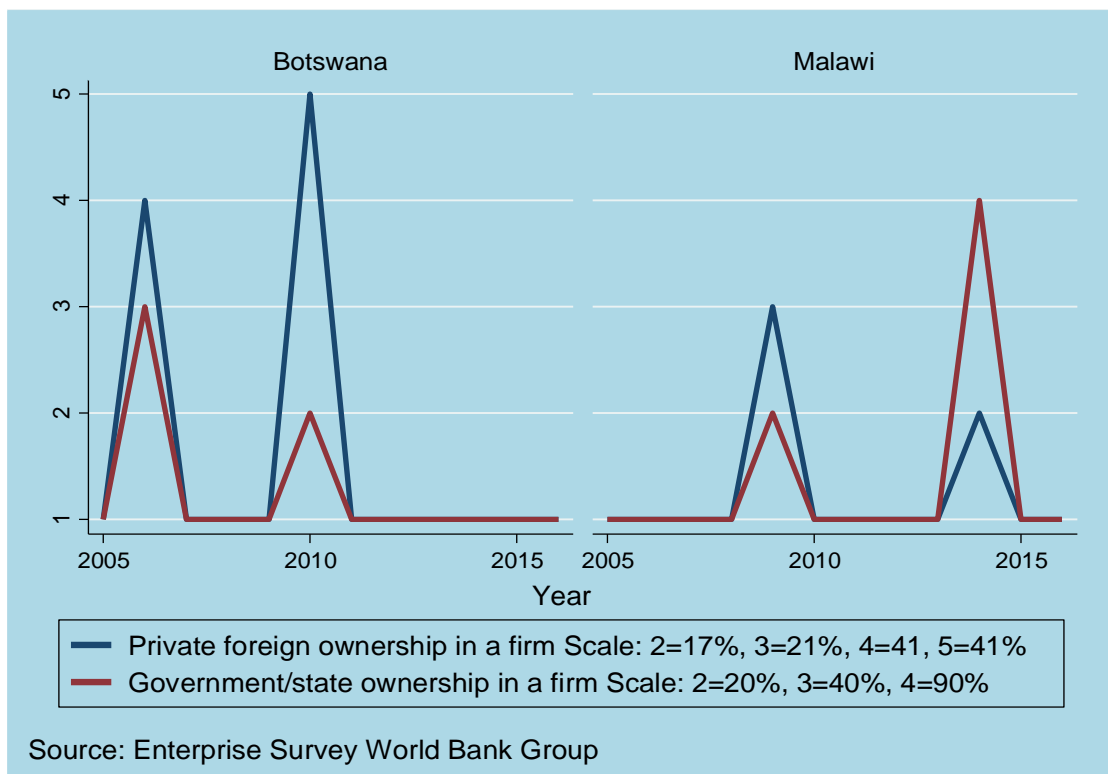


Figure 6.30: Ownership of firms in Botswana and Malawi



Notes. Government's firm ownership decreases over time in Botswana while in Malawi increases rapidly.

The household consumption in Malawi in Figure 6.31 below is much higher over the period than Botswana. The differences in household consumption between Botswana and Malawi also illustrate differences in utilization capability. It appears to suggest that Botswana effectively formulates policies relevant to the needs of its citizens and mobilizes its resources to meet the targets desired in a competitive environment. In contrast, Malawi ineffectively directs the policies and resources they have to unproductive ends such as diverting resources for personal gains of the people in authorities. Therefore, the differences in utilization capability between Botswana and Malawi could be due to corruption malpractice as suggested by (Collier et al., 2008a). For example, graph 4 in Figure 6.34 below shows the household consumption in Malawi was lower in the years 2014 and 2015 while the gross capital formation and capital stock levels were higher in these two years than other years over the period. Why?

According to SOAS University of London, (2013) under the leadership of Dr. Joyce Banda (Her Excellency former President of the Republic of Malawi), financial maladministration was uncovered and was dubbed cash gate of public money. As a result, Malawi did not receive budgetary support from the international bodies such as IMF, the World Bank, and developed countries. After a change of government in May 2014, new leaders had to meet the demands of the donors' community to rectify the

flaws in the Malawi financial systems. Hence, the new the leaders were forced to utilize the available resources for their survival which might have led to better performance of Malawi in the years 2014 and 2015. Therefore, graph 4 in Figure 6.34 seems to illustrate the point that Botswana utilizes its resources better than Malawi.

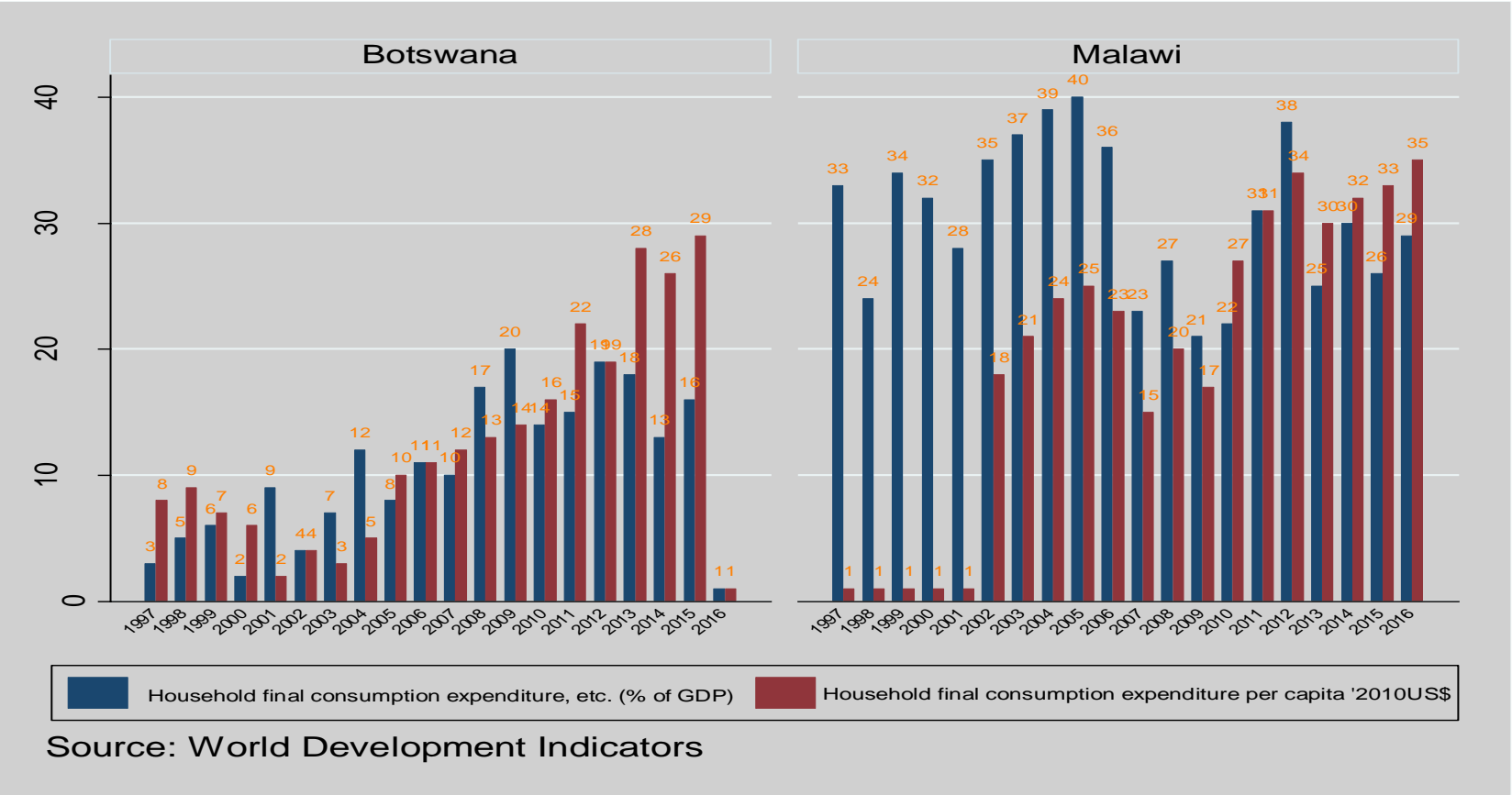
Moreover, Malawi could catch up with Botswana regarding economic growth even though there could be differences in richness of natural resources in the two countries. The differences in utilization capacity between Malawi and Botswana could be as previously demonstrated in sub-section 6.4.1 whereby governance is a crucial element in enhancing competitive settings in the countries. Therefore, the analysis presented in this sub-section seems to explain why RKN presented in Table 6.1 above fails to enhance economic growth in OLS3 (developing), OLS1SSC, and SlowOLS1SSC models. Table 6.1 also indicates that RKN in FastOLS1SSC model insignificantly reduces economic growth due to possibly the formulation and implementation of policies that enhance gross capital formation as discussed above.

Of course, the competitiveness of countries also depends on the accountability of the institutions. For instance, according to information at BBC: Botswana (2017), Botswana is one of the most stable countries politically in the African continent with the long-term uninterrupted democratic system. Botswana is also known as a peaceful and an open society encouraging live debates of ideas. These seem very important in political participation and engagement of the citizens so that they have best ideas for dealing with the challenges the country faces. That may also increase the competitiveness of the country. On the other hand, Malawi politics show signs of instability in that after independence there was an authoritarian government until early 1990 were when the country changed into the multiparty democratic system as discussed in sub-section 6.3.2 above. Since, then democratic institutions have taken shape in the country (BBC: Malawi, 2017). The undemocratic tendencies of the government towards opposition parties, media, and academic institutions discourages live debates among its citizens. Hence, differences in political environments between Malawi and Botswana seem also to give Botswana competitive advantage in foreign business investments over Malawi.

Other attributes such as Rule of Law (ROL), Regulatory Quality (REQ), Voice and Accountability (VOA), and GEF are all critical for the success of the aggressive policy implemented in both Malawi and Botswana. For instance, the competition policy in Malawi was sanctioned in 1997, and its three objectives were reducing business entry barriers; decreasing restrictive business practices; and protecting consumers. The lower scores of attributes in Malawi in Figure 6.13 above suggest that the implementation of the competition policy by Malawi Competition and Fair Trade

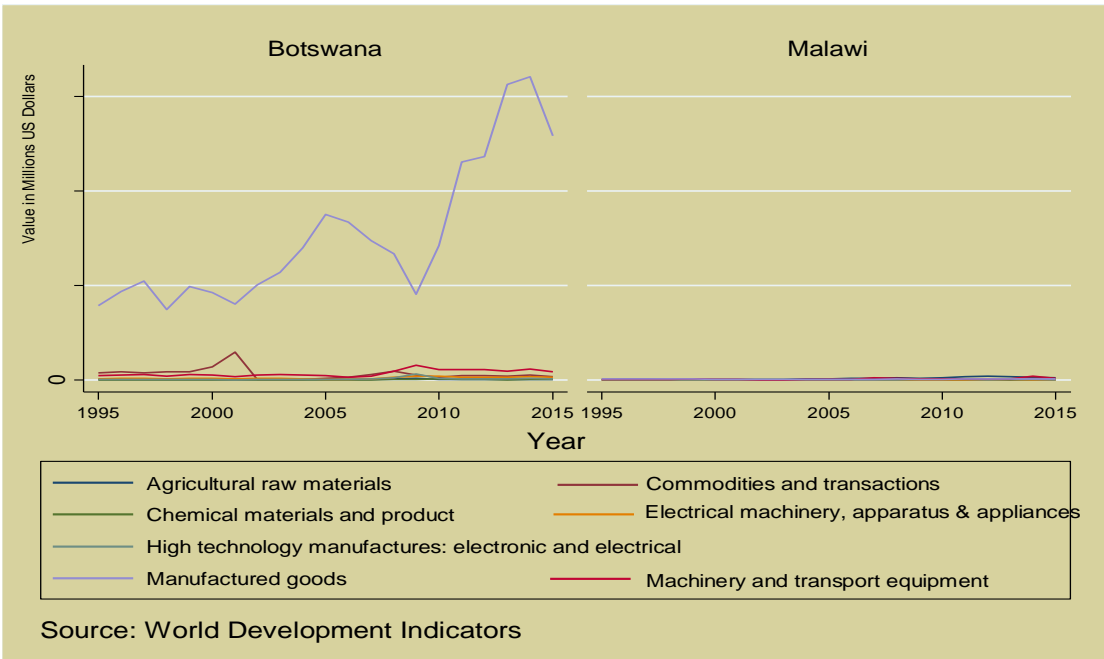
Commission (MCFTC) met difficult challenges, hence, failing to enhance competitiveness in Malawi (Sengupta and Dube, 2008, p. 6).

Figure 6.31: Household consumption in Botswana and Malawi



The differences in the implementation of aggressive policies are evidenced by the competitive attribute scores in both countries whereby Botswana has higher scores than Malawi see Figure 6.13 above. For example, the competition policy in Botswana was adopted in the year 2005. However, due to political will, by 2007 it was drafted into law. Moreover, Botswana's better implementation of aggressive policies demonstrates that it adheres to the ROL, REQ, VOA, and GEF better than Malawi. Figure 6.13 above also illustrates the better business environment in Botswana than in Malawi. Hence, the differences in competitiveness between Malawi and Botswana depends on environmental attributes highlighted in the figure. Consequently, better conditions for competition as indicated in Figure 6.13 above in Botswana, Botswana seems to have a higher share of manufactured exports than Malawi. For example, Malawi is ranked 135 out of 143 countries regarding manufactured exports while Botswana is ranked 79 as illustrated in Table 6.2 above. Furthermore, Figure 6.32 below demonstrates the value of goods Botswana and Malawi profit from the exports of manufactured goods. The value of manufactured goods in Botswana is very high comparing to Malawi manufactured goods.

Figure 6.32: Value of goods exported from Botswana and Malawi



Notes. The value of other goods apart from manufactured goods are relatively low in both countries.

That being the case, Figures 6.29, 6.30, 6.31, and 6.32 above demonstrate that GCI explains economic growth differences between Botswana and Malawi. Therefore, the explorations in this section confirm the findings in chapters 4 and 5 that competition

is vital to the enhancement of economic growth in the SSC region. That is in line with Galvan (2016, p. 2-4) who noted that African countries lag in GCI compared to other regions. Therefore, improvement in environmental attributes and utility capacity in countries would enhance economic growth considerably in the SSC region. Of course, economic growth depends on many different explanations, but the models demonstrated in Table 6.1 above provide some of the critical aspects of economic growth in the samples of countries addressed. The next factor to be explained is how foreign aid (AID) explains economic growth in Botswana and Malawi.

6.4.4 Foreign aid (AID), Self-reliance, dependency, and economic growth

Dijkstra (2018) claims that AID initiative to developing countries was mainly directed to hooking these countries from adopting communism system during the time of cold war. He, however, pointed out that after the end of the cold war the objective of aid to developing countries was shifted to the reinforcement of democratic accountability and human rights. Similarly, Dunning (2004) suggests that in the cold war period AID had significantly and negatively impacted introduction of democracy mainly in African states because the conditionality of AID relied on a geographical position between the Soviet Union and the western countries. Nevertheless, during the post-cold war period, African leaders lost leverage for conditions of AID and were forced to implement democratic institutions as conditional for AID by the Western donors. Hence, AID seems to have had a negative relationship to democracy in cold war period and a positive relationship in the post-war period. Nonetheless, Hoebink (2006) observes that in the 1980's donors noted little progress in democratic and human rights implementation in developing countries. Hence, they focussed their goal on the creation of effective governance in the AID recipient countries.

The nature of the disagreements of the effectiveness of AID particularly in developing countries possibly lead to Paris Declaration on aid effectiveness whereby the extent of ownership of AID projects between donors and developing countries were discussed regarding the alignment of AID to local systems and local priorities (Paris High-Level Forum, 2005). They believed that this could enhance harmonization and cooperation between donors and developing countries. However, this approach is without setbacks, for example, Bigsten and Tengstam (2015) agree that aid cooperation between donor and recipient countries reduce donor transaction costs and provide a pleasant atmosphere of donors achieving their objectives. However, it would at times compromise poverty reduction usefulness due to loss of political control to recipient countries. Hereafter, the donor countries might compromise some of the intended objectives against the importance of the political control.

Nonetheless, according to Bigstein et al. (2011) donor countries in the presence of political incongruities, they might develop other mechanisms of monitoring the recipient country by collecting governance information. If the inappropriate behavior of the recipient country is identified, donor countries would circulate amongst themselves and enforce conditions to deter such behavior. However, coordination among the donor countries may face challenges. Hence, enforcement of the Paris Declaration on aid effectiveness could not yield desired outcomes. For instance, Wood et al. (2011) observed that some countries not part of Paris Declaration such as Brazil, China, and Venezuela do not enforce conditions declared by other donor countries. While on the same, Moyo (2009) states that lack of responsibilities of African leaders incites other people mainly from developed countries to fill in the leadership vacuum of providing quality services to a sizeable African populace. Moyo, further questioned the conditionalities provided by the donors to curb ineffectiveness of aid to developing countries whereby the institutions such as World Bank and International Monetary Fund exist by lending money out to countries (2009). Similarly, Easterly (2002) argues that despite the good intentions of the international institutions such as the World Bank (WB) and International Monetary Fund (IMF), their bureaucracies appear to hinder output-oriented services targeting the poor. Easterly, claimed that the intended recipients have no direct link to give the real feedback, instead are represented by their governments who might have used the intended aid for other targets other than the one's aid was intended to achieve.

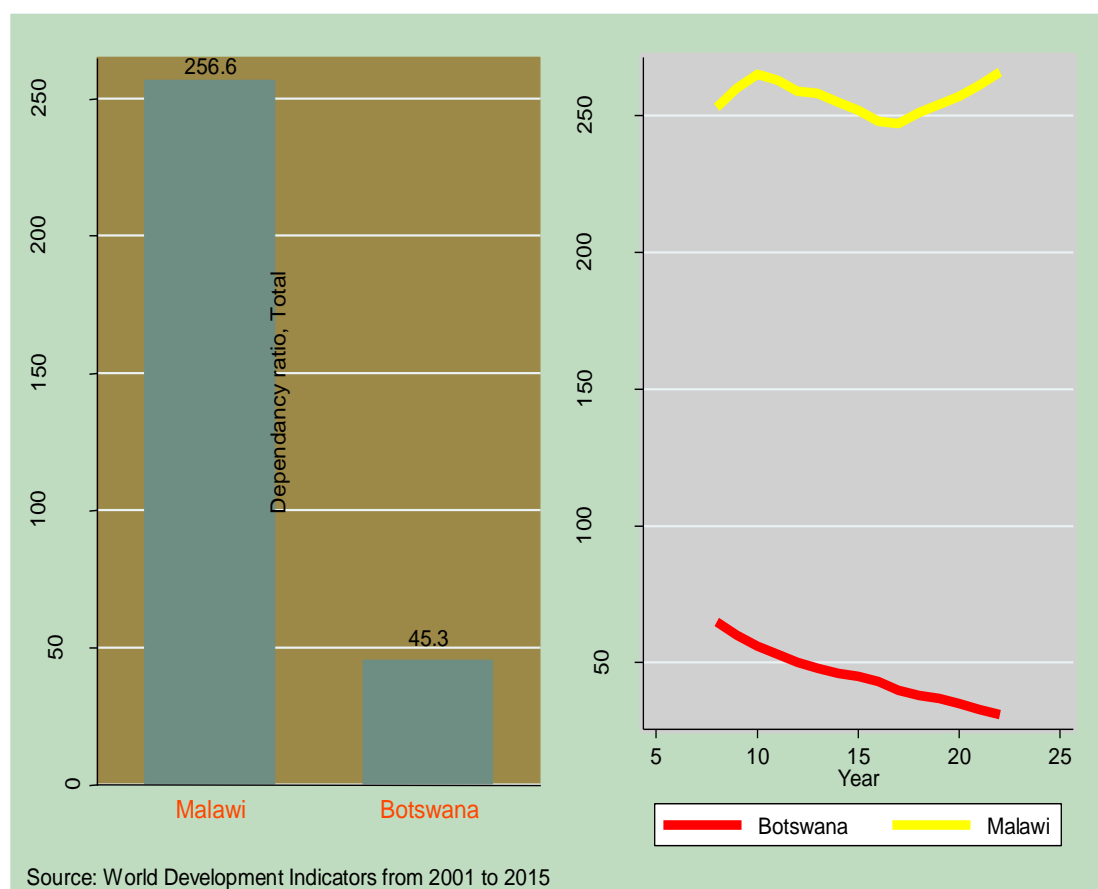
Besides, Moss et al. (2008) claimed that after their review of evidence of the relationship between inflows of AID versus local revenues in Sub-Saharan countries, they concluded that countries that consistently receive more AID inflows are less accountable to their citizens than the countries that rely on revenues collected locally. Similarly, Asongu (2015) argues that taxation, political accountability and foreign aid on 53 African countries concluded that countries heavily rely on AID are weak in governance indicators than those who depend on local tax avenues. Nevertheless, some studies such as Jones and Finn (2016) claim positive relationship particularly inflow of AID to developing countries on good governance. However, they acknowledge that the aggregate inflow of aid to developing countries has a minimal positive effect on economic development. Furthermore, Dijkstra (2018) researched on aid and good governance and examined its unintended effects in developing countries. He concluded that AID improves governance in the countries and improves the task of controlling corruption.

The findings in this thesis summarized in Table 6.1 above indicate that AID significantly reduces GDPPC (GDPPCG) in OLS1SSC and SlowOLS1SSC models. In contrast, in FastOLS1SSC model AID insignificantly reduces GDPPCG. That is the

reason why Botswana and Malawi were chosen to be typical cases representing fast and slow growth countries see details in section 6.2 above.

Generally, the findings seem to agree with other findings in the literature, but, the finding that FastOLS1SSC model has the less negative impact of foreign aid than SlowOLS1SSC model necessitates further exploration. Figure 6.33 below shows that the average dependency ratio in Malawi is almost six times higher than Botswana over 15 years period. Also, the dependency ratio is declining with time in Botswana while in Malawi is increasing with time. What does this imply in managing their economies? Figure 6.34 below shows four graphs numbered one to four depicting capital stock (RKN), RKN formation, total factor productivity (TFP), and house consumption (HSECO) respectively. Graph 1 in the same figure shows Botswana has higher levels each year from 2001 until 2013. Malawi has surprising higher levels of RKN in 2013 and 2014. Why? Capital stock levels cannot explain Malawi's better performance in 2014 and 2015 from the previous years because Botswana had much higher capital stock levels than Malawi. On the other hand, graph 2 indicates that there are notable differences in gross capital formation between Botswana and Malawi.

Figure 6.33: Dependency ratio differences between Malawi and Botswana



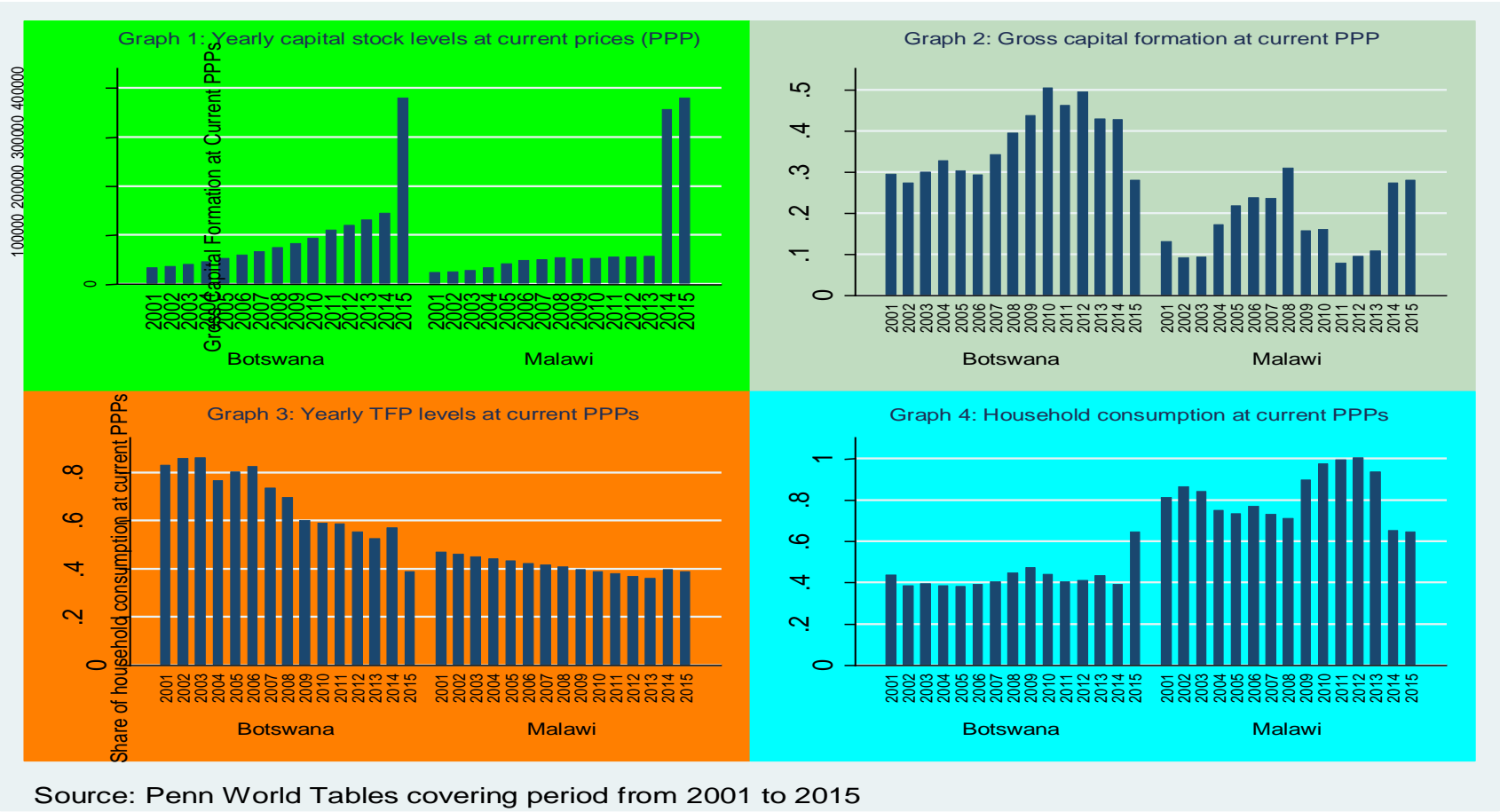
Notes. The dependency ratio in Malawi is six times more than Botswana

Furthermore, Graph 3 below in Figure 6.34 below shows that Botswana has higher TFP than Malawi. The productivity in both countries has been declining over the period from 2001 to 2015. It may suggest that both countries might have improved on input production factors that each year chips away the TFP of the countries. For instance, gross capital formation in graph 2 shows a steady increase of RKN formation in Botswana but not the same in Malawi. The differences in RKN formation between Malawi and Botswana illustrate capability differences in production between the two countries (Cohen and Uphoff, 1980, p. 216). The differences in RKN formation could be due to the point illustrated in graph 4 in Figure 6.34 below. This graph shows that Malawi household consumption (HSECO) is much higher in each year over the period than Botswana. The differences in HSECO might illustrate differences in utilization capability. It is further developed in the next sub-section.

6.4.4.1 Impact of AID in Botswana and Malawi economies

Graph 4 in Figure 6.34 below shows that the households in Malawi have higher consumptions than Botswana suggests that Malawi attains lower investments and savings than Botswana. The implication of this is that RKN formation in Malawi is limited compared to Botswana, as noted in graph 2 in Figure 6.34 below. All this seems to suggest that Malawi could lead to lower capital levels and hence lower economic growth than Botswana. It is contrary to the assumption of the neoclassical theory that countries with lower capitals grow faster than those with higher capitals. The analysis in this section confirms the findings in chapters 4 and 5 whereby countries with lower capitals fail to catch up with those with higher capitals. Higher dependency ratio and higher consumption of households in Malawi as demonstrated in Figures 6.33 above and 6.34 below.

Figure 6.34. How Botswana and Malawi manage their economies

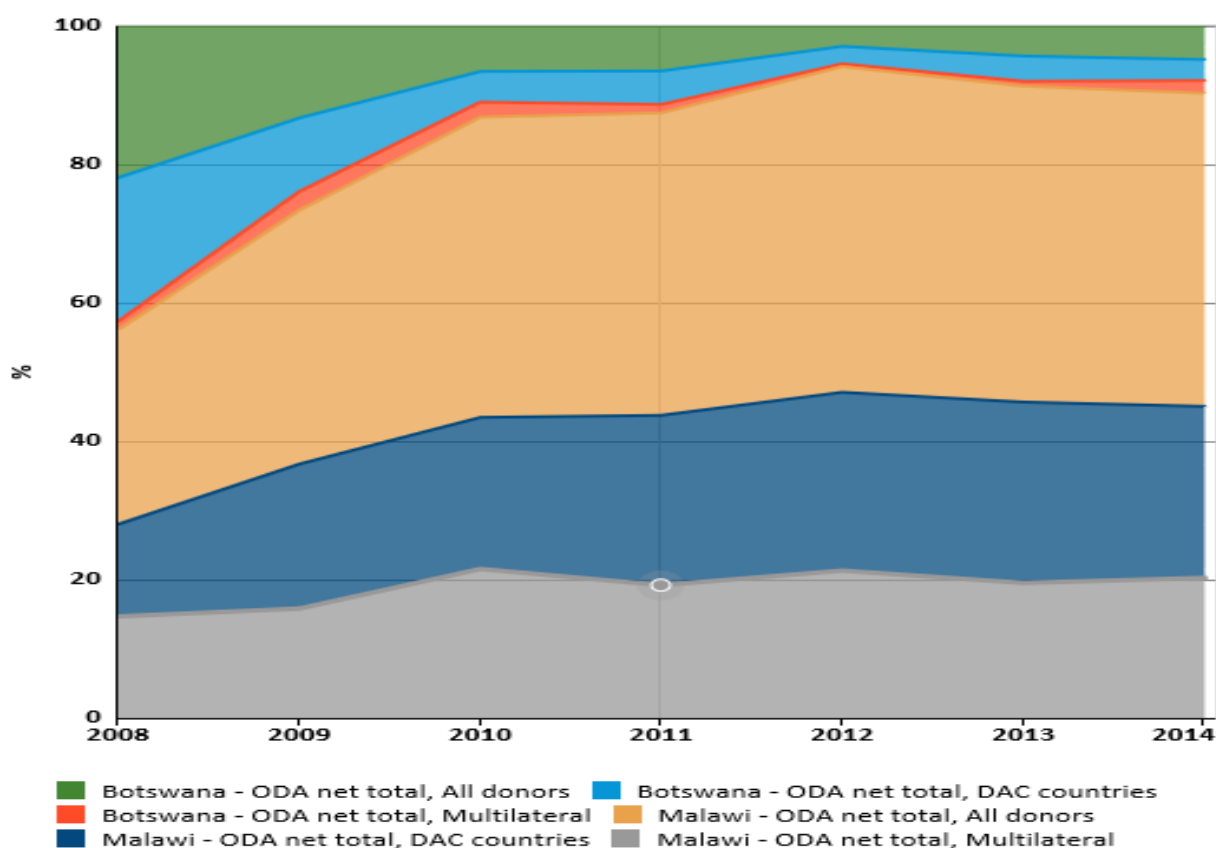


Notes. This figure demonstrates the managing capacity of Botswana and Malawi regarding their economies.

However, what about AID money coming into the country? Figure 6.35 below shows three indicators of AID received from developed countries over the period from 2008 to 2014. AID indicated by green color is the net total of official development assistance (ODA) from all donors to Botswana. In the year 2008 Botswana received about 20% of the AID, and this aid kept declining to about 5% in 2014. In contrast, Malawi received about 30% of ODA from all donors in 2008 and kept on increasing to about 40% in 2014.

Furthermore, both Botswana and Malawi received ODA as countries in the DAC list. Botswana received about 20% in 2008 and declined to about 4% in 2014 while Malawi received about 15% in 2008 then this AID increased to about 25% in 2014. Lastly, Botswana received about 2% ODA (multilateral) in 2008 which remained constant until 2014 while Malawi received about 17% of ODA (multilateral) in 2008 which increased steadily to 20% in 2014. The observations described above seem to indicate that Botswana utilized assistance to deal with the needs of the country while Malawi failed to utilize this assistance as demonstrated in Figure 6.35 below. Malawi seems to be a consuming and a dependant syndrome society while Botswana seems to be a responsible and self-reliant society, this is further discussed in the next sub-section.

Figure 6.35: AID to Malawi in different forms from ODA ever increasing



6.4.4.2 Self-reliance, dependency, and economic growth

Self-reliance concept is mainly associated with economic growth using available resources and ability of the citizens in the country (Galtung et al., 1980; Preiswerk, 1980). This concept is also linked with self-help and mutual-help, cooperation and commitment of people who are capable of meeting the needs faced by the community (Ghai et al., 1977; Fonchingong and Fonjong, 2003, pp.199-200). Therefore, self-reliance concept seems to relate to utilization capacity demonstrated in Figure 6.34 above. In contrast, dependency syndrome takes place when people capable of doing things for themselves rely on other people to do for them. Consequently, dependency mode of thinking creates economic dependency which seems to be the norm in some countries in the SSC region. Why?

According to Mudimbe (1988, p. 3), the psychological dependency syndrome in developing countries, particularly SSC region, was inculcated by colonizers whereby it was the norm for subservient attitude to be embraced by the colonized. He associated socio-economic challenges presently in SSC to the submissive orientation of people in the region. That seems to resonate well with the words of former President Barack Obama of the United States of America who observed that "Africa's future is up to Africans," in other words, Africans have to own solutions to the challenges they face to give their citizens better conditions of life (Quartapelle, 2010). The concepts of self-reliance and dependency conditions are the opposite ends of the ownership spectrum of economic growth, particularly in SSC. The rationale of ownership determines policy choices, commitment to chosen policy-direction, participatory governance, administrative and technocratic managerial capacities as observed by (Castel-Branco, 2008, p. 5). However, the ownership of these concepts reflects the socio-cultural and political attitudes or perceptions prevailing in the societies. Moreover, these perceptions and leanings could affect economic growth in countries differently.

Englebert (2000) states that most countries in the SSC region have poorly performed regarding economic development compared to other regions of the world. He, however, observes that within this region there is the substantial inconsistency of economic performances of the countries due to differences in intra-cultural experiences. In other words, within the region, few countries such as Botswana, Mauritius, and Cape Verde have generally performed better than most of the countries. Why? To explain considerable variation among Sub-Saharan countries, Englebert (2000) used the neo-patrimonial theory by observing the degree of incompatibleness between pre- and post-colonial institutions. He also argued that the extent of the collision in a country between pre-colonial and post-colonial institutions determine the capability of the country versus its economic growth. In his reference to the pre-colonial period, he associated under-

performance of economic growth in most of the African countries to the survival of the African leaders who grabbed their leadership from colonial masters by advocating neo-patrimonial strategies (Jackson and Rosberg, 1982; Sandbrook, 1986; Lewis, 1996 cited in Englebert, 2000).

Moreover, most of the African leaders had little interest in the artificial polities instituted by colonial masters but instead cherished pre-colonial peasant type of societies. This type of affiliation between the leaders and citizens according to Scott, (1972) is called a patron-client relationship. Scott explained that bureaucracies and political parties infiltrated by such relationship undercut established formal institutions in the countries (1972). It seems to suggest that the bureaucrats in respective positions might charge their duties by following intimate connections other than the duties vested them constitutionally. Also, political parties and their leaders champion the interests of the affiliated groups at the expense of all citizens in countries. In societies where most people are poverty-stricken, unfair distribution of the resources can be a stimulus for conflict. Also, people can be vulnerable to the elites in exchange for their security in a very unfriendly environment. For instance, Kaufman (1974) argued that the theory of patron-client relationship is generally applied to a hostile environment whereby the people with the low status submit to those with social, political, and economic power in the environments described above. In other words, the clients in the low-status type of life are characterized by the extreme scarcity of necessary things to their lives. Powell (1970) ascribe to such environment as peasant society whereby people rely on cultivation with limited resources, hence, hindering their productivity.

Consequently, people are prone to a lack of essential things. According to Powell, the verity of lack of necessary things leads to patterns of social relations that help to navigate the challenges and for security reasons (1970). Some social relationship patterns in peasant societies may fall within the patron-client relationship whereby there is reciprocity of goods and services. However, principally the low-status clients obtain in the form of provisions or security from threats while the high status (patron) may get personal services or administrative services such as being elected into the respective office of influence. The behavior of the low-status clients according to Smith (1776) cited in Jancsics (2014, p. 359) seem to practice utility maximization since they will benefit socially (Ansell, 2018; Fox, 1997). The discussions about neo-patrimony and patron-client theories to some extent recount realities in developing countries. Does this reflect the situation in Malawi? Possibly, Figure 6.35 above shows Malawi receives more aid than Botswana, yet economic conditions are better in Botswana than Malawi see Table 6.2 above. In contrast, Ryan (1998) states that people in the West (developed countries) perceive that democratic governments (whereby officials are elected in positions) ought to be judged by the extent they perform in the needs and wants of the

public. Hence, politicians are elected in offices basing on issues other than the money they have raised or spent on campaigns. Ryan warns that in societies where politics do not reflect hardship realities of people could experience apathy when people withdraw from participating in politics. That seems to be the case in Malawi because Table 6.7 and Figure 6.21 above indicate Malawi citizens are not happy with the performance of their leaders. However, it might also suggest that the elites in Malawi (slow-growing developing countries) are so sophisticated in mobilizing people of low status mainly in rural areas of the countries by introducing cheap and short-term policies to prolong their grip on power in the countries. In other words, the relationships between leaders and people in developing countries might wholly depend on individual accountability other than the public accountability. Sandbrook (1972), also, acknowledges that instead of people of the same social classes from all the ethnic, social groups uniting for collective welfare, they pursue their material interests associative with the patron-client network. Hence, he noted that people who lack material things easily sell out their votes to social, economic and influential people in the form of Clientelism.

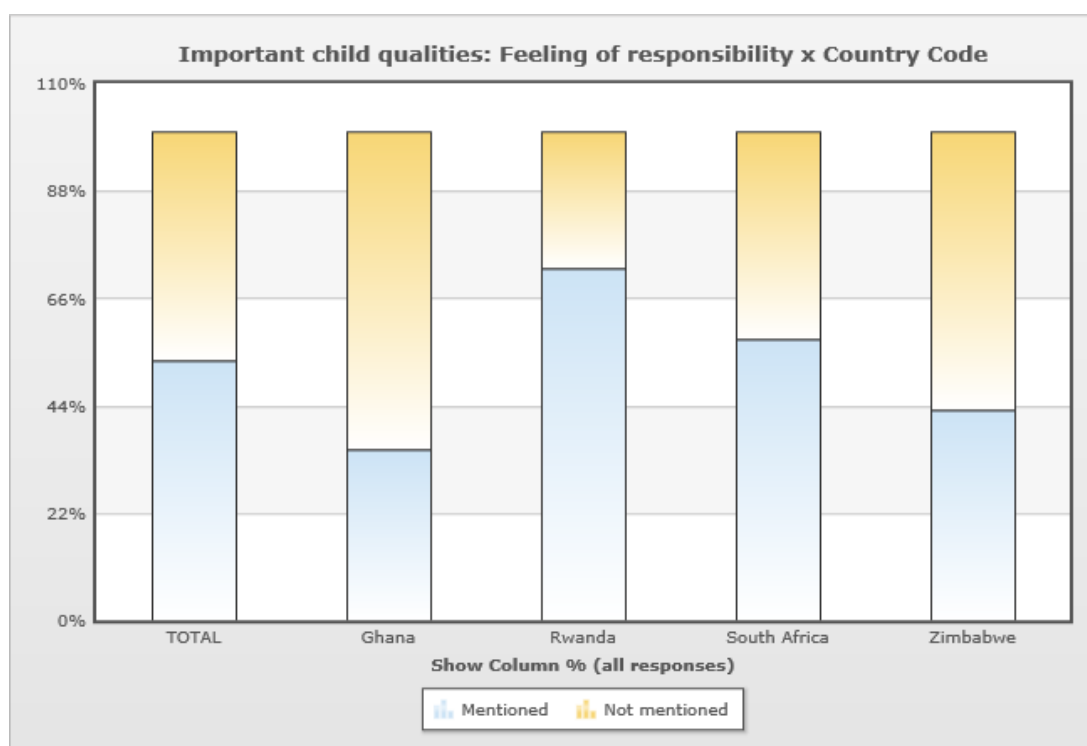
Why is it that some of the leaders in the SSC region seem to engage theories such as neo-patrimonial, patron-client, clientelism, and principal-agent? Probably, most of them are afraid to champion political institutions reforms because they think can create electorate uncertainty, hence, fear of not being elected to the office of power and control. Alternatively, they create AID dependency syndrome to retain power so that they can misuse countries' resources by misleading desperate to help populace to depend on their help through neo-patrimonial, patron-client, clientelism, and principal-agent theories. These reasons may not apply to all countries, but help to understand why AID is working in countries such as Botswana but not others like Malawi. The High household consumption tendencies in Malawi as illustrated in Figure 6.31 above might explain misappropriation or misuse of the resources by leaders. Furthermore, such behavior of leaders appears to fuel most of the conflicts in the region. Hence, good governance from the executive branch could enhance cooperation among the ethnic, social groups and promote policies that will deliver outcomes for all people. That is demonstrated in Figure 6.20 above whereby Botswana citizens overwhelmingly support policy implementations of their leaders. Therefore, to some extent, Englebert (2000) is right that the capacity of Sub-Saharan countries to develop economically, socially, and politically is a function of the degree of legitimacy and similarity with pre-colonial institutions. What is needed to maximize foreign aid? The next sub-section will explore more on the responsibilities of leaders and individuals.

6.4.4.3 Leaders and citizens' responsibilities (FER), and economic growth

Figure 6.33 above highlights the vulnerability of Malawi citizens to people in power buying their votes with handouts. However, the extent of the poor living conditions

could be due to ethnic group differences that affect some forms of behavior regarding solutions to poor economic conditions in Malawi (Cox et al., 1991, p. 839) see also subsection 6.3.3 above. The failure of the leaders in Malawi to reduce poverty despite support from donor community confirms the views of people as shown in Tables 6.5, 6.6 and 6.7 above. By way of contrast, Figure 6.36 below shows FER in countries such as Ghana, Rwanda, South Africa, and Zimbabwe collected from World Values Surveys from 2010 to 2014. It appears that 72% of the participants in Rwanda mentioned that FER is vital in let the children learn at home. It also shows that Rwanda has the highest GDP average growth rates compared to the other African countries as indicated in Figure 6.37 below. Figures 6.36 below indicates that Rwanda has the most responsible citizens.

Figure 6.36: Responsibility attitude essential for economic growth

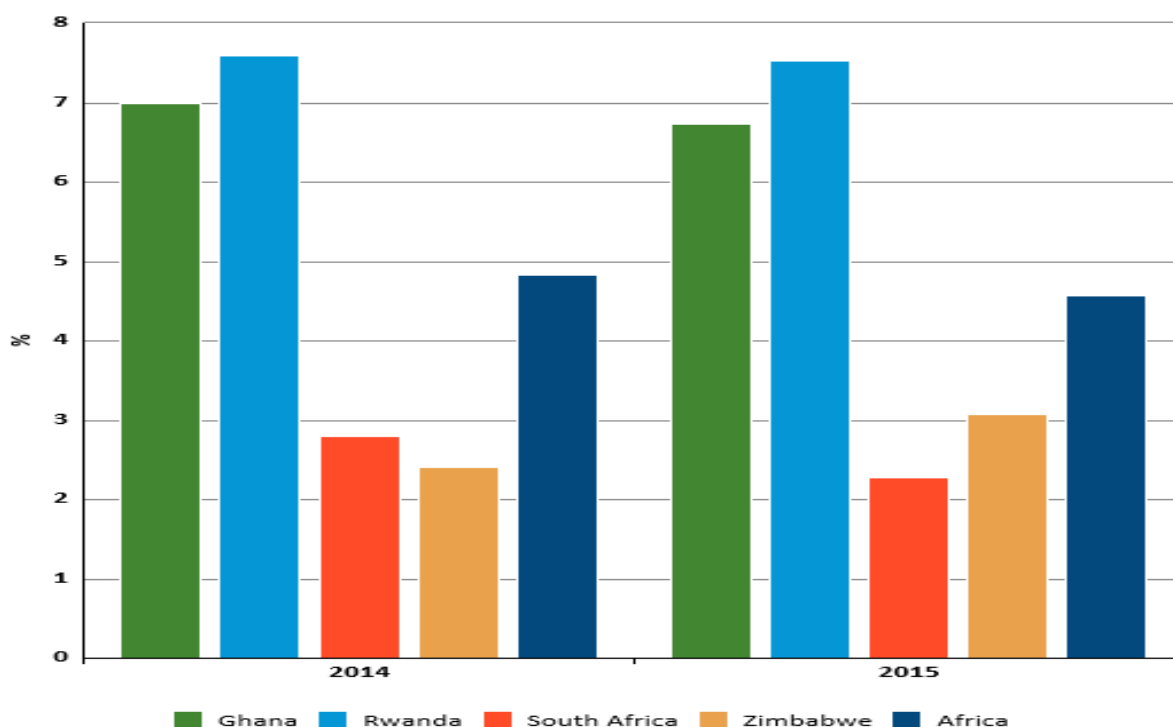


Notes. FER attitude is captured from WVS from 2011 to 2014.

While Figure 6.37 below shows Rwanda has the highest annual GDP per capita growth. The annual average growth in Africa is about 5%, Rwanda 8%, Ghana 7%, South Africa 3%, and Zimbabwe 3%. The responsibility of people in Rwanda is also indicated in the responsibilities of the leadership in steering the country to economic development. That is very different from what is happening to most of the other countries such as South Africa and Zimbabwe. Therefore, social cultural and political conditions contribute to countries' self-reliant attitude or dependent syndrome as illustrated by Botswana and Malawi above. Therefore, excluding the characteristics described above

in the production functions does not explain the real income disparities in the countries. These characteristics, say for example of dependency orientation in Malawi, lead to high household consumptions confirming the significant reduction of GDPPC by AID in chapter 5.

Figure 6.37: GDPPCG annual growths in four countries



Notes. Rwanda is another shining example for economic growth in SSC.

The observations in the model for six developing countries in Table 6.1 above indicates that FER significantly enhances economic growth in the countries. Hence, it is desired to admonish people in various developing countries to embrace the responsible attitude for stimulating economic growth in the countries. Having explained possible reasons why different outcomes of Aid in Botswana and Malawi, next sub-section will discuss security (SEC) and economic growth.

6.4.5 Security and economic growth in Malawi and Botswana

Generally, the unsustainable economic development in most of the SSC has been attributed to the prevalence of civil wars in the region. For instance, Guillaumont et al. (1999) state that political instability in SSC between 1970 and 1990 explained the limited economic growth in the countries. According to Klosek (2018), civil wars are likely to take place when there are high levels of valuable deposits of natural resources. Income gained through illegitimate sales of the natural resources say for example by the rebels is inappropriately directed for buying more firearms to gain superiority over others for more control of natural rich territories at the expense of the loss of innocent lives in the controlled territories by the rebels (see for example (Collier and Hoeffler, 2004).

Unquestionably, the loss of lives and prolonged civil conflicts in some of the developing countries constrain the effectiveness of institutions or the capacity building of the countries in providing excellent public services to their citizens (Reno, 1999). Ironically, the cause of conflicts either by internal or external sources rest on the wisdom and intelligence of elected officials mirrored in legislation to effectively counter the conflicts (Aristotle, 2009/330 BC). Wisdom and intelligence relate to higher or lower thinking ability whereby higher ability according to Rindermann, (2013) improves current environments such as societies, institutions, and quality of peoples' lives regarding health and real income per capita.

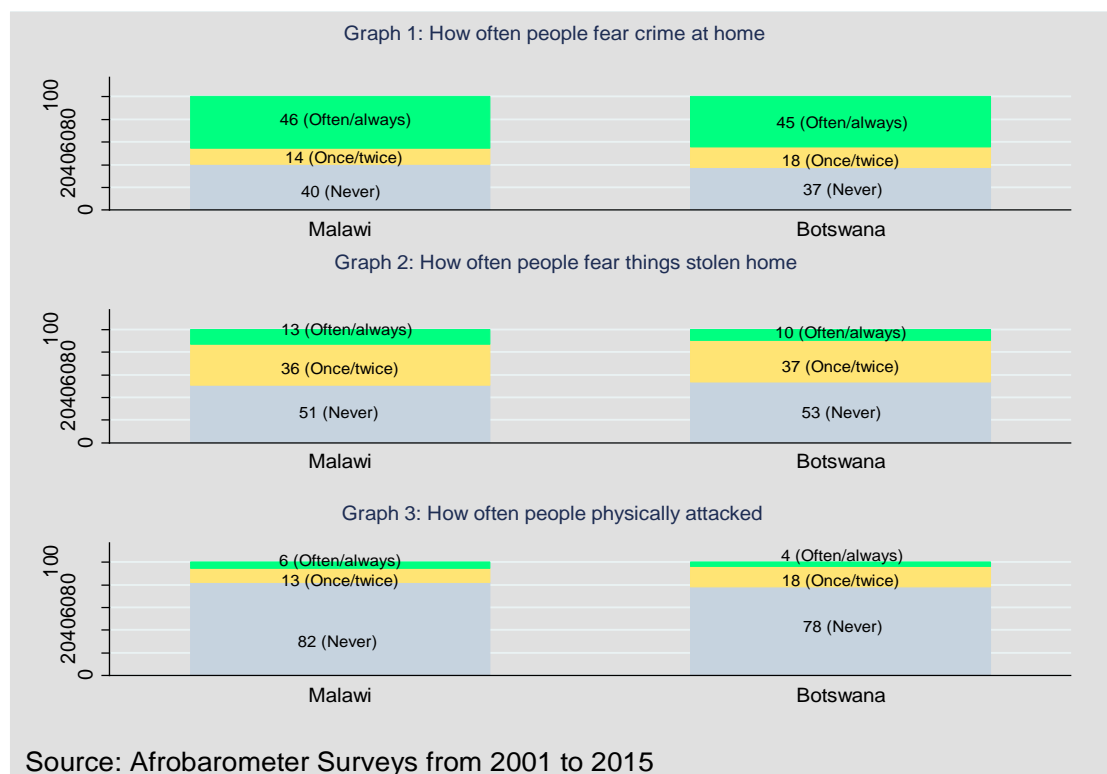
Even though, conflicts or civil wars negatively affect economic growth in SSC region as discussed above; most of the countries adopted in this study, have not had conflicts or civil wars for some time. Nevertheless, the definition of security in Table 3.2 in chapter 3 does include the possibility of conflicts or wars in the region. Table 6.1 summarizes the findings in chapter 5. The findings show that security (SEC) significantly enhances GDPPC in OLS1SSC model and SlowOLS1SSC model, while in FastOLS1SSC model insignificantly enhances GDPPCG. However, further investigation of data shows that SEC was inversely coded 0 to 4, where 0 denoted no security fear, conflicts, or robberies while anything above 0 denoted presence of fear and other things. Hence, the results instead suggest that SEC significantly reduces economic growth in OLS1SSC and SlowOLS1SSC models, while in FastOLS1SSC model insignificantly reduces economic growth. Therefore, further analysis in this chapter is performed in Botswana and Malawi as typical cases for analysis to explain why differences in SEC impact on GDPPCG in SlowOLS1SSC and FastOLS1SSC models.

Figure 6.38 below compares participants' views from three different questions concerning security (SEC) in both countries. Graph 1 shows 46% of people in Malawi feared crime at home comparing to 45% in Botswana. Similarly, about 13% people in graph 2 feared something stolen home while in Botswana only 10% feared such crime. Also, graph 3 indicates 6% feared being physically attacked at home in Malawi and Botswana only 4%. Generally, graphs from 1 to 3 seem to indicate that most people did not fear something stolen home or being physically attacked. Nonetheless, Figure 38 seems to suggest that Malawi participants feared crime at home more than Botswana participants. Chiefly, there is a significant fear of participants in both countries. Hence, the SEC of their lives and property need improvement. However, exploring further the fear of crime at home, it shows that in both countries the degree of fear seems to increase with time as indicated in Figure 6.39 below.

On the other hand, Figure 6.40 below reveals that most of the participants who never feared crimes were not employed. It seems to suggest that people who were working whether part time or full time had property and were afraid of being robbed of

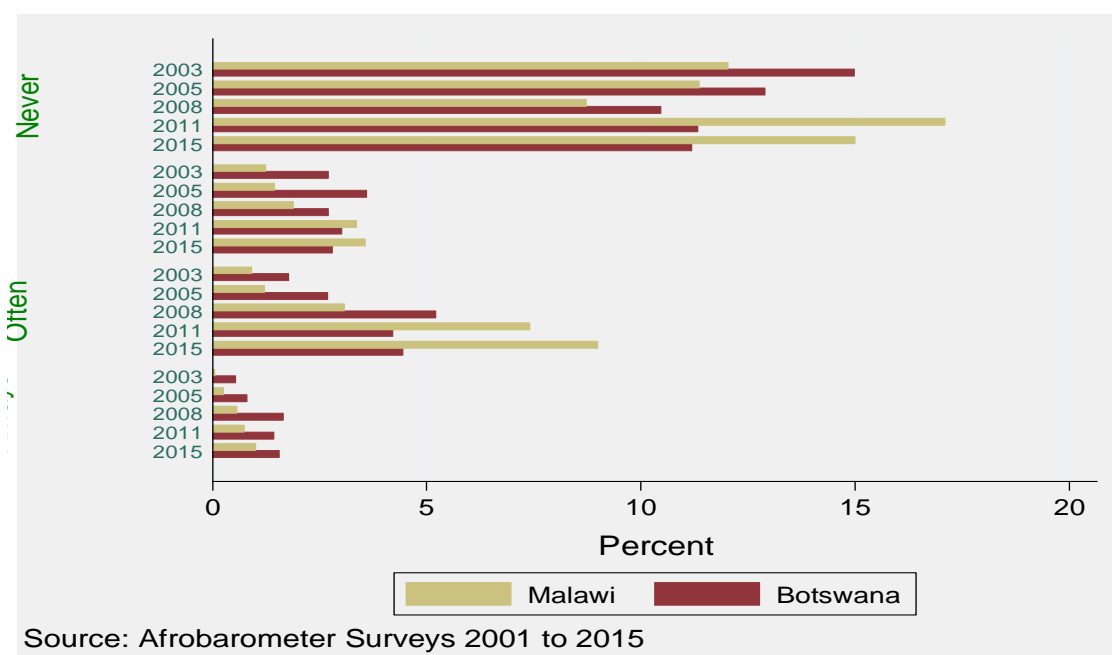
that property. The observations in Figure 6.38 seems to agree with the findings in Table 6.1 above whereby SEC SlowOLS1SSC (Malawi) reduces GDPPCG significantly, while in FastOLS1SSC (Botswana) insignificantly reduces GDPPC. Furthermore, Figure 6.39 below indicates that participants in Malawi who never feared crime increased with time while in Botswana decreased with time. On the other hand, participants who twice or often feared crime in both Malawi and Botswana increased over time. Moreover, participants who always feared crime at home increased with time in both countries, but, there was a much higher percentage in Botswana than Malawi.

Figure 6.38: SEC concerns in Malawi and Botswana



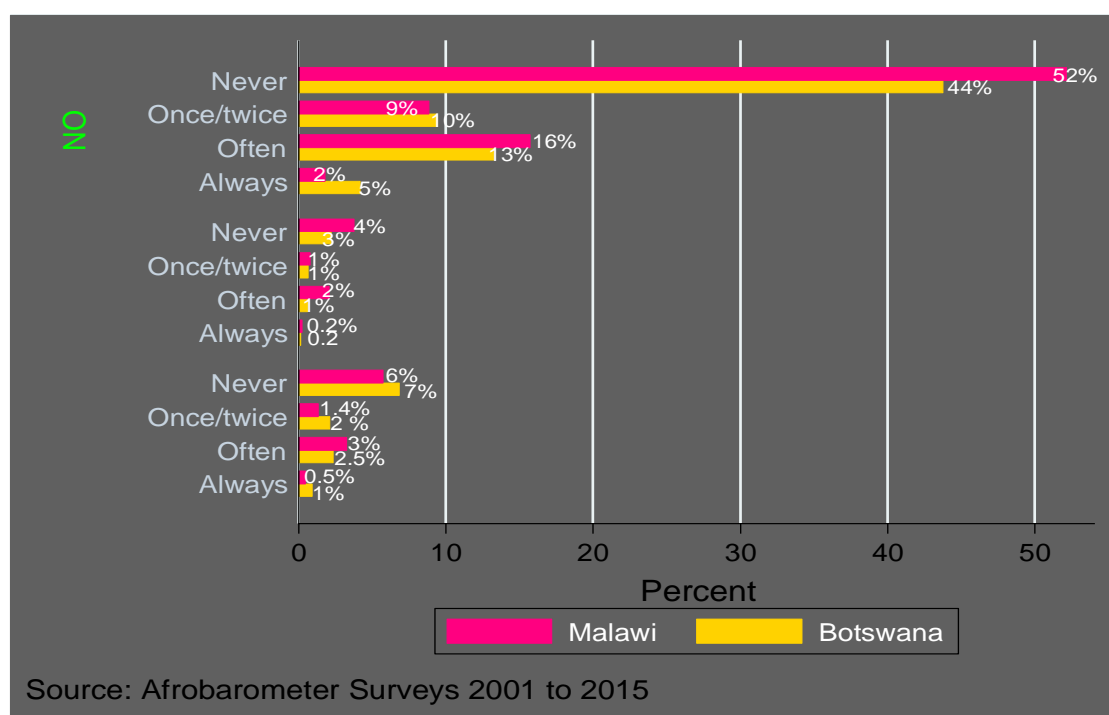
Notes. Graphs 1 to 3 show the fear of crimes in homes, something is stolen home, and people physically attacked respectively.

Figure 6.39: Fear of crime at home over time



Notes. Fear of crime over time in Malawi and Botswana

Figure 6.40: SEC concerns versus employment status

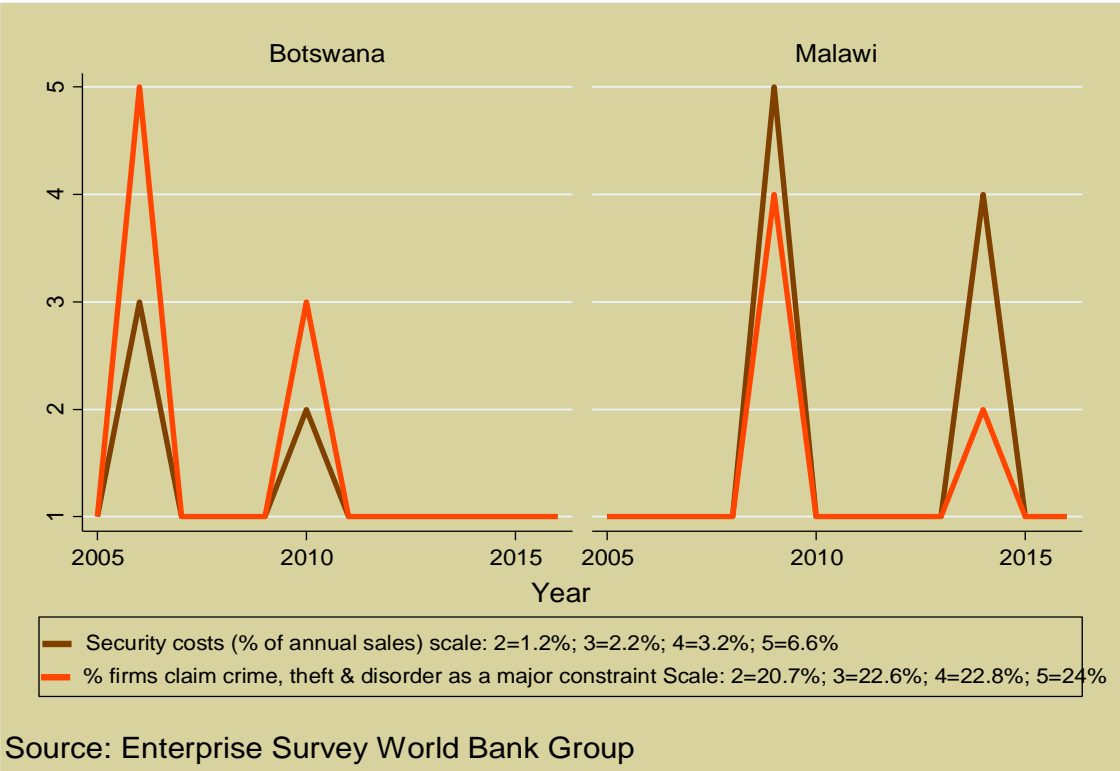


Notes. The participants not employed felt more SEC than the employed.

This observation seems to verify earlier findings in Figure 5.9 in chapter 5 whereby SEC concerns were increasing with increasing level of economic development in OLS1SSC model. The observations made in Figures 6.38, 6.39, and 6.40 above raise

more questions about how SEC impacts economic growth in Malawi and Botswana. There could be different ways of explaining this, but in this study, the focus is on how the two countries perform in investment index. Investment can be either foreign or local, and high SEC costs can subdue this investment. According to Ndulu et al. (2007) respect of property rights happens when there is judicial effectiveness and the rule of law, and it invites FDI into the country. Hence, the comparison is made between Malawi and Botswana in SEC costs out of firms' annual sales and percentage of firms who claim lack of SEC limits investment as illustrated in Figure 6.41 below. SEC costs in Malawi as a percentage of annual sales are higher than in Botswana. Malawi SEC costs range from 3.2% to 6.6%. While in Botswana SEC costs are much lower than Malawi from 1.2% to 2.2% of annual sales. Contrary, firms who claim that lack of SEC hinders investment are higher in Botswana than Malawi.

Figure 6.41: Security costs in Botswana and Malawi



Notes. Security costs in Botswana and Malawi range from 1.2% to 6.6%. The claim by firms that lack of limits investment ranges from 20.7% to 24%

For example, about 24% of firms in 2005 claimed lack of SEC reduces investment in Botswana, while in 2010 about 22.6% made the same claim. On the other hand, in Malawi, in 2010 about 22.8% of firms observed investment was hindered by high costs of SEC, while in 2015 only 20.7 made the same claims. Generally, these findings suggest that SEC is very needful in SSC to enhance GDPPC. For instance, in Table 6.1 above, OLS1SSC model shows that the SEC is the most effective and relevant

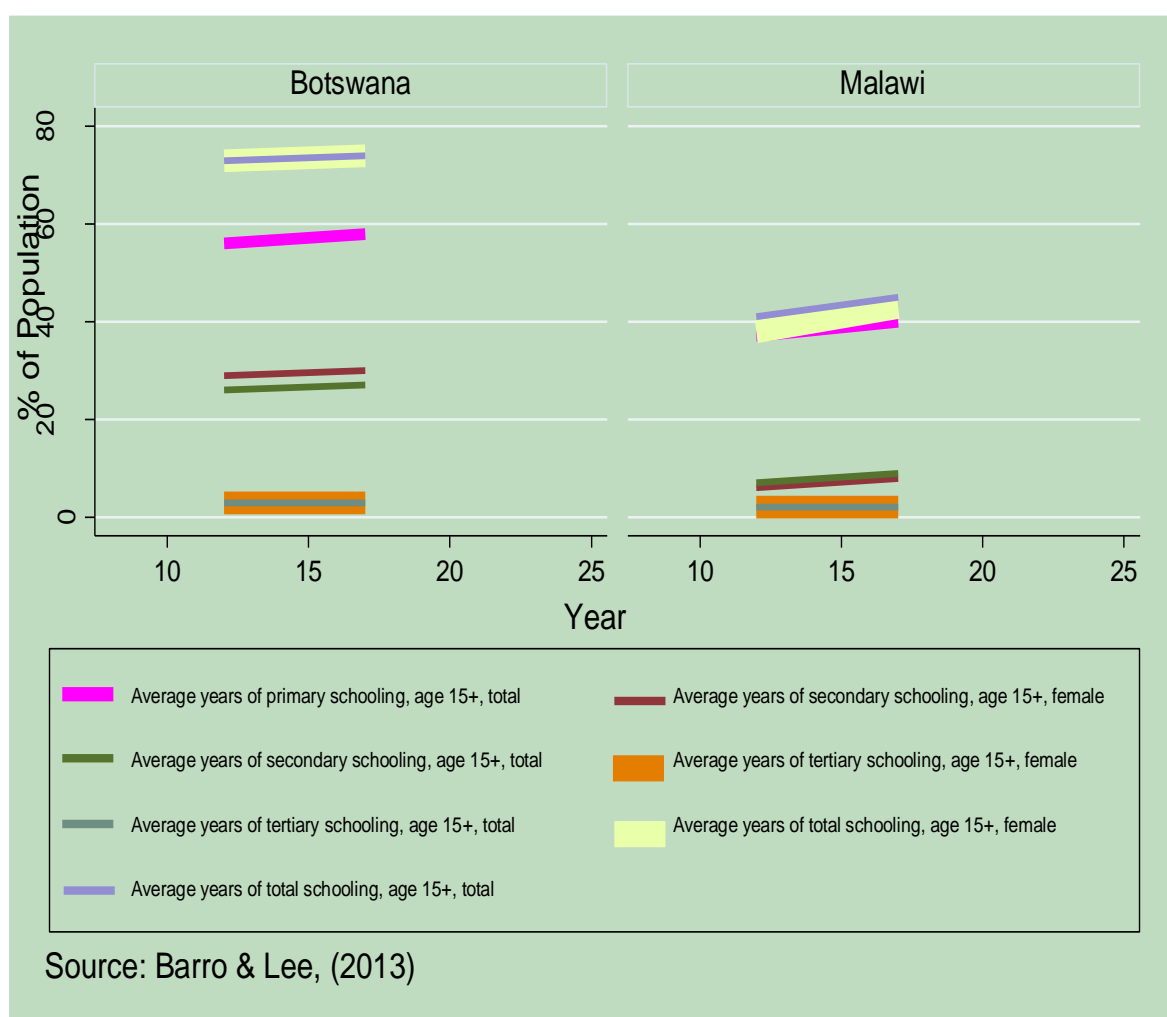
than other 16 variables. SEC is four times more effective than GCI in the countries. Also, in the same table, a model for slow grow countries SEC is four times more than HCT which is ranked 2nd to SEC in Table 6.1 above. Therefore, countries in the region need to take note of the SEC and improve to attract investments from outside the countries and inside the countries.

6.4.6 Human capital versus economic growth in Botswana and Malawi

Human capital (TED: tertiary education) and capital stock (RKN) in Table 4.9 in chapter 4 lose their significant impact on GDPPC when cultural variables are excluded in OLS2 (developed) model. In contrast, TED and RKN in OLS3 (developing) model maintain significance impact though they both lose effect size when cultural variables are not included in the model. Further exploration in Table 5.8 in chapter 5 shows that the performance of human capital (HCT: index years of schooling) changes when cultural variables are controlled. For instance, the effect size in a model with cultural variables in column (2) is about two times more effective than column without cultural variables in column (3). Of course, quality education impacts the productivity of human capital, but also human capital productivity depends on the socio-political structures in the countries. Therefore, this sub-section is going to explore why human capital (HCT, TER) seem to impact economic growth differently in the models presented in Table 6.1 above, mainly focussing on Botswana and Malawi. These two countries represent FastOLS1SSC and SlowOLS1SSC models in Table 6.1 above whereby HCT significantly contributes to GDPPCG in SlowOLS1SSC and insignificantly in the FastOLS1SSC model. The prediction in the models may fail to capture some attributes for HCT productivity between countries, hence, the main aim for this sub-section to explore HCT/TED variable.

Human capital (HCT/TED) is associated with the absorptive and productive capacity of the countries that propels the flow of goods and services in countries (Mankiw et al., 1992; Nelson and Phelps, 1966). Figure 6.42 below shows 50% to 60% of Botswana population over 15 years old completed primary education compared to 40% Malawi population. The figure also shows 20% to 30% population in Botswana completed secondary education while in Malawi about 10% of the population have secondary education. The percentage of the female population with secondary education is higher than the percentage for both sexes in Botswana. On the other hand, the percentage for both sexes in Malawi is slightly higher than the percentage of the female population. Furthermore, the figure shows that in both countries population with tertiary education is less than 10% of both female and total categories. All in all, Botswana seems to have higher levels of human capital than Malawi.

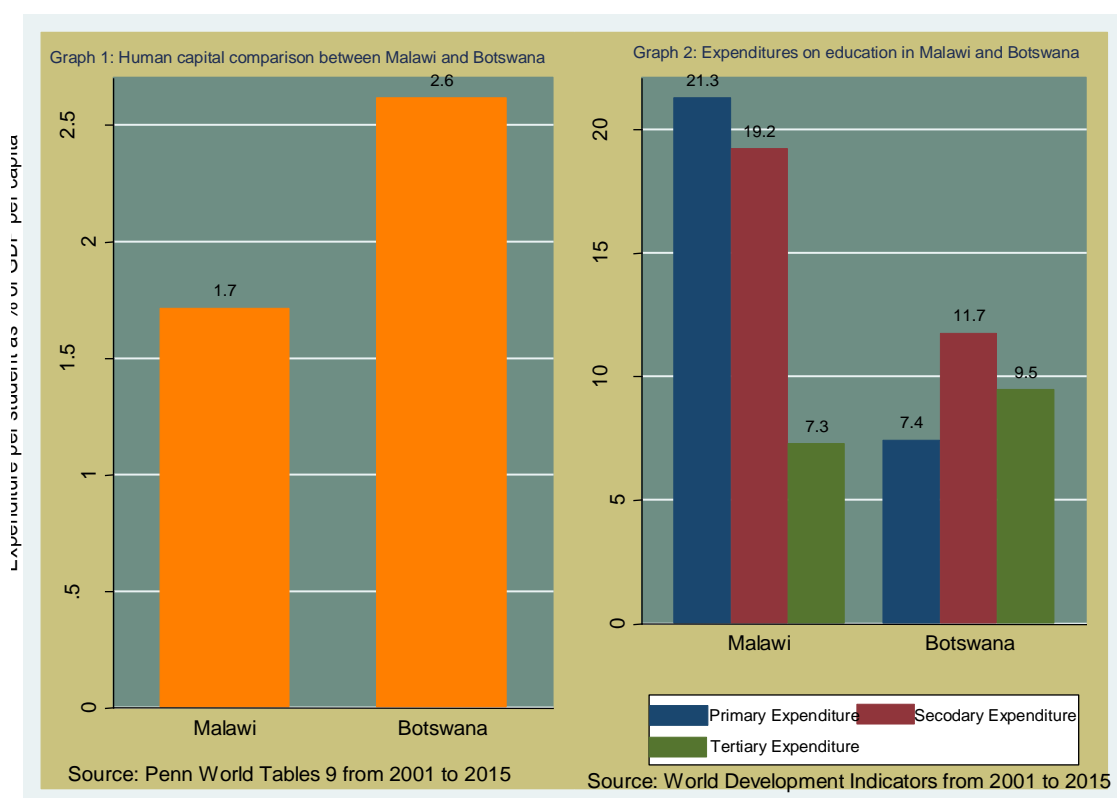
Figure 6.42: Human capital levels in Botswana and Malawi



Notes. Botswana has higher levels of human capital than Malawi

However, HCT in SlowOLS1SSC represented by Malawi significantly contributes to economic growth while insignificantly enhances economic growth in FastOLS1SSC model represented by Botswana. Why? Should it be said that quality of education in Botswana is inferior to Malawi? Figure 6.43 below illustrates differences in the quantity of human capital and quality by education expenditures in Malawi and Botswana. Graph 1 in Figure 6.43 below illustrates that Botswana has higher levels of education than Malawi, while graph 2 in the same figure shows Malawi has more expenditure in secondary and primary education than Botswana, while Botswana has more expenditure in tertiary education. The higher expenditure on education in Malawi could be because Malawi has a very high population of about 17.3 million people of which about 45% are under 14 years as presented in Table 6.2 above. Nonetheless, the public expenditure on education in Botswana is 9.49% of GDP while in Malawi 7.70% of GDP is spent on education. Hence, the higher population in Malawi strains the limited resources more than Botswana with a population of under three million.

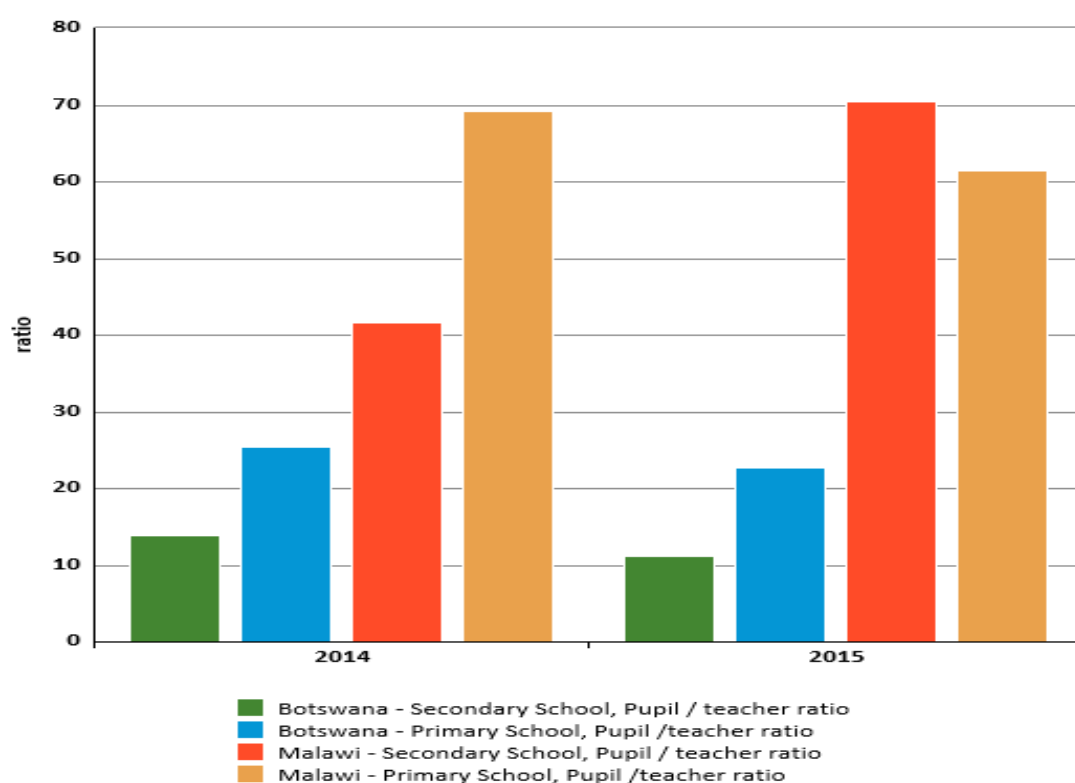
Figure 6.43: Human capital vs. education expenditure in Malawi and Botswana



Note. Graph 1 highlights human capital levels in Malawi and Botswana. Graph 2 shows expenditure on each level of education in Malawi and Botswana.

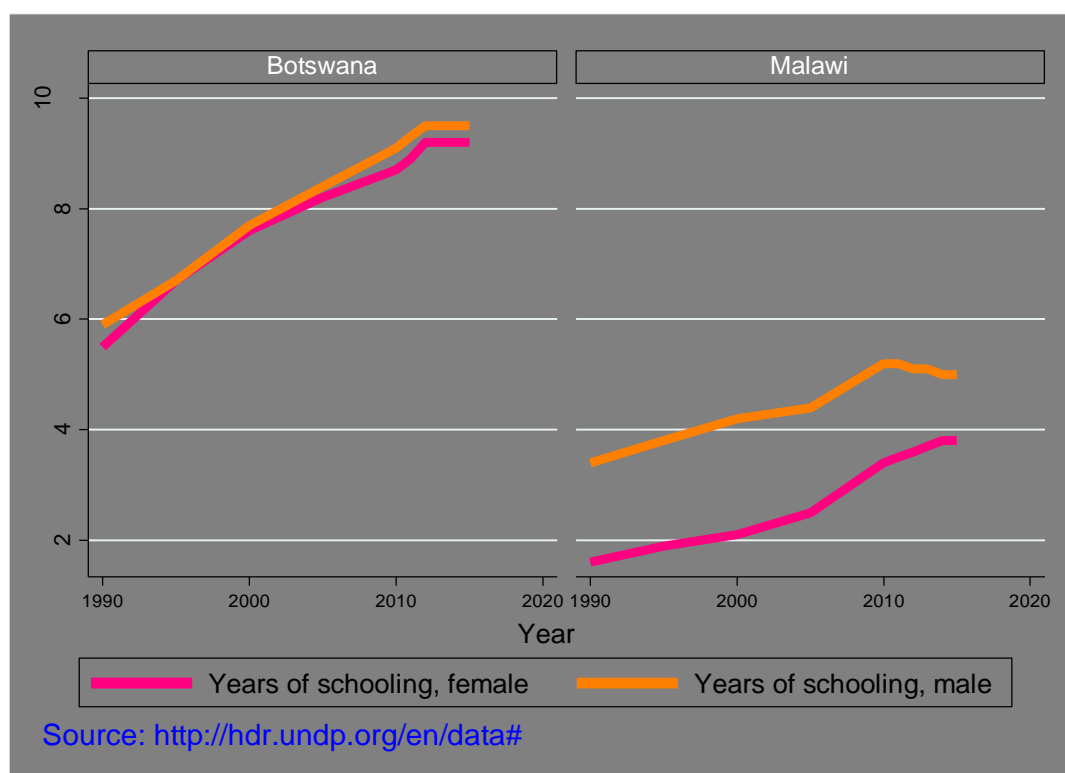
For instance, Figure 6.44 below shows that Malawi has a higher number of pupils per teacher in both primary and secondary education than Botswana. In the year 2014, 68 pupils per teacher in Malawi versus 25 pupils per teacher in Botswana. In the same year in secondary education, Malawi had 42 students per teacher while Botswana about 14 students per teacher. In 2015, in primary Malawi had 62 pupils per teacher while Botswana 23 pupils per teacher. Also, in secondary education, Malawi's secondary ratio increased to 70 students per teacher while Botswana reduced the number to 11 students per teacher. It appears to suggest that Botswana's education has more quality value than Malawi because pupils have more attention from teachers in their education than the pupils in Malawi. Even though Figure 6.43 above suggests Malawi spends more in primary and secondary education, the pupil and teacher ratio numbers in Malawi seem to suggest education funding is not enough. These observations cast doubt on the prediction of SlowOLS1SSC model (Malawi) that HCT significantly enhances economic growth in SlowOLS1SSC model than in FastOLS1SSC represented by Botswana.

Figure 6.44: Pupil and teacher ratios in Botswana and Malawi



Therefore, education quality to explain productivity seems debatable in the models presented in Table 6.1 above. Could inequality in education due to gender explain this dilemma? Figure 6.45 below indicates that the disparity in Malawi between men and women is enormous, regardless of efforts made to reduce the disparities in the country. While Botswana seems to have managed to reduce education disparity between women and men, however, other forms of disparity due to gender such as income disparity derail human capability in Botswana.

Figure 6.45: Education disparity in Botswana and Malawi



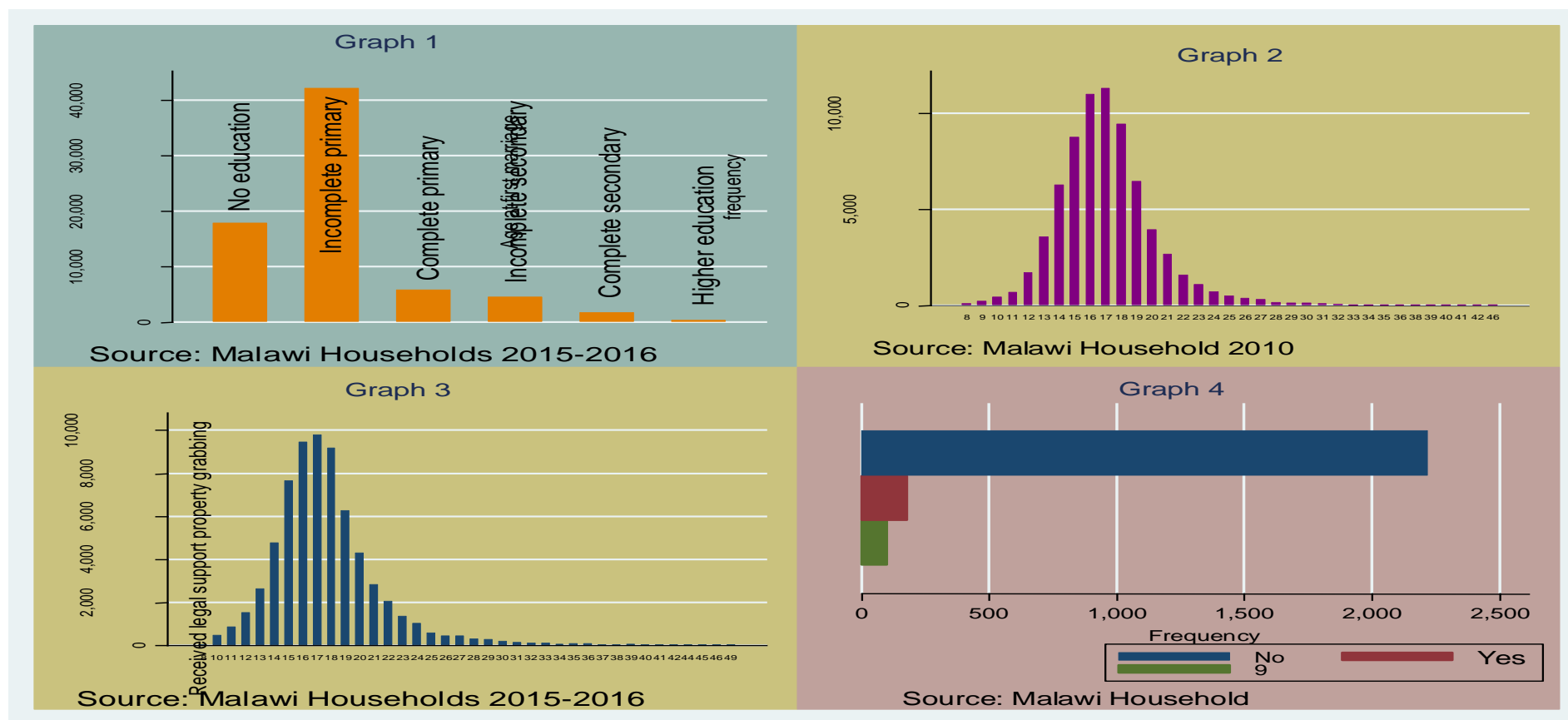
Notes. Education disparity in Malawi between women and men is worrisome.

Further exploration indicates that both countries have introduced some programmes to fight discrimination against women. For example, in 2015 Malawi government criminalized child marriage under the Marriage, Divorce and Family Relations Act (DFRA) (Marriage Act) of 2015, so that marriage with someone under the age of 18 is illegal (The Government of Malawi, 2015). The Malawi government initiated this because it became aware that early marriage negatively affected girls' education. However, poverty is still the key contributor to early marriages in Malawi, noted by (World Bank, 2011) which claimed that about 53% of poor women gave birth under the age of 18 years. The education parity between males and females in Malawi as illustrated in Figure 6.45 above which confirms that the girls' education is hampered by early pregnancies and marriages of girls as demonstrated in graphs 1 and 2 in Figure 6.46 below. Figure 6.46 shows the Malawi household surveys conducted in the year 2010 and 2015 demonstrate that early pregnancies and marriages of girls reduce their educational attainment. That is despite Sections 20 and 41 of the Constitution of Malawi which uphold the principle of equal rights for men and women and prohibit any discrimination based on gender or marital status (OECD-MW, 2016). Graphs 2 and 3 in Figure 6.43 indicate that children get married at age 10. It happens in mainly rural areas whereby parents alleviate poverty by getting cows or dowry from other people in an

exchange with their daughters. According to the present laws of Malawi, it is illegal to marry a child under the age of 18. Nonetheless, children are given into marriage with a blessing from the parents who are the primary beneficiaries. These practices have to change to stop discriminating against the girls in Malawi. Botswana too has got its issues though both countries are controlled to some extent by their traditions. For example, Section 15 of the Constitution of Botswana provides the right to non-discrimination on the grounds of sex (Section, 15). The Marriage Act, in Botswana, was amended in 2001, and the legal age of marriage is 18 for both sexes, conditional on parental consent. However, the legal age without the consent of the parents is 21 (OECD-BW, 2016).

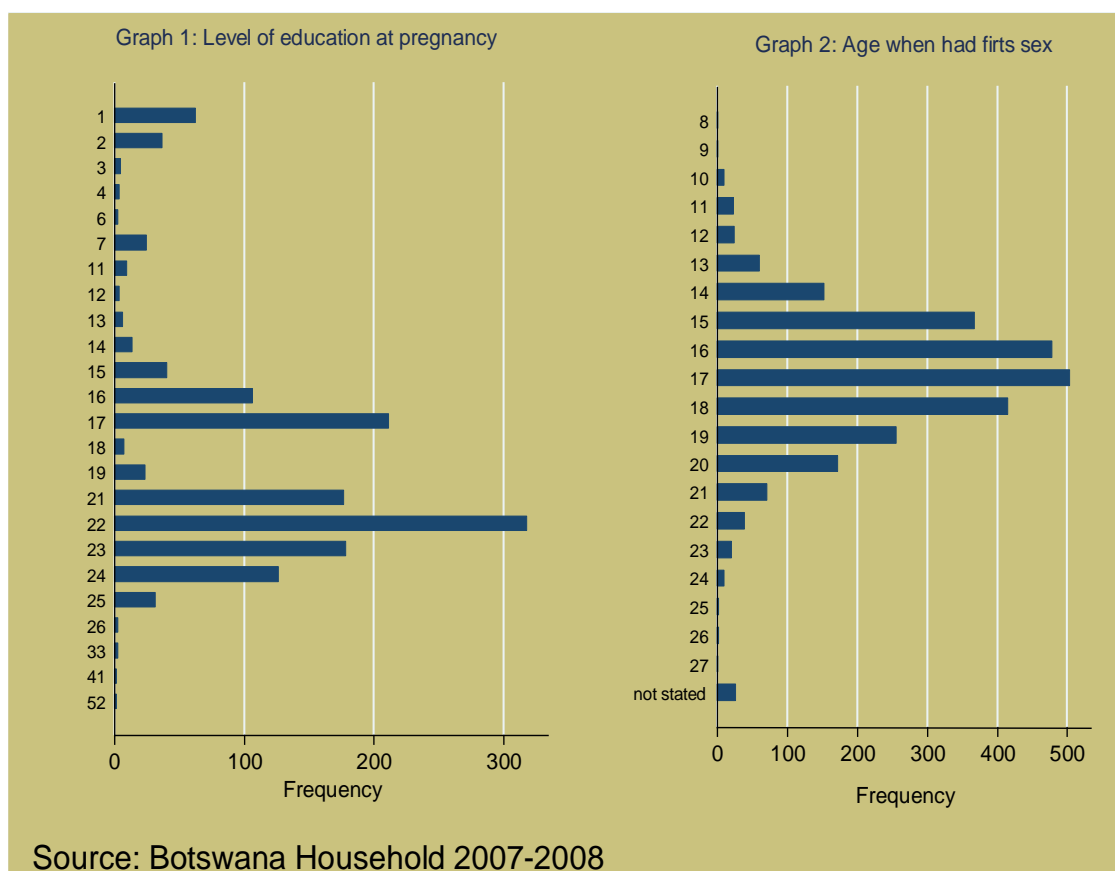
Additionally, United Nations reported that about 5.3% of the girls of ages 15 to 19 in Botswana are either married, divorced, or widowed (DESA, 2013). The right of girls not to be discrimination against, as stated in the constitution of Botswana section 15 seems not to be observed due to customary laws. Graph 1 in Figure 6.47 below indicates that most girls become pregnant only after obtaining at least secondary education. However, girls are prone to sexual activity possibly due to cultural aspects prevailing in the society of Botswana. Even though Botswana regards its constitution as the supreme law, many feel it is merely theoretical because in practice custom law or religious law is applied (Botswana Council of Non-Governmental Organisations, 2009).

Figure 6.46: Discrimination against women causes low education attainments



Notes. Graphs 1, 2 and 3 show that most of the women get married at very young ages with no education. Graph 4 illustrates the vulnerability of women for property grabbing mainly by male relations.

Figure 6.47: Good education levels for the girls in Botswana



Notes. Graph 2 shows very young girls involved in sexual activity.

All in all, the presentations in Figures 6.42 to 6.47 above demonstrate that education productivity differs among countries. Some concerns such as education levels, expenditures, and pupil-teacher ratios have been explored above, but the finding in SlowOLS1SSC is contrary to expectations in literature whereby higher levels of education are associated with high productivity through absorption of internal and external technology (Mankiw et al., 1992; Nelson and Phelps, 1966). However, inequality among people reduces human capability in the countries. Hence countries, notably SSC, need to focus on the reduction of discrimination due to gender or economic status so that people would thereby be able to contribute to the countries equally. Hence, the productivity of human capital could also be due to prevailing cultural conditions in the countries as noted in Tables 4.9 and 5.9 whereby the control of cultural variables reduces the effect size of other variables.

6.5 DISCUSSION OF THE FINDINGS

6.5.1 Governance proxied as ROL is critical for economic growth in SSC

Figure 6.13 above shows that Botswana performs well in all the proxies of governance included in this figure. Generally, it is accepted in the literature that effective leadership and sound institutions are connected to good governance that is considered the engine of economic growth in the countries. However, there are inconsistencies in the literature on the right proxies for governance. Hence, this study utilized Afrobarometer surveys who devised questionnaires for people to evaluate their leaders regarding how they have performed in implementing policies based on governance. The attributes in Figure 6.13 were objectively collected whereby Botswana outperform Malawi in all proxies. Hence, the further probe is done by comparing objectively collected measures and subjectively collected from surveys whereby the distinction between *de jure* and *de facto* institutions can be identified (Woodruff, 2006).

The views of people are reported in Table 6.6 and Figures from 6.6 to 6.9 regarding how leaders managed the economy (GEF) in Botswana and Malawi. The findings show that people in Botswana approve their leaders for managing the economy well in all the six surveys covering the period from 2002 to 2018. On the other hand, in Malawi people in four surveys evaluated their leaders performed very badly in managing the economy. Unexpectedly, in two surveys leaders in Malawi were favorably appraised. Another governance indicator of (GEF) rated was about how the leaders performed in improving the living standards of the poor. In this indicator, only four surveys conducted and the findings in Botswana show that people rated their leaders favorably. In Malawi, two surveys rated well the leaders while the other two surveys overwhelmingly disapproved the performance of the leaders.

Furthermore, Table 6.6 and Figures 6.10 to 6.12 present the governance indicator of corruption control (COC). People in Botswana considered their leaders were doing remarkably well in all the seven surveys covering the period from 1999 to 2018. In contrast, most people in Malawi thought leaders were not doing enough to control corruption in the country. However, as noted in the previous finding, two surveys favorably commended the leaders. Also, in Table 6.7 and Figures 14 to 15 people in both Malawi and Botswana considered free to say whatever they want which implies that both countries appear to have democratic institutions. However, most people in Malawi are of the view that government should be more accountable to its citizens than the counterparts in Botswana.

The findings above suggest that governance in Botswana is in line with the expectations of people as shown in Figure 6.17. In contrast, in Malawi, people think leaders are not accountable. Hence, their overall performance of the direction of the country is rated in the wrong direction as illustrated in Figure 6.18. Despite Botswana in the fast growth suffering negative impact of GEF, the government effectiveness is generally very impressive. On the other hand, in Malawi though has significant GEF impact on economic growth, management of the economy and control of corruption seems to be poor. Hence, ethical leadership in Malawi could enhance economic growth in the country. For example, the two surveys Malawi leaders were rated well was during the period that Bingu wa Mutharika was the president of Malawi from 2004 to 2012. He was considered a strong leader regarding control of corruption and implementation of policies which improved the lives of people.

6.5.2 Social capital, civic capital derail economic growth in SSC

The prediction in Table 6.1 indicates that social capital (SOC) significantly enhance economic growth in OLS1SSC, OLS3 (developing), and SlowOLS1SSC models. While in FastOLS1SSC model insignificantly contributes to economic growth. The observations in Table 6.8 and Figures from 6.20 to 6.23 indicate that most of the people in Botswana trust the president almost in all the surveys and the trust in the president increases with time see Figure 6.22. On the other hand, the trust of the president in Malawi depends on the performance of the president as indicated in Figures 6.21 and 6.23. However, Figure 6.26 shows that social capital generated from several variables as indicated in Table 3.5 are higher in Malawi than Botswana. In this case, the prediction of the models above might be right. However, it seems to suggest that in Malawi trust can be in high levels as networks among people of different social groups other than the leaders and citizens.

Furthermore, Figure 6.26 seems to suggest that higher levels of SOC in Malawi is associated with low levels of public capital (CPR) while in Botswana low levels of SOC is associated with high levels of civic capital. It seems to suggest that there is a form of social capital which enhances economic growth which seems to be the case in Botswana. For example, CPR significantly reduces economic growth in SlowOLS1SSC model while in FastOLS1SSC model insignificantly reduces growth. All in all, trust in the leaders in Malawi relies on their ability to manage the economy and improving the living standards of people. In contrast Figure 6.25 CPR was lowest in Malawi when leaders perform well and tend to increase when leaders fail to perform.

The leaders with transformational and service characteristics are desirable in most of the developing countries to enhance sustainable economic growth in the countries. These type of leaders could put the interests and needs of their citizens first that could, in turn, have effect in the public delivery systems for the benefit of all people in respective countries (Van Dierendonck et al., 2014). Further examination of cultural variables in sub-section 6.4.2 illustrates the point of understanding how individual variables, circumstances, institutions, and environment interact with each other in specific national settings to produce measured effects on economic growth. This seems to also point to how weak institutions in Malawi impact economic development negatively due to low scores in Figure 6.13 above. As a result, corruption seems to grip the nation due to high inequalities among the Malawi citizens. This seems to agree with Borooah (2016) who connected corruption to inequality among people in India. Therefore, the performance differences between Malawi and Botswana can also be explained by these differences in the quality of institutions in the countries. Botswana sets an excellent example from which other countries in the same region can learn and purposefully formulate institutions that deliver quality services to people in all sectors. The upshot is that SOC is captured within the institution citizens live, and in this vein lower levels of SOC in Malawi negatively impacts economic growth (see more details in chapter 2).

6.5.3 Competition good for economic growth in Africa

The findings in Table 6.1 above show that GCI significantly contribute to GDPPC in OLS3(developing) and OLS1SSC models. The same table shows GCI insignificantly enhances GDPPCG in both SlowOLS1SSC and FastOLS1SSC models. However, comparison regarding effect size of GCI on GDPPC, fast growth SSC have a higher impact than slow growth countries. Further analysis appears to suggest that fast growth countries have more competitive environment than slow growth countries as illustrated in Figure 6.13 above. However, the factors used for comparison of competitiveness between Botswana and Malawi may not address all the conditions for providing a competitive environment in the countries. However, may highlight the potential weaknesses in the present application of competitive environment mainly in the slow-growing economy countries. For instance, the competitiveness of countries could be due to the differences in gross capital formation (GCF). GCF could illustrate capability differences in production between Botswana and Malawi as observed by (Cohen and Uphoff, 1980, p. 216). Figure 6.29 above illustrates the utility capability differences between Botswana and Malawi whereby GCF showed as a percentage of GDP is higher

in Botswana than Malawi. In the same vein, the figure also indicates that Gross Fixed Capital Formation (GFCF) is higher in Botswana than Malawi. GFCF is the net saved after subtracting consumption from GCF. The net saving increases capital stock levels (RKN) when invested in the economy, hence increasing the capacity to produce. Also, Figure 6.29 above reveals that the Gross Fixed Capital Formation in Private Sector (GFCFPS) is higher in Malawi than Botswana. Why? It seems to suggest that private sector in Malawi have a responsibility to utilize the resources they have to survive in the respective competitive businesses. Hence, developing the ability to manage resources responsibly seems desirable in Malawi. That is possible as indicated above that in the time responsible leaders are leading the country things change positively reducing income inequalities among people. Therefore, low developing countries such as Malawi need to learn from the successes of the countries like Botswana in the same region.

6.5.3 AID, Self-reliance, dependency and economic growth

Table 6.1 above indicates that AID significantly reduces in OLS1SSC and SlowOLS1SSC models. On the other hand, in FastOLS1SSC model AID insignificantly reduces economic growth. The findings suggest that countries such as Botswana have self-reliance and responsibility to utilize available resources to spur economic growth. In contrast, some countries like Malawi develop dependency syndrome whereby rely on others to bail them from challenges they can manage. Hence, AID has been increasing over time in Malawi, and yet economic growth is generally low comparing to Botswana. The observations in Figure 6.35 seems to indicate that Botswana utilized assistance to deal with their needs, while Malawi failed to utilize this assistance. Even though Botswana received less AID; it managed to reduce harsh poverty conditions more effectively than Malawi. Figure 6.34 illustrates some of the ways Malawi can capitalize to increase the capacity to produce and provide for its people. Hence, self-reliance, rather than AID, is the key to the economic development as observed in Botswana, but this is not the case in Malawi.

6.5.5 SEC essential for economic growth in SSC

Even though, conflicts or civil wars negatively affect economic growth in SSC region as discussed above; most of the countries adopted in this study, have not had conflicts or civil wars for some time. Nevertheless, the definition of security in Table 3.2 in chapter 3 does include the possibility of conflicts or wars in the region. Table 6.1 summarizes the findings in chapter 5. The findings show that security (SEC) significantly reduced GDPPC in OLS1SSC and SloOLS1SSC models, while in FastOLS1SSC model insignificantly enhances GDPPC. Figures 6.38 to 6.41 shows that citizens in Malawi are

more concerned with their properties for fear of being robbed than counterparts in Botswana. For example, about 24% of firms in 2005 claimed lack of SEC reduces investment in Botswana, while in 2010 about 22.6% made the same claim. On the other hand, in Malawi, in 2010 about 22.8% of firms observed investment was hindered by high costs of SEC, while in 2015 only 20.7% made the same claims. Generally, these findings suggest that SEC is very needful in SSC to enhance GDPPC. For instance, in Table 6.1 above, the model for 18 SSC shows that the SEC is the most effective and relevant than other 16 variables. SEC is four times more effective than GCI in the countries. Also, in the same table, a model for slow grow countries SEC is four times more than HCT which is ranked 2nd to SEC in Table 6.1 above. Therefore, countries in the region need to take note of the SEC and improve to attract investments from outside the countries and inside the countries.

6.4.6 Human capital versus economic growth in Botswana and Malawi

Human capital (HCT) in SlowOLS1SSC represented by Malawi significantly contributes to economic growth while insignificantly enhances economic growth in FastOLS1SSC model represented by Botswana. Figure 6.43 illustrates differences in the quantity of human capital and quality by education expenditures in Malawi and Botswana. Graph 1 in Figure 6.43 illustrates that Botswana has higher levels of education than Malawi, while graph 2 in the same figure shows Malawi has more expenditure in secondary and primary education than Botswana, while Botswana has more expenditure in tertiary education. The higher expenditure on education in Malawi could be because Malawi has a very high population of about 17.3 million people of which about 45% are under 14 years as presented in Table 6.2 above. Nonetheless, the public expenditure on education in Botswana is 9.49% of GDP while in Malawi 7.70% of GDP is spent on education. Hence, the higher population in Malawi strains the limited resources more than Botswana with a population of under three million.

Figure 6.44 also indicates that education in Botswana has more quality regarding the number of students in primary and secondary per teacher. However, Figure 6.46 seems to indicate the productivity of human capital can be lost due to inequality due to gender in both countries. Having said that the chapter also notes productivity of human capital can be contextual due to prevailing conditions that hinder or promote abilities of the individual. Therefore, developing countries need to formulate curricula in their education systems that promote independence and competitive attitudes that are noted as being vital for economic development in the developing countries. How can this higher thinking ability be achieved? One of the possible ways is embracing scientific

thinking in developing countries communities. The three pillars of scientific thinking are logic, empirical facts and systematic reasoning whereby people should base their decisions coupled with respect for others embroiled in scientific endeavors (Ceci and Wendy, 2009; Flynn, 2007). However, for scientific thinking to prevail in societies dominated by ideological orientations as precursors to civil conflicts, academic freedom should be protected to promote logic, empirical facts, and systematic reasons in the developing societies. For instance, Vrielink et al. (2011) incorporate three requirements for academic freedom namely: individual expressive rights where they can be able to study, teach, or research; institutional autonomy; and an obligation by government agencies to protect and respect academic freedom.

The SOC and CPR contribute to the formation of peoples' behaviors, attitudes, and values that reside in people with education or not. Therefore, the differences on how participants perceived and answered the questions in the surveys in Malawi and Botswana could explain their differences in economic performance. This assumption is based on the claim that social interaction impacts on social phenomena suggesting that knowledge is also created through experiences (Locke, 1961). It is similar to Saunders et al. (2012) who observed that social phenomena are an outcome from the perceptions and subsequent actions of social actors. Hence, the participants' answers to the questions relevant to the variable concepts given above give evidence to highlight differences in economic performance between Malawi and Botswana. Moreover, if participants' limitation to freedom as observed in Figure 6.9 above could be related to strong leadership in Botswana, then strong leadership is good for economic growth. For example, Singapore's current economic development status according to Tong, (1996) mainly depended on the quality of political leadership who formulated policies embedded in cooperation between the executive and its citizens that through their determination steered their country out of the mire of poverty to prosperity. This seems to suggest that democratic institutions remain fragile and incomplete if executive authority lacks the strong leadership to mobilize their citizens to be achievement oriented regarding delivery of their duties in respective positions.

CHAPTER 7: THESIS CONCLUSIONS AND IMPLICATIONS

7.1 INTRODUCTION

The thesis has investigated if cultural factors influence economic growth differences among countries. The intriguing question motivated it as to whether the gap between developed and developing countries is widening. Technically speaking, some countries which were regarded as underdeveloped three or four decades ago are now regarded as developed as articulated in the introduction of chapter 1. On the other hand, the Sub-Saharan region has failed to register convincing economic development (Seguino and Were, 2014:1). See chapter 1 for more information. Unconvincing performance in this region seems to persist despite the introduction of new international economic orders by international organizations such as IMF and World Bank (Brandt, 1980; South Commission, 1990). In this regard, the reality of poverty and inequality of billions of people in developing countries provides a challenge to the methods, theories, and policies used in dealing with the escalation of the gap of economic development between developed and developing countries. One of the ways indicated in literature of dealing with the situation is that after the devastating World War II, countries co-operated in instituting international bodies like World Bank, United Nations, International Monetary Fund and General Agreement on Tariffs and Trade primarily to reduce the gap between developed and underdeveloped countries (Dube, 1988; Morawetz, 1977; Thirlwall, 2011). It is more than a half a century since the end of Second World War, but the income disparities between developed and developing countries (notably SSC) seems to be widening as explained in chapter 1. Countries seem to grow at different rates and, whilst much is known about the various factors which influence this growth potential, there are indications that a broader range of factors may be at play and therefore developing nations, seeking to raise the future prospects for their citizens, may wish to consider the implications of this broader range of factors when designing their social and economic strategies. In particular, this thesis examined the impact that cultural variables may have on economic growth. The objectives of the thesis were met by employing four hypotheses on all variables in each category in chapters 4 and 5, as summarized below.

7.1.1 How the objectives of the thesis were addressed

The first objective was to identify the causes of economic growth differences primarily between developed and developing countries. The second

was to identify cultural values that hinder economic growth in developing countries particularly countries in the Sub-Saharan region. The third was to explore the cultural values that promote economic growth in the region. These objectives were addressed by engaging variables in all the three categories namely: traditional, institutional, and cultural and were operationalized in chapters 4, 5, and 6. Each category had four hypotheses as follows: (see Table 2.2 for full names of the variables)

H1a: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR AID (traditional); ROL FER COC (institutional); HWK CPR SOC FER REG SEC (cultural) significantly contribute to economic growth

H1b: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR AID (traditional); ROL FER COC (institutional); HWK CPR SOC FER REG SEC (cultural) do not significantly Contribute to economic growth

H1c: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR AID (traditional); ROL FER COC (institutional); HWK CPR SOC FER REG SEC (cultural) has an effect on economic growth

H1d: EMP HDI IGS RKN TED HCT EGS FDI GCI GRS ETR AID (traditional); ROL FER COC (institutional); HWK CPR SOC FER REG SEC (cultural) has no effect on economic growth

These hypotheses were tested in chapters 4 and 5. The summary of the findings is demonstrated in Table 7.1 below. The outline of the findings is demonstrated in the next section.

7.2 OVERVIEW OF THE FINDINGS AND IMPLICATIONS

7.2.1 The findings

The environment that includes both economic and social systems determines the development of the capacities of individuals. In other words, the development of an individual's capacities depends on the interaction in the whole environment in which the individual is located. Thus, to explain economic disparities among countries, this thesis has taken into consideration theoretical and empirical approaches that embrace the socio-cultural and political relations, intersubjective meanings and value in economic development, and stochastic environments to explain economic disparities among countries. The context becomes a foundation where people become experts in developing their strategies and using that knowledge in their application (Gauvain and Perez, 2007). This is very important because the knowledge they acquire includes norms, values, skills, and standards and are equally regulated by them regarding any changes and desirability (Guss and Wiley, 2007). Hence, the investigation was

undertaken generally explains why countries such as those in Sub-Saharan region appear not to catch up with other regions regarding economic development as explained in chapter 2.

For this reason, this thesis embraced mixed research design that enabled the investigation of how traditional, cultural, and institutional variables interact with each other in different contexts such as in developed and developing countries to produce measured effects as explained in chapter 3. Hence, the mixed design was chosen to attempt to explain why there is different economic growth among countries. This design has a dynamic element that considers and interrelates multiple components of research strategy rather than emphasizing one particular way in the investigation as observed by (Creswell and Plano Clark, 2010).

The findings in chapter 4 show that the performances of all the three categories of variables depend on the development level of the country. For instance, capital stock (RKN) levels in developing countries impede the flow of goods and services while RKN levels in developed countries propel the flow of goods and services as noted by (Aghion and Howitt, 1998). This is happening despite the investment in capital stock through foreign aid (AID) from developed countries to developing countries. It seems to suggest that the wisdom of capital accumulation is not the critical determinant of economic growth in developing countries. Moreover, the catch-up assumption seems to work in developed countries better than in developing countries. Therefore, combining both developed and developing countries in the investigation could lead to a bias of the results. For instance, the performances of variables in OLS1 (combined) model in Table 4.6 are different from OLS2 (developed), and OLS3 (developing) models in the same table. This suggests that the emphasis on a universal approach to enhancing economic growth among countries overlooks the effect of development levels of countries. Chapter 4 also identified that developing countries need to develop the attribute of being responsible and accountable regarding public services at both individuals and leadership levels because this attribute significantly enhances economic growth in the countries. In other words, individuals' responsibility, rather than perceiving that it is the government's responsibility, for the welfare of individuals and their societies, enhances economic growth. In so doing people become self-reliant and pursue things that will make their societies poverty free. In contrast, it was noted that individuals in developed countries are more responsible and engage in activities that promote economic growth leading to the economic development of the countries.

Also, chapter 4 observed that religion derails development in developing countries. This is in line with literature whereby religion is highly correlated with

obedience as demonstrated in Figure 4.16. Religion seems to provide a context where habits, customs, and education direct the behaviors of people (Guiso et al., 2009; Smith, 1776). Moreover, according to Mathers and Williamson (2011) obedience or religion captured in the concept of culture limits freedom which is a necessary component for enhancing economic development. Likewise, some social scientists have negatively connected Catholicism to economic development (Harrison, 1985; Morsc, 1964). This seems to agree with Branco (2007) who pointed out that the profound influence of secularism in countries where religious life is a status quo fails to boost economic growth. The findings in chapter 4 also show tertiary education (TED) contribute significantly to economic growth in both developed and developing countries. However, the impact of social capital (SOC) a layer of intangible cultural capital (ICC) has more effect size on economic growth than TED in developing countries.

Moreover, Responsibility attribute (FER) is about four times more effective regarding economic growth in developing countries than TED. The layers of ICC such as SOC and FER, in general, capture social conditions that affect individuals in performance outcomes in different societies (Malik, 2013). Different societies embrace social norms that influence people's behaviors and choices, hence influencing outcomes of the whole society.

The findings in chapter 5 indicate that security (SEC) concerns in Sub-Saharan countries (SSC) significantly reduce economic growth. SEC is captured in Table 3.2 generated from views of participants in SSC, and it indicates that it is one of the essential factors in explaining why SSC experience slow and erratic economic growth. The question is what the possible cause of insecurity in SSC is? Some possible suggestions are the ineffective rule of law, little confidence in police or justice systems, political instability, reduced use of public resources, and inadequate regulatory control. These elements are shown in Figure 5.9 capturing security differences between developed and SSC. Developed countries scores are higher than SSC in all security elements in Figure 5.9. Lower scores in SSC in all the elements of security illustrate that security concerns in these countries derail economic growth. For instance, security concerns in slow growth countries reduce GDP per capita growth (GDPPCG) 53 times more than in the fast-growing countries as shown in Table 7.1 below. SEC has further explored in chapter 6, and the observations confirm the findings in chapter 5 whereby firms in Malawi pay very high costs for security than in Botswana as demonstrated in Figure 6.41 in chapter 6 Therefore, failure to address insecurity concerns in most of the slow growth countries is a human factor. Moreover, in most cases demonstrated in self-seeking individuals and government officials corruptly indulging in abuse of countries' resources as observed by

(Ostrom, 2010, p. 642; Krueger, 1974, p. 291; Ehrlich and Lui, 1999, p. 272). This being the case, lack of security in most of Sub-Saharan countries chases investors away due to high security costs for businesses (Ndulu et al., 2007, p. xv; Enamorado et al., 2014, p. 2; Hall and Jones, 1999, p. 94; Beraho, 2007, p. 265; Duch and Taylor, 1993, p. 752).

Similarly, it seems to suggest that lack of entrepreneurship qualities in SSC contributes to the unproductive contribution of RKN as discussed above. This leads to high numbers of unemployed people, leading to high dependency ratios derailing economic development as observed in Table 7.1, hence the persistence of slow and erratic economic growth in the SSC. The findings in Table 7.1 show that civic capital (CPR) significantly reduces economic development in SSC in line with the findings of (Guiso et al., 2010). The negative impact on economic growth in slow growth countries is 17 times more than in fast-growing countries in the SSC region. It seems to suggest that CPR regarding levels are much better in fast-growing countries than in slow growth countries as illustrated in Figure 5.15 in chapter 5. That seems to agree with the finding in chapter 4 section 4.4.4.3 whereby Figure 4.13 shows that civic capital appears to be lacking in developing countries in comparison with developed countries. Hence, encouraging people to participate in politics determines the economic success of fast growth countries compared with slow growth countries.

Furthermore, competitiveness in Table 7.1 significantly contributes to GDPPC per capita (GDPPC) in the 18 SSC. Similarly, in chapter 4 competitiveness significantly contributes to GDPPC in OLS1 (combined), OLS2 (developed), and OLS3 (developing) models, but the impact is much higher in OLS3 (developing) model than other models in Table 4.6. Also, the findings in chapter 5 indicate that AID seems to increase dependency syndrome in SSC. For instance, in chapter 6, it has been noted that AID increases to Malawi every year while in Botswana AID is being reduced. Ironically, Botswana manages to reduce the levels of income inequalities than Malawi. Despite the claim that the accumulation of capital increases economic growth, AID in SSC reduces GDPPC significantly. For example, sub-section 5.3.4.6 discusses the impact of AID in the SSC region. The finding seems contradictory to the assumption of the neoclassical theory that the accumulation of RKN significantly increases economic growth in the countries. It is reported in the literature that in SSC AID averages about 44 % of governments' budgets (Klugman, 2010). This seems to agree with Landes, (1998) who argued that the economic development of countries does not rely on AID but the imbued capacity the citizens have to deal with context challenges.

Chapter 6 a multi-case study of Botswana and Malawi drilled down below the macro data to try to put some of the findings from the other two analytical chapters into context and to explain apparent inconsistencies. Sub-section 6.4.1 generally explored governance issues in Malawi and Botswana. The findings indicate that people in Malawi feel leaders are not doing enough to manage economy issues and that often the country heads in the wrong direction. In contrast, people in Botswana approve the leadership direction of the country and management of the economic issues in the country. Strikingly, the period between 2004 and 2012 Malawians recommended the leaders and was satisfied leaders were heading in the right direction, very contrary to other years before or after. It, therefore, seems to suggest that strong leadership is required in countries which seem to have weak institutions. The study also uncovers that the performance of leaders has a different effect on citizens depending on the vibrant of the institutions in place in the countries. For example, in Botswana, the approval of the president or leaders remained generally constant while in Malawi fluctuated depending on the leader's performance on issues affecting Malawians.

Consequently, sub-section 6.4.2 shows that social capital (SOC) levels in Malawi depend on the performance of the leaders. While in Botswana leaders did not have much effect on the levels of SOC. Further examination of SOC reveals that regarding the effect on economic growth, SOC based on social groups networks other than as diversity of cooperation among people reduces civic capital (CPR) in Malawi. In contrast, in Botswana people believe more in institutions and hence leaders have a marginal effect on the SOC levels. Moreover, the trust among social groups seems low because they have all have trust in the institutions all share in the country. Hence, Botswana has more CPR than Malawi. The finding seems to confirm the results in chapter 5 as illustrated in Table 7.1 below whereby CPR is positively effective more in fast-growing countries than in slow-growing countries.

Chapter 6 also discovers that Botswana has a competitive edge over Malawi. For example, sub-section 6.4.3 shows that Botswana has much ability capacity to produce as indicated in Figure 6.32. It seems to indicate that Botswana is capable of producing goods that maintain or increase the flow of goods and services while Malawi seems not to achieve the level required. This is in line with Neuayer (2001) who claimed that depreciation of both manufactured and natural capital that is greater than investment leads to the unsustainability of economic development. Therefore, the findings in chapters 4 and 5 that capital stock reduces economic growth in developing countries seem to indicate that these countries fail to reach the threshold to maintain or increase the flow of goods and services. Hence, the power to produce as illustrated by

Botswana in Figure 6.32 increases capital levels that enhance economic growth as the case in Botswana. At the same time failure to achieve threshold to maintain or increase capital stock slows economic growth as the case in Malawi. Further examination of capital stock in chapter 6 observed that the differences in gross capital formation between Malawi and Botswana illustrate capability differences in production between the two countries as observed by (Cohen & Uphoff, 1980:216). Figure 6.34 in chapter 6 illustrates the utility capability differences between Botswana and Malawi. For example, gross capital formation (GCF) as a percentage of GDP is higher in Botswana than Malawi. In the same vein, the figure also indicates that gross fixed capital formation (GFCF) is higher in Botswana than Malawi. GFCF is the net saved after subtracting consumption from GCF. The net saved increases capital levels when invested in the economy, hence increasing the capacity to produce. Figure 6.34 also reveals that the gross fixed capital formation in the private sector (GFCFPS) is higher in Malawi than Botswana. Why? This seems to suggest that the private sector in Malawi is better able to use the resources they have to compete with other businesses. Generally, Malawi is a higher consuming society than Botswana, although Botswana has a higher standard of living than Malawi. It is demonstrated in Figure 6.31 in chapter 6.

The finding in Table 5.5 in chapter 5 shows human capital significantly contributes to economic growth in SSC. However, Table 7.1 indicates that human capital significantly impacts GDPPC in slow growth countries while in fast-growth countries insignificantly impacts economic growth. Further exploration in Figure 6.42 in chapter 6 reveals that Botswana (fast growth economy) has higher levels of educational attainment in each category of primary, secondary and tertiary education than Malawi in the slow growth economy group. Graph 1 in Figure 6.43 in the same chapter confirms that Botswana has higher education levels than Malawi, yet human capital insignificantly contributes to economic growth in the countries with fast economic growth while in Malawi, the slow growth economy, human capital significantly contributes to GDPPC. Further exploration shows in graph 2 in Figure 6.43 that educational expenditure in primary and secondary schools in Malawi is higher than Botswana. While in the same vein, tertiary education expenditure in Botswana is higher than Malawi. Surprisingly, regarding the teacher/pupil ratio, Botswana has a better quality of education than Malawi as demonstrated in Figure 6.12. This seems to suggest that human capital contribution to economic growth depends on the development level of the countries as shown in Table 5.5 in chapter 5. Therefore, grouping countries of different economic development levels do not reflect the real productivity of human capital in the countries. Also, Table 7.1 suggests that performance of variables such as human capital and capital stock

depends on the cultural context because the significance of the contribution of these variables is significantly reduced when cultural variables are controlled.

7.3 THEORETICAL IMPLICATIONS

The findings in chapters 4 and 5 revealed that capital stock is negatively correlated with economic growth in 6 developing countries while significantly increases economic growth in 6 developed countries. However, the summary of the findings in Table 7.1 below for chapters 4 and 5 indicates that the negative impact of GDPPC changes when 6 developing countries are grouped into 3 slow growth and 3 fast-growing economies. For instance, the negative effect size of capital stock on GDP per capita in 6 developing countries is about 5%, while in slow growth economies are 7% and there is no indication that capital stock has a significant negative impact in 3 fast-growth economies. Similarly, capital stock in 18 Sub-Saharan countries negatively impacts GDP per capita by 1% regarding effect size. Furthermore, capital stock reduces GDP per capita by 8% in slow growth countries, while in fast growth capital stock does not significantly reduce GDP per capita. The impact of capital stock is different in different countries representing different environments. This finding was further explored in chapter 6 whereby Malawi represented slow growth economies while Botswana fast-growing economies. It was observed that the negative impact of capital stock in slow economies (Malawi) is associated with the insufficient production of goods and services. In contrast, Botswana seems to have the capacity to produce to maintain the flow of goods hence no significant adverse effect on their economic growth. This seems against expectations whereby everyone is expected to catch up, even in developing countries with lower capitals. Hence, the catch-up the assumption of neo-classical theory seems not to work for all countries in the same way and at the same time.

Table 7.1 below also shows that AID has the adverse effect of 2% on GDP per capita in 18 Sub-Saharan countries. On the other hand, AID has the negative effect of about 2% in slow growth countries in the Sub-Saharan region. In contrast, in fast growth Sub-Saharan countries, foreign aid has a positive effect on GDP per capita but not as significant as indicated in Table 7.1. This seems to suggest that some countries benefit from foreign aid while others do not. Further exploration in chapter 6 indicates that Malawi from slow growth economies received more aid from the donors than Botswana from fast-growth economies. Botswana utilized the foreign aid they received and became more self-reliant as time went on. In contrast, Malawi received more foreign aid with time. See Figure 6.35 in chapter 6. AID seems not to work in Sub-Saharan countries

in the case of Malawi and as also indicated in the literature (Greenwald and Stiglitz, 1988, p. 122; Harcourt, 2008, pp. 185-197). Therefore, the accumulation effect as advocated by neo-classical theory seems not to address the challenge of underdevelopment mainly in Sub-Saharan region. The problem of underdevelopment in some Sub-Saharan countries persist despite the foreign help. Why? Partly, this could be due to neo-classical theory missing out by excluding cultural and institutional categories of variables in their estimation models.

Also, there is the inconsistent performance of human capital as indicated in Table 7.1 below. Human capital impacts GDP per capita significantly in the 18 Sub-Saharan countries and 10 slow growth economies. The impact in 18 Sub-Saharan countries is 2% compared to only 0.3% in slow growth economies. Despite, significance impact of human capital in slow growth economies, the countries fail to boost economic growth such as the fast-growing economies where human capital is not significant in contribution to GDP per capita. Further examination in Tables 4.9 and 5.8 in chapters 4 and 5 respectively whereby the performance of human capital changes significantly from the model with all three categories of variables to model when cultural variables are controlled. The results show that the model without cultural variables loses some significance and magnitude of the coefficients. Hence, cultural variables affect the productivity of human capital. These cultural variables not only affect the productivity of human capital but other variables as well. What do these results mean to definitions of human capital? Of course, quality education impacts the productivity of human capital, but also human capital productivity depends on the socio-political structures in the countries to be discussed in the next paragraph.

Table 7.1 below also shows that cultural variable of feeling responsibility significantly reduces GDPPC in developed countries, while in developing countries significantly enhances GDPPC. This seems to suggest that feeling responsibility is an essential attribute in developing countries to enhance economic growth as demonstrated in fast-growing developing countries. Furthermore, Figure 6.36 in chapter 6 shows feeling responsibility in countries such as Ghana, Rwanda, South Africa, and Zimbabwe collected from World Values Surveys from 2010 to 2014. It appears that 72% of the participants in Rwanda mentioned that feeling responsibility is vital to let the children learn at home. It also shows that Rwanda has the highest GDP average growth rates compared to the other African countries as indicated in Figure 6.37 in chapter 6. Figures 6.36 and 6.37 indicate that Rwanda has the most responsible citizens and the country has the highest annual GDP per capita growth. The annual average growth in

Africa is about 5%, Rwanda 8%, Ghana 7%, South Africa 3%, and Zimbabwe 3%. The responsibility of people in Rwanda is also indicated in the responsibilities of the leadership in steering the country to economic development. It is very different from what is happening to most of the other countries such as South Africa, Zimbabwe, and Malawi. Therefore, feeling responsibility seems to be an essential attribute whereby further research needs to be done in future because this thesis could not get more data for Sub-Saharan countries which is a limitation to this study.

Table 7.1 below also shows that trust capital is more important in developing countries or Sub-Saharan countries than in developed countries. This seems to suggest that the performance of the variables depend on environments prevailing in the countries. For instance, chapter 6 analysis showed that Botswana is more competitive than Malawi regarding the scores of the global competitive index. The competitive advantage of Botswana was observed in the environment surrounding Botswana and Malawi in Figure 6.13 in chapter 6. The environments in this figure are illustrated as the rule of law, regulatory quality, political stability, voice, accountability, government effectiveness, and control of corruption. The higher scores of these elements by Botswana than Malawi seems to suggest that institutions are more effective in Botswana than in Malawi. That in turn citizens in Botswana trust more their leaders and government than the counterparts in Malawi as demonstrated in Figure 6.40 in chapter 6 where more Malawians do not trust their leaders. Likewise, in Table 7.1 below trust capital in fast growth Sub-Saharan economies significantly impacts GDP per capita than the slow growth economies in the same region. As demonstrated by Botswana, trust is an essential element in developing countries to stimulate economic growth which is not the case in developed countries which have well-established institutions. Therefore, the failure to include non-economic factors in neo-classical models misses out crucial variables important for growth in developing countries. That suggests that policymakers have to address underperformance of some developing countries by explicitly looking at what variables are essential for economic growth in that country, other than implementing policies which have worked in other countries to countries not performing well economically.

Table 7.1: Variables' performance differences between countries with different institutions, environments, and development levels

6 Developed countries						6 Developing countries						18 Sub-Saharan countries					
6 Developed countries		3 Slow growth developed countries		3 Fast developed countries		6 Developing countries		3 Slow growth developing countries		3 Fast growth developing countries		18 Sub-Saharan countries		10 Slow growth Sub-Saharan countries		8 Fast growth Sub-Saharan countries	
Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %	Variable	Effect (ETA) %
Positive effect on economic growth																	
GCI ***	14.5	GCI***	11.50	EGS	2.87	GCI***	18.13	GCI***	2.10	GCI***	18.0	GCI **	1.38	HCT***	0.38	REG***	4.93
REG**	3.43	REG***	6.74	ROL	2.53	FER ***	4.79			GEF***	13.1	HCT **	1.61	SOC**	0.24	ROL**	3.30
GEF***	6.39	EGS***	5.34	GRS	3.36	GEF***	4.94			REG	0.41	IGS**	1.16	EGS*	0.23	GCI	1.35
HDI***	5.03	TED***	3.14	HDI	1.59	SOC**	2.42			FER	3.08	EGS *	0.94			SOC	0.58
ETR ***	6.16	ETR*	1.12			CPR	0.77			FDI***	5.13	ROL*	1.03			SEC	0.29
RKN*	1.57	ROL**	1.81			TED*	1.23			EGS*	1.96	SOC*	0.81			HCT	0.61
CPR***	5.53	HDI*	0.97									GCI **	1.38				
TED*	1.88																
Negative effect on economic growth																	
IGS*	1.96	EMP*	1.05	IGS*	3.87	REG***	3.62	RKN***	6.78	IGS**	2.98	HDI**	1.16	AID**	2.38	HDI*	2.07
		IGS**	1.88			RKN***	5.28					ETR*	0.92	COC***	2.93	ETR*	1.99
		FER***	4.78									AID***	1.93	RKN ***	7.66	GEF**	4.15
												RKN**	1.11	SEC***	15.34	CPR	0.99
												COC***	2.02	CPR ***	16.40		
												GEF***	2.61				
												SEC ***	4.95				
												CPR ***	5.19				

Significance levels *** p<0.01, ** p<0.05, * p<0.1

Notes. Variables in rows showed green have a positive and significant effect on economic growth in respective countries with similar institutions or environments. Variables in rows labeled yellow have a negative effect on economic growth in different institutions or environments.

Table 7.1 furthermore reveals that CPR seems vital in developing countries while in developed countries seems not may be due to healthy institutions. For instance, chapter 6 reveals that CPR in Botswana is more effective than in Malawi as discussed above. However, an increase in people considering politics “very important” in developing countries increases economic development significantly. Hence the current situation in which many people in developing countries do not consider politics important as indicated in Figure 4.13 in chapter 4, and this view negatively impacts economic development. In contrast, in developed countries, more people consider politics very important rather than not significant which reflects public capital performance in Table 4.6 in chapter 4. Hence, variables’ performance in the models depicts the peoples’ skills, behaviors and views prevailing in the different countries in different settings.

Table 7.1 further shows religion to be negatively associated with economic growth in developing countries, while in developed countries insignificantly impacts economic growth. Figure 4.5 in chapter 4 shows that developed nations tend to place greater emphasis upon more individualistic values of determination to succeed and thrift than do developing nations, whose emphasis is more traditional in orientation, emphasizing obedience and religious faith (Harrison, 1985; Morsc, 1964; Branco, 2007). This may interact with other evidence from the world values studies, which indicate that citizens of developed nations place greater emphasis upon personal responsibility and independence than do citizens of developing nations. Consequently, it might be the case that it is more traditional values, which place greater emphasis upon universal social norms, which may include religious faith and obedience, rather than more individualistic values which may foster a different approach to work and business activity, and hence economic growth. These different approaches seem to suggest that the values inculcated into people’s lives through social networks or culture determine the level of performance of the individuals. Therefore, it is necessary for the leaders in developing countries to understand what the current values in the countries that need change are? Moreover, formulate policies to stimulate people in values that enhance economic growth. This needs responsible and accountable leadership to mobilize people to responsibility and determination values which are essential for economic growth. For example, the fast-growing economies in Sub-Saharan countries seem to grasp the importance of the individualistic values of determination, hence, doing better economically than the slow growth economies in the same region.

All in all, the performance of variables demonstrated in Table 7.1 above indicate that the performance of variables depends on some factors. For instance, the same variables collected from the same sources and within the same period, have performed

differently in developed and developing countries. Furthermore, after grouping each sub-sample of developed and developing countries, variables also performed differently. Also, variables performed differently in slow and fast-growing economies in the Sub-Saharan region. This seems to suggest that the importance of the factors of economic growth varies their importance with the development level of countries, economic growth rates, and also the environments the countries have. This seems to be contrary to traditional economic models whereby what has worked in developed countries has to work in developing countries as earlier on discussed in chapter 1. However, the persistence of slow and erratic growth in developing countries and the evidence produced in this study seem to suggest that broader range of factors seem to play a role in stimulating economic growth among countries mainly in developing countries in Africa. However, due to data inconsistency, further research in the future can further explore the factors found to be crucially important for economic growth in developing countries.

7.4 CONTRIBUTIONS TO THE FIELD OF STUDY

A new approach to understanding economic disparities among countries

This thesis focussed on the interaction between culture and economic growth. The literature review in chapter 2 indicated that the impact of culture on growth is not particularly well articulated at present, and therefore this thesis seeks to contribute to this aspect of theory and practice. Also, to the extent that culture has a significant impact on growth potential and its realization, culture is not homogenous in Sub-Saharan Africa. This will have a potentially significant impact upon different countries and should be taken into consideration by governments and development agencies seeking to promote economic growth and sustainable development across the continent.

Methodology contribution

The thesis used secondary data to uniquely engage mixed methods of quantitative and qualitative approaches to address theoretical and empirical inconsistencies in the literature, as explained in chapter 2.

Theoretical contribution and empirical contribution

The findings in this thesis show that the performance of variables is subject to the economic development level of countries and economic growth status of the countries. Hence, grouping countries with different levels of development seem not to capture the real causes of economic differences among countries. The thesis has

provided insight into how variables interact with each other within a given institutional, political and cultural setting. Also, the definitions of traditional variables such as human capital and capital stock seem to omit the contribution of culture to the productivity of these variables. Hence, consideration by governments and development agencies seeking to promote economic growth and sustainable development across the African continent needs to consider the cultural contexts and develop appropriate strategies to address underdevelopment in the continent.

7.5 LIMITATIONS OF THE STUDY AND FURTHER RESEARCH

The empirical investigations are implemented in chapters 4 and 5. The data used in this study is limited to secondary sources as highlighted in Table 3.2 in chapter 3. Even though the data sources used are reliable and used extensively in the literature, sometimes the type of data source influences the outcome of results possibly due to the different techniques employed in data collection and generation. Hence, the data sources used in this study might not produce the same results in a different context of the study. Chapter 4 has two sub-samples of 6 developed and six developing countries and further divided each of these samples into slow and fast economies. The number of countries in each sub-sample was limited to 6 due to the inconsistency of WVS in mainly developing countries. Due to this limitation, choice of countries in developing countries was difficult for the study. Hence, future research could be desirable by engaging more countries with WVS cultural variables consistently collected in developing countries.

On the other hand, the cultural variables used in chapter 5 are collected from Afrobarometer Surveys covering a period from 2001 to 2015. One of the limitations of using a different source of cultural data in chapter 5 to chapter 4 is that questionnaires used to collect data in surveys may not capture precisely the same topics. For example, feeling responsibility variable is covered by WVS surveys while AS does not. This study finds that this variable is crucially important in African countries. Hence, future research should consider further exploration of feeling a responsibility in African countries.

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APPENDICES

Appendix 1: Studies with similar or different approaches to this study

ARTICLE NO.	AUTHOR(S) & YEAR	PERIOD	THEME UNDER STUDY	METHODOLOGY	RESULTS
1	Maridal, (2013)	1969 to 2008	Cultural impact on national economic growth	Context of study: 92 low & medium developed countries. Dependent variable: Economic growth, Independent variables: Entrepreneurial values, Thrift, Capitalism, Honesty, Trust in people, Trust in institutions, Unselfishness, Initial income, Education, Legal Structure & Property Rights, Free trade, Size of government, Totalitarian, communism, Geography, OLS	Results suggested that achievement orientation plays a very significant role in the economic performance. When values and beliefs support an achievement orientation in the population, productivity and investment increases leading to economic growth
2	Mathers & Williamson, (2011)	1980 to 2004	Cultural Context: Explaining the Productivity of Capitalism	Context of study: 74 developed & developing countries. Dependent variable: growth rate GDP pc; Independents variables: trust, respect, self-determination, obedience, Investment, log area, population growth, Urban Population, primary enrolment, geography, legal origin, GDP pc (log),, WVS	Overwhelmingly, they found that their measure of culture does, in fact, enhance the effectiveness of economic institutions.
3	Gennaioli et al., (2013)	1970 to 2008	Human capital and Regional Development	Context of study: 110 developed & developing countries Dependent variable: Income pc. Independent variables: Years of education, Population, Temperature, Inverse distance to coast, Oil production, institutional quality, expropriation risk, Trust in others, ethnic groups, % Directors & officers in workforce, % Employers in workforce, Dummy variable: Country. OLS	At country level, temperature, inverse distance to coast, and oil endowment are all highly statistically significant in explaining cross-country variation in incomes, and together explain an impressive 50% of the variance.
4	Petrakis & Kostis, (2013)	1997 to 2006	Economic growth and cultural change	Context of study: 41 developed and developing countries. Dependent variable: GDP growth rate. Independent variables: Cultural background: efficiency orientation; performance orientation; future orientation; assertiveness; Power distance, Uncertainty avoidance; social Orientation: gender; egalitarianism; collectivism; human orientation; capital; investments; Human capital; Labour. OLS, PCA	Found that the "Social Orientation" cultural background in societies may be a reinforcing element for long-run economic growth, and these "Social Orientation" factors certainly can be promoted by policy interventions.
5	Minkov & Blagoev, (2009)	1999 to 2006	Cultural Values Predict Subsequent Economic Growth	Context of study: 80 developed and developing countries. The cultural values from WVS, 2006. Factor analysis	Results show clearly that cultural dimension is a reliable predictor of GDP-per-person change, both for
6	Yang & Lester, (2000)	1989 to 1994	An exploration of the impact of culture on the economy: an empirical study of unemployment	Context of study: 18 developed countries. Multiple regressions Dependent variable: unemployment rate. Independent variables: employment protection; replacement rate; benefit duration; active labour market policies; Union density; union coverage index; union employer coordination; total tax rate; households' owner occupied(%).	Conclusion: extraversion (culture) changes substantively the list of powerful explanatory variables for the unemployment rate.
7	Tabellini, (2010)	1995 to 2000	Culture and institutions: economic development in the regions of Europe	Context of study: The sample consists of 69 regions in 8 European countries Dependent variable: yp9500 Independents variable: school , urban rate1850, pc culture; pc	They claimed that culture is a long-run determinant of labour productivity.

				culture pos; pc children, literacy; pc institutions; tertiary education; agriculture share capital in 1979, marital status, gender, the age group, a self-reported social class, health condition, human capital; trial duration. OLS	
8	Shi et al.,(2014)	1978 to 2008	Culture and regional economic development: Evidence from China	Context of study: Regions in China Dependent variable: per capita GDP Independent variables: culture: Protestant churches density; Dialects, trust, agricultural development. Control variables: capital stock, population, human capital; trade, infrastructure, regional institutional quality; population proportion, distance to sea. 2SLS.	The empirical results at province level and state level both indicate that culture has a significant effect on regional economic development
9	Dorius & Baker, (2012)	1981 to 2008	The Spirit of Capitalism, Economic Development, and National Wealth	Context of study: 141 developed & developing countries. Fixed effects regressions from WVS data. Factor analysis reduced cultural data. Dependent variables: i) (CO2); ii) log GDP per capita. Independent variables: Capitalist values: Hard work + thrift and savings, consumption, fertility, innovation, education, religion.	Found that societies that place high value on hard work, thrift, and savings are more innovative, more educated, have higher savings rates, have lower consumption rates and fertility rates, and are more industrialized.
10	Gaddis, (2013)	18 months	The influence of habitus in the relationship between cultural capital and academic achievement	Context of study: USA, longitudinal dataset from Big Brothers/ Big Sisters of America program (BBBSA) during the 1990s. AZ). Dependent variable: GPA ; Independent variables: Cultural capital, Museum visits; Play attendance; Cultural lessons; Time spent reading; Habitus: a) Harter scholastic competence score (HSC); b) B&M school value score (SC). OLS	Overall, their results indicated strong positive effects for habitus on GPA even when controlling for cultural capital and prior ability via first differences.
11	Granato et al., (1996a)	1960 to 1989	The effect of cultural values on economic development: theory, hypotheses, and some empirical tests	Context of study: 25 developed and developing countries. Dependant variable: GDP growth rate. Independent variable: GDP pc in 1960; Prim education in 1960; Sec education 1960; Investment; Post-materialist; Achievement Motivation index: thrift + determination - (obedience + religious faith). OLS & EBA	Found that investment in human capital increases economic growth; capital accumulation increases economic growth. Both achievement motivation and post materialism are significant predictors of economic
12	Aparicio et al., (2015)	2004 to 2012	Institutional factors, opportunity entrepreneurship and economic growth: Panel data evidence	Context of study: 42 developed and developing countries. Dependent variables: Entrepreneurship Monitor(GEM); Opportunity Entrepreneurship(TEA opp). Independent variables: Informal institutions, Control of corruption, one's skills, Formal institutions; procedures for new business, Private coverage to getting credit, Control variable: growth rate; OLS & 3SLS	All the models are highly significant and have high explanatory power, explaining 69.5% of the variance in opportunity entrepreneurship and 79.5% of the variance in economic growth.
13	Dinda, (2008)	1990–2000	Social capital in the creation of human capital and economic growth: A productive consumption approach	Context of study: 63 Developed and developing countries Dependent variables: Trust; GDP Growth rate Independent variables: Years in education	Found that social capital has positive and significant impact on economic growth
14	Temple & Johnson, (2004)	1960 to 1985	Social Capability and Economic Growth	Context of study: 74 developed and developing countries Dependent variable: log difference GDP per capita Independent variables: Constant SOCDEV, ln (I/GDP), ln (n + g + 8); ln (SCHOOL); ln (GDP60); AFRICA; LATINCA; EASTASI; NDUST. OLS	SOCDEV and initial variables explain nearly 40 percent of the growth rate variation, and SOCDEV is strongly significant.

Notes to Appendix 1. From the left, columns are titled in this order: article number, author and year of study, period covered, study theme, methodology engaged, and results

Appendix 2: Results from other studies with similar or different approaches

Article No.	Author(s) &	Period	Theme under study	Methodology	Results
1	Nunn & Wantchekon, (2011)	2009	The Slave Trade and the Origins of Mistrust in Africa	Context of study: 17 Sub-Saharan countries. OLS. Dependent variable: level of trust Independent variables: slave exports, ethnic groups, districts, countries, age, age squared, gender indicator, location indicator, education, religion	They claimed that findings provide evidence for the importance of internal norms and beliefs in transmitting the impacts of a historical shock of slavery.
2	Bjornskov, (2012)	1981-2010	How Does Social Trust Affect Economic Growth?	Context of study: 85 developed & developing countries. OLS; using 1SLS, 2SLS, & 3SLS. Dependent: Schooling; rule of law; price distortion, investment on GDP Independents: Log of GDP / capita, openness, fertility, social trust, post-communist, government share, price distortion, government expenditure.	He claimed that trust appears to be a deeper determinant of economic development than any of other variables involved in the study. Social trust affects growth rates
3	Burhan eat al., (2014)	1970-2010	National intelligence, basic human needs, and their effect on economic growth	Context of study: In top 10 and bottom 10 countries ranking in all variables out of 118 countries. Dependent: GDP growth Independents: LogGDP1970, IQ, HEALTH, PEACE, SWL, IQ*HEALTH, IQ*PEACE, IQ*SWL	Their study demonstrated that IQ was the strongest predictor of economic growth compared to other socioeconomic predictors.
4	Beraho, (2007)		Colonial history and its effects on Sub-Saharan economic development	Context of study: Sub-Saharan Data were compiled from statistical data from various countries. Also library sources	This paper finds that the Sub-Saharan countries misruled themselves and ruined their economies soon after they gained independence.
5	Granato, Inglehart & Leblang, (1996a)	1990-1992	The effect of cultural values on economic development: Theory, hypotheses, and some empirical tests	Context of study: 25 developed and developing countries. OLS; bootstrap; EBA. Dependent variables: Per Capita Economic Growth (1960-89) Independents variables: Per Capita GDP in 1960, Primary Education in 1960, Secondary Education in 1960, Achievement Motivation, Korea/United States Dummy, investment, Post-materialists	Their findings suggested that one specific dimension-achievement motivation-is highly relevant to economic growth rate.
6	Cazzavillan, Donadelli & Persha, (2013)	1950-2010	Economic growth and poverty traps in Sub-Saharan Africa: The role of Education and TFP Shocks.	Context of study: 32 sub-Saharan (unlucky) and G7 (lucky) economies (7). They used VAR; descriptive analysis to. Examined the dynamics of education, capital, income, and TFP.	They confirmed that the TFP seems to explain a larger portion of the income gap between Sub-Saharan and G7 economies than education
7	Rindermann & Thompson, (2011)	1995 - 2007	Cognitive Capitalism: The Effect of Cognitive Ability on Wealth, as Mediated Through Scientific Achievement and Economic Freedom	Context of study: 90 countries OLS Dependent: TFP growth; Independent: IQ. Est.IQ, Pre-1970 IQ, h 1960, Log TFP 1960	Social environment with higher IQs allows intelligence to flourish (Rindermann & Heller, 2005). And creates collective cognitive ability that further stimulates the physical, social, and cultural environment.
8	Jones, (2011)	1960-1995	Cognitive skill and technology diffusion: An empirical test	Context of study: 113 countries (interpolations created by Lynn and Vanhanen based on demographic comparisons with neighboring countries), and a smaller database of countries that uses only pre-1970 scores.	High-IQ citizens are better at discerning good economic policies; and high-IQ citizens are better at building good Political institutions.
9	Messinis & Ahmed, (2012)	1970 -2003	Cognitive skills, innovation and technology diffusion	Context of study: Many countries in Africa and the OECD. System GMM; OLS Variables: EDU, TIMSS, SKILLS, H	Overall, the evidence confirms the view that cognitive skills are strong predictors of domestic innovation and technology diffusion.

10	Maridal, (2013)	1969 to 2008	Cultural impact on national economic growth	Context of study: 92 low & medium developed countries. Dependent variable: Economic growth, Independent variables: Entrepreneurial values, Thrift, Weber's Spirit of Capitalism, honesty, Trust in people, Trust in institutions, Unselfishness, Initial income, Education, Legal Structure & Property Rights, Free trade, Size of government, Totalitarian, Communism, Geography. OLS	Results suggest that achievement orientation plays a very significant role in the economic performance of a country and more important than the combined influence of the quality of formal institutions and the quantity of formal education.
11	Oketch, (2005)	1960-1995 (Five year periods)	Determinants of human capital formation and economic growth of African countries	Context of study: Sub-Saharan Africa 47 countries OLS; 2SLS Dependent: GDP per capita growth Independents: human capital, physical capital, Faster population growth, labour force, Oil exporter, lagged per capita growth	Concluded that investment in human capital and physical capital are important determinants of economic growth and development in Africa.
12	Serranito, (2014)	1970-2010	Determinants Of Technology Catch-Up In Africa And In The Middle East: A Panel Data Analysis	Context of study: 32 African & Middle East countries GMM panel estimator was used Dependent: GDP (Y) Independents: physical capital (K), human capital (H), and labour (L), TFP (A), the urban population, the skilled emigration rate	Human capital stock and degree of openness of a country are the only variables that have a positive and robust effect on the TFP growth. Convergence is not an automatic phenomenon for all countries.
13	Bangwayo-Skeete, Rahim, & Zikhali, (2011)	2005	Does education engender cultural values that matter for economic growth?	Context of study: 43 developed and developing countries. PROBIT; OPROBIT Dependent: Cultural values index Independents: education, media, sports, arts, church, labour union, political party, environment, charity, consumer, gender, age, married, children, income, employed, religious, Christianity, Muslim	The results show that formal education matters significantly for perceptions of cultural values. As people become more educated there is increased likelihood of placing more emphasis on achievement motivation, as opposed to conforming to traditional social norms.
14	Minkov & Blagoev, (2009)	1999 to 2006	Cultural Values Predict Subsequent Economic Growth	Context of study: 80 developed and developing countries. Done at a nation level in all variables and all correlations. The cultural values are from the WVS by Factor analysis	Results show clearly that the cultural dimension is a fairly reliable predictor of GDP-per-person change.
15	Gaddis, (2013)	18 months	The influence of habitus in the relationship between cultural capital and academic achievement	Context of study: USA, data from Big Brothers/ Big Sisters of America program (BBBSA) Dependant variable: GPA; Independent variables: Cultural capital, Museum visits (last 12 months) Play attendance (last 12 months) Cultural lessons (hours per week) Time spent reading (hours per week); Habitus: a) Harter scholastic competence score (HSC); b) B&M school value score (SC).	Overall, these results indicate strong positive effects for habitus on GPA even when controlling for cultural capital and prior ability via first differences.

Notes to Appendix 2. The table shows authors and title of the study, year or period of study, context and the findings of the studies.