

THE NIGERIAN INFORMAL ECONOMY: A REGIONAL ANALYSIS

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A thesis submitted in partial fulfilment of the requirements of Nottingham Trent
University for the degree of Doctor of Philosophy

May 2014

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Acknowledgement

Many thanks to my Director of Studies, Professor Robert Ackrill, and Advisors: Dr Carlyn Dobson and Dr Simeon Coleman. Their unflinching support and encouragement in the past two and a half years are greatly appreciated. It was a privilege having them as my team of supervisors.

I thank the Vice-Chancellor of Nottingham Trent University for awarding me the scholarship which made this study possible. Many thanks to Dr Bruce for his encouragement, and all NTU graduate school staff, who contributed in one way or another to the success of this thesis.

Special thanks to Mr Okhain, FIWON's General Secretary - Comrade Komolafe, and all FIWON executive members. Many thanks to the Senior Pastor, Covenant Life Baptist Church - Rev C. D. Ugbah, colleagues, and friends, too numerous to mention. Their prayers and support in the data gathering for this thesis are invaluable.

My unreserved gratitude goes to my father of blessed memory, Mr. S.E. Igudia for teaching me how to read, discipline, and love for hard work and academic excellence. I appreciate my mum, Mrs V. I. Igudia and siblings, who continue to pray for me, support and wish me well in all endeavours of life.

I am deeply indebted to my wife - Mrs Isoken Igudia, son - Joel, and twin daughters - Jean and Jane for their love, patience and understanding throughout the period of this research. Above all, I am highly thankful to the Almighty God for his grace, strength, and mercies upon me, which made the completion of this work possible.

Abstract

In recent years, particularly post 1990 and contrary to the expectation and predictions of many economists, there is ample evidence that the informal economy has expanded globally (Schneider *et al.*, 2010). This, in addition to finding out the potential of the informal economy, has sparked renewed interest amongst researchers. Until now, however, most of the 'empirical' studies have concentrated on the Asian and Latin American countries (Debrah 2007), and most methodological approaches for studying the concept have remained debatable (Aryeetey, 2010).

This thesis seeks to close a gap in the literature by developing two novel research frameworks: the Individual, Firm and State (IFS), and Four Circles (4Cs) to explain the link between theories and methods, as well as the impacts and benefits, of the informal economy. The study also utilises secondary and collected-primary data, modified-MIMIC and Currency approaches, to explore the determinants, characteristics, and regional prevalence of the Nigerian informal economy, as well as the relationships between the Nigerian informal economy and key macroeconomic variables/business enterprises.

The results of the study demonstrate that the Nigerian informal economy has 65.4% participation rate, contributes an equivalent of 52-53% of official GDP, and provides cheap and easily accessible goods/services to members of the public, income generation for the government, and job, income and poverty reduction for informal participants. However, participants in the sector are confronted with many challenges: inadequate finances, inconsistent government policies, unfriendly business environment, and inadequate infrastructures. Similarly, the main determinants of the Nigerian informal economy are population growth, corruption, unemployment, and survival factors. Also, the study reports significant regional differences in participants' income and education levels. Finally, the study finds the informal economy more prevalent in the north-west and south-west regions of Nigeria.

Recommendations are proposed on the basis of the IFS; individuals and firms operating in the informal economy are encouraged to build up skills and become membership of relevant-trade unions. The government should implement policies which facilitate the creation of jobs, friendly business environment, entrepreneurial development, financial and training support for participants in the informal economy.

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Chapter 1 Introduction

1.0 Background

With a population of over 168 million, Nigeria is the most populous country in Africa (World Bank, 2013), and following the announcement of its rebased GDP on 6 April 2014, it became the largest economy in Africa (BBC, 2014). Also, Nigeria is the biggest exporter of crude oil in Africa, and the world's sixth largest oil producing country (NNPC, 2014). This has made Nigeria's economy highly reliant on revenue from crude oil exports, whilst other sectors of the Nigerian economy are neglected. For example, the revenue from crude oil exports accounts for around 95% of Nigeria's total export earnings, and 79.9% of the government's total earnings (CBN, 2012). These, in addition to the decline, globally, of crude oil prices in the 1980s, triggered a significant decline in government's revenue, infrastructure provision, widespread poverty, massive rural-urban migration, and an expansion in the informal economy in Nigeria. For example, by the end of 2002, "Nigeria's per capita income had plunged to about one-quarter of its mid-1970s high [... and] the economy continues to witness massive growth of informal sector economic activities, estimated by some to be as high as 75% of the total economy" (Federal Republic of Nigeria, 2012). This estimate, though requiring further investigation, underscores the role of the informal economy in Nigeria.

The Nigerian informal economy is dynamic, large and heterogeneous. Up till now, however, few empirical studies have been conducted to ascertain its size, characteristics and determinants. This research closes this gap, by utilising quantitative data, with sophisticated modern econometrics in a regional study of the Nigerian informal economy.

Finally, it is worth recognising that the terms 'informal sector' and 'informal economy' are used interchangeably in this research. Wherever they appear, the terms refer to informal employment, employment in the informal economy (e.g., self-employed), and all legal activities, goods and services, which contribute to the gross domestic product (GDP) of a country (e.g., Nigeria), but are not captured, for one reason or another by official statistics. Informal employment refers to informal sector-type jobs, irrespective of where carried out, whilst employment in the informal economy refers to all people carrying out one form of activity or another in the informal economy (see Section 6.2; ILO, 2010; 15th and 17th ICLS guidelines). This definition excludes illegal or/and criminal activities from the study.

1.1 Brief Overview of the Informal Economy

The concept of the informal economy has received an increasing interest in the literature in the past four decades. The emergence of the concept in the development literature is arguably located in the developing countries-urban centres' studies of the early 1970s. Specifically, the term was introduced as formal and informal income opportunities in a conference paper presented by Keith Hart in 1971, and 'informal sector' was thereafter used extensively in the ILO/UNDP employment report on Kenya in 1972 (Hart, 2012). The overarching preoccupation of these early studies was on what the state should do to solve the problem of unemployment, which was christened the unemployment crisis in developing countries. The thrust clearly maps out the dominant Keynesian economic thought of the time, which argued that full employment is only achievable through state intervention. In contrast, Hart (1971, 1973) in an Accra-Ghana study, and ILO (1972) in a Kenya study, observed that the unemployment situation in developing countries did not fit into the textbook sense. Particularly, the studies found a large number of individuals who, though they had no formal jobs (unemployed in the textbook sense), were daily engaged in some form of activities that enabled them to survive. These different informal income opportunities were reportedly outside the official regulations of the state (see Hart, 2012). To summarise, the Hart/ILO account appears to argue that the informal economy emerged to close employment gaps in developing countries.

Yet, four decades later, Hart (2012) argues that the global economy has been informalised. Similarly, Neuwirth (2011) contends that the informal economy is both the fastest growing economy in the world, and the future of the global economy. Many factors are arguably responsible for this development. Hart (2012, pg. 1) pins it down to the dominant economic thought of "state management of the economy and the market decades of one-world capitalism" of the 1970s through to the 2008 financial crisis. His argument is that the global economy and the world of money have become lawless, and now exist beyond the realm of public accountability. In fact, the neoliberal ideology which started as privatisation of public interest has now added to it a mixture of power and money, and the free market system has become both the cause and major culprit. Thus, the informalisation of the world was brought about by the collapse of state controls over the economy, and in particular the national capitalism that was the hallmark of the twentieth century, but is now gradually crumbling. Arguably, this started at the end of the Second World War with the dismantling of the European empires, and the

introduction of the Bretton Woods agreement, hence the establishment of the United Nations (UN), World Bank (WB) and International Monetary Fund (IMF).

Immediately following the establishment of the UN, WB and IMF, the overarching agenda was of reducing the income gap between the rich and poor, in the name of development. There was prosperity in the 1970s and so was the burgeoning welfare system. However, in the 1980s, the neoliberal concept of the free market started to take a strong hold in the global economy, executed through the mandatory privatisation of public enterprises and imposition of structural adjustment programmes (SAP); developing countries were the first to have a bite of this unusual apple. One of the conditions of the structural adjustment process was the dismantling of state restrictions on the flow of international money and resources. This, in addition to the privatisation of public enterprises, effectively took the control of enterprises out of the national and international regulatory spheres. Consequently, the entire "world economy itself became radically informal. Not only did the management of money go offshore, but corporations outsourced, downsized and casualised their labour forces, public functions were privatised, often corruptly, the drugs and illicit arms trades took off, the global war over 'intellectual property' dominated capitalism's contradictions and [... as a concept, the informal economy no longer describe the urban poor in developing countries alone, as some have once argued, but it is now an essential] universal feature of modern economies" (Hart, 2012, pg. 2).

In yet another approach, the informal economy has arguably emerged to solve the problems created by urban population explosion (for example, see Sethuraman, 1981). According to this orthodoxy the urban population growth of the 1960s and the years after, caused by a young and reproductive age-group of rural-urban migrants, led to a population explosion in big cities. Its consequences were low standard of living, low quality lifestyle, poverty, and an expanding informal sector. Contrary to expectations, economic development, thought to be the solution to the problems in developing countries, could not create the needed opportunities in terms of jobs, prosperity and incomes for individuals to stem the problems of the urban centres. The mood is well captured by Sethuraman (1981, pg. 8): "economic development failed to generate adequate employment and income opportunities, notably in the modern sector which received bulk of the resources, to cope with labour-force explosion." Generally, the unemployed of the population will seek available means of survival and the most popular, possibly the only, destination is the informal economy, where they operate as self-employed, hawkers, wage earners, scavengers, shop-owners, shop-keepers and several other activities unregulated by the state. This reflects a similar picture of England,

painted over a century earlier, Engels (1844; Sethuraman, 1981, pg. 8): "... the 'surplus population' of England, which keeps body and soul together by begging, stealing, street-sweeping, collecting manure, pushing hand carts, driving donkeys, peddling or performing occasional jobs. In every great town a multitude of such people may be found. It is astonishing in what devices this 'surplus population' takes refuge".

Evidently, similar but, by far more complex, heterogeneous and dynamic conditions exist in modern economies, as there are informal participants who operate at the margin of society, as well as those who engage in highly productive activities. Similarly, informality tends to exist in all kinds of economies, in different forms, and has appeared in unexpected places (see Becker, 2004; Schneider, 2005). However, the nature, size, characteristics and determinants of the informal economy tend to differ from country to country. This has more than made it important to consider individual countries' circumstances. The current research on the Nigerian informal economy is a response to this need.

1.2 Justification of Study

In recent years, particularly post 1990 and contrary to the expectation and predictions of many economists, there is ample evidence that the informal economy has expanded globally (Schneider *et al.*, 2010). This, in addition to finding out the potential of the informal economy, has sparked renewed interest amongst researchers. For example, it is becoming increasingly accepted that the informal economy contributes to the overall economy, has a link with the formal economy, and has a large share of global economy and workforce. Its role is reported to be more critical in periods of economic crisis (Horn, 2009; Lee, 1998; Tokman, 1992) and economic downturns, and according to De Soto (2011), the informal economy is the key to future growth and stability.

Additionally, the suggestions that informality has links with growth, employment, income, poverty and inequality have triggered new line of arguments that supporting those 'working poor' in the informal economy would alleviate poverty and inequality. Africa's case is more palpable as the informal economy contributes overwhelmingly to employment and output in the economy (Verick, 2006), and beyond being associated with the structure of the economies it "has also evolved from a number of traditional practices" (Aryeetey, 2010, pg. 2). It has been argued that the informal economy provides jobs, reduces poverty and contributes to the growth of real GDP in sub-Saharan Africa (SSA) countries. For example, ILO (2002c) and (Verick, 2006), observe that the

informal economy in SSA countries represents about 72% of non-agriculture employment. Similarly over 93% of new jobs in SSA are created by the informal economy (Gundogan *et al.*, 2009), and the SSA's informal enterprise-sectors contribute on average 41% of non-agricultural official GDP (Becker, 2004). In the case of Nigeria, estimates indicate that the informal economy contributes, on average, about 56.2% of official GDP (Schneider *et al.*, 2010) and accounts for over 90% of new jobs created in the economy.

Conversely, the informal economy arguably constitutes costs, by negatively affecting growth and reducing the public services available to everyone, as the activities of the former use these services less efficiently (Loayza, 1996), erode tax base, which results in worse provision of public services and infrastructure (Giles *et al.*, 2002), and lower growth, which leads to the inefficient functioning of the goods and labour markets (Dell'Anno, 2008). Also, it is argued that the informal economy creates unfair competition between formal and informal firms (Enste, 2003), and distorts competition within economic sectors and among national economies (Dell'Anno, 2008). Controversy also exists over the importance of the concept itself. Some have argued that it exists at the margin of society and hence, should be discouraged (see Loayza, 1996; Giles *et al.*, 2002; Enste, 2003; Dell'Anno, 2008), whilst others argue that the sector is not only important to global economy but it is also the future (see Tokman, 1992; Becker, 2004; De Soto, 2011; Neuwirth, 2011).

The jury is still out on this. The size, role, determinants and characteristics of the informal economy in any particular economy are empirical questions, which must be investigated (Sookram and Watson, 2008). While several studies exist on the informal economy in the literature, a huge gap exists on its study in Nigeria, as most of the empirical studies of the subject have concentrated on the Asian and Latin American countries (Loayza, 1996; Maloney, 2004; Debrah, 2007). With the exception of Friedrich Schneider, most studies on Nigeria are basically theoretical reviews or descriptive analyses of the informal economy (see examples Duru, 2012; Onyebueke and Geyer, 2011; Olofin and Folawewo, 2009; Klein, 1999; Trager, 1987; Yusuf, 2011), or have taken a different approach to the one proposed in this research (see examples Arimah, 2001; Akande and Akerele, 2008). Thus, the current empirical study of the Nigerian informal economy seeks to close a huge gap that exists in the literature.

Considering that Nigeria is the most populous country, and largest economy, in Africa, focussing on it for this research is hugely justified. Additionally, the history of the

country justifies its use for this study. For example, the government of Nigeria implemented a SAP in the 1980s and studies have linked the growth of the informal economy to the SAP (Verick, 2006). Another justification is that either growth or cyclicity in the Nigerian economy will not only affect the SSA region, but will influence the global economy. So, it is important that Nigeria gets its economic policies right. Similarly, it is also important for the country to implement the right policies on the informal economy, considering the role of the latter in the Nigerian economy, as shown in Chapters 7-9. It is the need to have a comprehensive study which streamlines policy-recommendations, and enhances the performances and contributions of participants in the Nigerian informal economy, that gives an overwhelming justification for this study.

1.3 Objective of Study

The objectives of this study are:

- ➔ To explore the key determinants of the Nigerian informal economy, in order to indicate what theory/(ies) is/(are) applicable in Nigeria's informal economy .
- ➔ To investigate empirically the size, features, effects and relationships between the macroeconomic variables, businesses and the informal economy of Nigeria.
- ➔ To examine the regional prevalence, characteristics and determinants of informal economic activities in Nigeria.

Research Questions

To achieve the research objectives, I aim to answer the following questions:

1. How does the informal economy impact on official GDP growth in Nigeria?
2. What are the characteristics of the informal economy in Nigeria, and what does a state level/regional analysis add to our understanding of the informal economy literature?
3. What are the determinants of the informal economic model in Nigeria, and how can other countries with informal sectors of similar size learn from the Nigerian experience?
4. In which way(s) and to what extent is the informal economy related to real macroeconomic variables, and small businesses in Nigeria?
5. What do the results of this project suggest should be the policy response to the informal economy?

Conclusion

To conclude this chapter, I provide a brief outline of the subsequent chapters of the thesis as follows:

Chapter 2 reviews the main theories which explain the origin of the informal economy. The dualist, structuralist, legalist, voluntarist, illegalist and realist theories will be discussed. Chapter 3 investigates the factors that are responsible for expansion in the size of the informal economy. Such determinants as burden of government regulation, burden of taxation and social security contribution, state of public services, social transfers, and labour market regulations will be examined.

In Chapter 4, the impacts, particularly micro and macro evidence on the determinants and impacts of the informal economy, will be analysed. Under the micro evidence, the neoclassical leisure-income model of microeconomic theory, characteristics of informal participants and informal entrepreneurship will be discussed. Under the macro evidence, I shall explore the relationship between the informal economy and key macroeconomic variables.

Relevant frameworks and concepts for this study are presented in Chapter 5, with research methodology and methods discussed in Chapter 6. Particularly, the conceptual, IFS-triangle, and 4Cs frameworks will be analysed in Chapter 5, whilst the philosophy and underpinning methods of study will be discussed in Chapter 6. Also, I present in Chapter 6, the primary data collected from the regions of Nigeria for this study. Finally, this thesis employs the currency and MIMIC techniques, and the SPSS, SPSS-AMOS and EViews software for data analysis, as discussed in Chapter 6.

Chapter 7 utilises the currency and MIMIC techniques, and secondary data, to compute the size of the Nigerian informal economy. Additionally, the relationship between the informal economy and macroeconomic variables in Nigeria is also analysed in this chapter.

I utilise the collected primary data to analyse the characteristics, determinants and regional prevalence of the Nigerian informal economy in Chapter 8, whilst research questions are answered in Chapter 9, and thesis conclusions are given in Chapter 10.

Chapter Two Origins of the Study of the Informal Economy

2.0. Background

In Chapter 1, I presented a brief history of how the concept of the informal economy emerged and began to dominate the multi-disciplinary academic literature in the past four decades. Chapter 2 aims to build on that by providing a detailed review of the underpinning theories of the informal economy. Particularly, I hope to discuss the main theories which explain the origin of the informal economy in this chapter. Surprisingly, the concept of the informal economy, which was first used to describe a type of income opportunities in Accra Ghana (Hart, 1972, 73), has been a subject of many debates in the literature. While some (e.g., ILO, 1972; Enste, 2003; Dell'Anno, 2008) have linked it to the characteristics which exist in less developed economies, particularly for the marginalised poor, the effect of population explosion (see Sethuraman, 1981), others (e.g., Tokman, 1992; Horn, 2009; Neuwirth, 2011) have linked the concept with many positive outcomes and arguably, the future of the global economy.

In fact, following streams of reported results, it is becoming the consensus that the informal economy contributes to the overall economy, has a link with the formal economy, and represents a large share of the global economy and its workforce. Particularly, De Soto (2011) and Neuwirth (2011) have predicted the informal economy to be the key to future global economic growth and stability, as it currently accounts for two-third of the global workforce. Similarly, the positive contributions of the informal economy are reported to be more prominent in periods of economic crisis and downturns (Horn, 2009; Lee, 1998; Tokman, 1992). Evidently, informality has links with, and positively impacts, growth, employment, income, poverty and inequality (Gundogan *et al.*, 2009; Becker, 2004; Schneider *et al.*, 2010). Conversely, the informal economy is arguably marginal and constitutes a cost as it lowers growth, causes inefficient functioning of the goods and labour markets (Dell'Anno, 2008), creates unfair competition between official and unofficial firms (Enste, 2003), and distorts competition within economic sectors and among national economies (Dell'Anno, 2008).

These different arguments are based on the existing dominant theories of the informal economy: the dualist, structuralist, legalist, illegalist, and survivalist. The current thinking/realist theory however suggests the need to integrate these basic theories and

consider the elements that are more appropriate to a particular segment of the informal economy. Each of these theories is now discussed in turn.

2.1 Dualist Theory

The dualist theory brings to the fore the idea of unlinked-dual economies described in various forms as mainstream formal and unofficial economies (see Losby *et al.*, 2002), capitalist and peasant system of production (McGee, 1973), traditional and modern sectors (Boeke, 1953), firm centred and bazaar type economies (Geertz, 1963), upper and lower circuits (Santos, 1973), modern and traditional economies (Sethuraman, 1976), and dichotomy within the urban labour market (Moser, 1978). Other concepts which have found expression in dualism are formal and informal income opportunities (Hart, 1971, 1973), rich and poor (Sethuraman, 1981), trade-service and industrial sector (Reynolds, 1969), and those which describe the informal economy alone, including the unprotected, unorganised, and un-enumerated sectors (see Mazumdar, 1976; Sethuraman, 1976). Although different concepts have been used in the literature, the meanings are similar, suggesting two distinct economies in which relative advantages exist in one over the other. Thus, the dual concept describes an economy which operates at two extremes, periphery and mainstream, and notes that the informal economy, in particular, operates on the economic periphery.

Defining dualism: Dualism, defined by Sethuraman (1981, pg. 11) as the “coexistence of high and low income sector” is the foremost theory of the informal economy (see ILO, 1972; Hart, 1973; Sethuraman, 1976; 1981, 1988; Tokman, 1978). It argues that transactions in the economy occur in two distinct and unlinked economies, that is, the official and unofficial economies. The official economy, also known as the formal economy, operates under the purview of government regulations; the unofficial economy, known as the informal economy, defines all economic activities which preclude government regulations (Chen, 2007; Dell’Anno and Halicioglu, 2010). This view deems the informal economy exists at the margin to provide income or a safety net for the poor (Becker, 2004; ILO, 1972), represents a systemic flaw, and shows the failure, in the economic model of a country (Bureau and Fendt, 2011). These economic failures are evidenced in a country’s high level of corruption, underdevelopment, lack of growth for the formal economy, and inadequate jobs for the existing workforce. Similarly, the mismatch between growth in population and modern industrial employment on the one hand, and people skills and the structure of modern employment opportunities on the

other hand, further compounds the unemployment problems for the existing workforce (Chen, 2012; Rossis, 2011; Sethuraman, 1988; ILO, 1972).

Hypothesis and critique of the dualist theory: The overarching hypothesis of dualist theory tends to be that the informal economy is a key attribute of a developing economy, and would disappear once a sufficient level of modern industrial development or economic growth is achieved by a country. However, dualism has been criticised on this ground, and for its assumption that developing countries' urban economies should be divided into two sectors, formal and informal. Specifically, if the argument of two extreme economies is valid, it tends to also suggest the existence of other forms of economic activities in-between, hence, some (see examples, Dellot, 2012; Moser, 1978) have rather suggested that the economy is a continuum. Again, the dualist theory has been strongly critiqued for assuming that the informal economy is a phenomenon that is temporary, transitory and will disappear as participants are expected to scale up to the formal sector over time. Unfortunately for the dualists, results from the literature tend to favour their critics. Specifically, results have shown that informality has not only grown over time but has been reported in different forms, and in unexpected places, including transition and developed economies. In addition, it has been shown that the informal economy, by its very nature and the circumstances under which it originated, is important in both income generation and job provision, and will continue to play active roles in the global economy. Finally, results from the literature have also established formal-informal economy linkage. This, in addition to the structuralist theory rebuffs the unlinked-dual-economy assertion of the dualist theory.

Dualism factors: By dualism factors I mean the factors which have been identified by the dualists' theory as responsible for the origin of the informal economy. One such factor is population growth. Principally, population growth, especially urban population explosion induced by rural-urban migration, is majorly responsible for the origin and expansion of the informal economy, as reported in the early debates. In addition to population growth, other factors that have reinforced the dualistic view of the economy include "factors derived from colonial heritage, patterns of trade and foreign aid, patterns of allocation of resources with an urban bias, presence of multinational corporations and international transfers of technologies" (Sethuraman, 1981 pg. 12), the need to survive, and the various contextual meanings given to the concept by professionals from different academic disciplines, such as the anthropologists, economists, and sociologists. In particular, the colonial heritage argument relates to the culture introduced by former colonial powers to their protectorates, which were in direct contrast to what the

traditional people were used to. Some authors (see for example, Garcia-Bolivar, 2006; Aryeetey, 2010) have termed it, custom and tradition, and have treated it as a separate theory.

Generally, the custom and tradition argument views the informal economy as the norm, with order established by custom and tradition. In fact, the old order is challenged by modern and formal institutions. In this context, the informal economy and its activities are never seen as illegal and strange; rather, what is strange to the traditional people is the formal system which is imposed on them, and unknown to them, and consequently, they find it difficult to comply with it (see Garcia-Bolivar, 2006). Some (for example see Hart, 2012) have conceded that what has become the formal sector emerged from the national bureaucracy of the twentieth century which was based on rules and regulations. The general features of formality are the "regularity of its order, a predictable rhythm and sense of control ... the rule, the invariant in the variable" (Hart, 2012 pg. 4-5). However, to the custom and tradition theory, it is the individuals who engage in what national bureaucracy has termed informal activities that fit the above features described by Hart. Hence, the informal economy is the predictable rhythm, old order, the rule, the invariant in the variable that is being challenged by modern and formal institutions (see Castells and Portes, 1989). Some evidence exists to support this argument. For example, Aryeetey (2010) observes that in Africa, the informal economy goes beyond being associated with the structure of the economy, and has also evolved from a number of traditional practices. Thus, the informal economy is large in some parts of the world due to the fact that individuals have always done things the informal way; this undermines the formal system which had been forced on them.

For its part, the channel of influence for the pattern of trade and foreign aid relates to the content and direction of trade, and the sectors, in an economy, which have benefitted from foreign aid. On the one hand, it has emerged as, and continues to be, a major concern to stakeholders that the terms of international trade do not favour developing economies, as these countries become relatively poorer by engaging in international trade. At the same time, developed economies have relatively become richer by engaging in international trade. One of the arguments is that developing economies only export primary goods which are more income inelastic than the manufactured goods, produced and exported by developed countries. Potentially, this is a reason the dualist believe that the informal economy is a characteristic of developing countries, as primary goods and simple, labour-intensive manufactures are mainly the outputs generated by the informal economy. The terms of trade argument tends to be

underpinned by the hypothesis developed independently by Raul Prebisch and Hans Singer in 1950. In particular, Prebisch (1950) and Singer (1950) argue that "specialization in primary commodities, combined with a relatively slow rate of technical progress in the primary sector and an adverse trend in the commodity terms of trade, had caused developing economies to lag behind the industrialized world" (Cuddington *et al.*, 2002). On the other hand, foreign aid to developing countries has arguably not generated needed formal employment, as it often goes to sectors which employ 'informal workers' (i.e., individuals working in the informal economy). For example, aid is often given for the eradication of polio in Nigeria. The usual practice is that those who execute the projects often employ informal workers who assist in carrying out the assignments.

In addition, the need to survive, which has featured prominently in the literature, and has been treated as a separate theory, tends largely to trigger and enlarge the informal economy. Generally, survivalism is at the heart of the four-main theories of the informal economy; dualist, structuralist, voluntarist and legalist. In particular, the dualist theory would think of the informal economy as a safety net for the individual, but the structuralist, voluntarist, and legalist theories, would think of it as the firm's option for reducing costs in order to be competitive. Although, I would argue that the need to be competitive is also an act of survival, the present study would discuss the survivalist argument under dualism, as the former represents most of the attributes which underscore the latter. To a large extent, the survivalist argument paints a picture of participants in the informal economy who, are poor, live on the margins of society. This is a key argument in dualism, and it underpins their conclusion that the informal economy should be discouraged, and the government should make jobs available to individuals and create an enabling environment for businesses to flourish.

Additionally, the need to survive is arguably the principal reason for a growing informal economy in developing and transition countries (Husmanns, 2004), where individuals engage in any form of activity, legal or illegal, for their livelihood (Moser, 1978; Ferman and Ferman, 1973; Losby *et al.*, 2002). In fact, the informal economy is naturally seen as a survivalist sector, as it exists to provide jobs and income opportunities for a large number of the citizens who are unable to or may never be able to secure formal employment (Hart, 1971, 1973; ILO, 1972; Sethuraman, 1981; Akande and Akerele, 2008). These categories of individuals are present in all major cities in developing and transition countries, even in advanced countries; it includes the young adult male carrying fare on his motor cycle, the young adult female selling ripe plantain, vegetable, fruits or food in a tray on her head, the children selling bags of sealed water, snacks,

groundnut, gala across the cities, the young adults and children selling mobile phone recharge cards at traffic junctions, the individuals selling all kinds of things ranging from mobile phones, its accessories, clothing materials, shoes to bags and lots more on wheelbarrows, on their hands and most times in trays or bags on their heads, and the small business owners in the corner of their rooms making water or plastic bags. This list is by no means exhaustive. Only one thing is certain, these individuals have one thing in common, that is, they participate in the informal economy in order to survive.

De Soto's (2011) description of the events that sparked-off the recent revolution in some Arab countries clearly reinforces the survivalist argument. Specifically, De Soto notes that the recent, albeit on-going, change in the "Arab revolution" was sparked off in Tunisia when a fruit seller, Bouazizi, who had seven dependants, set himself on fire on the 17th of December 2010, as his \$225 dollar worth of stock was confiscated by the authorities. Generally, "\$225 might not appear to justify suicide, the fact is that, as a businessman, Bouazizi had been summarily wiped out. Without those goods, Bouazizi would not be able to feed his family for more than the next month" (De Soto, 2011, Pg. 1). His pain, his frustration and his action is pinned down to the realisation that "he had been deprived of the only thing that stood between him and starvation – the loss of his place in the only economy available to the poor" (De Soto, 2011, Pg. 2).

Some empirical support for the need to survive argument has been reported in the literature. For example, in their study of some American cities, Ferman and Ferman (1973) found informal economic exchanges to be the means of survival for the urban poor. Similarly, Moser (1978) observes that in countries where unemployment benefits and other social securities are not in place, the adult population is forced to earn a living by any means, legal or illegal. Thus, several reasons might have been given for the origin and expansion of the informal economy but the theory of survival has continued to play a major role.

However, the survivalist argument has been critiqued in a number of ways. For example, Rossis (2011) branded it obsolete, but his verdict appears to be hastily reached as Tokman (2001) has shown that the logic of survival has continued to be the major factor responsible for the origin and expansion of the informal economy. Another critique of the survivalist theory is that the individuals who go into the informal economy during periods of crisis for survival reasons often continue in it, at least partly, even after the austerity that brought them into the sector is long gone (Bureau and Fendt, 2011; Bajada, 2003; Spiro, 1993; Schneider, 1994b, 1998; Schneider and Enste, 2000). A possible

explanation for this is the habit already developed and the investment already put in place by these individuals. For example, during recessions, many households find their way in the informal economy in order to survive. They make some investment in capital, real and human, make connections, build social networks, personal relationships and distribution channels, and are then able to sell their products and earn huge profits from informal sector activities. Being rational economic agents, these individuals or households do not leave the informal economy when the economy eventually recovers and starts growing again; rather they choose to remain in the informal economy (see Spiro 1993). This, as argued by some authors (see examples, Schneider, 1994b, 1998; Schneider and Enste, 2000) is possibly responsible for policy makers' unwillingness to significantly reform the informal economy, as they feel any resultant gain may not be commensurate with associated costs.

Additionally, the observation of Fapohunda (1981) in his study of Kano state, Nigeria, tends to contrast the survivalist theory. Specifically, he found that most of the participants in the informal economy were happy with their businesses and were not willing to change their jobs; hence, very few were willing to take up wage employment. In addition, he reports a mean income for participants in the informal economy which suggestively, on the average, was well above the legal minimum wage, though, the median wage shows that over half of the participants earn less than the legal minimum wage. The current study aims to provide new evidence on the Nigerian informal economy. However, unlike Fapohunda, who studies only Kano state, this thesis utilises national secondary data, and collected-primary data from 23 (out of 36) states of Nigeria, to study the Nigerian informal economy.

Classification of informal activities: Generally, the dualist theory appears to be underpinned by neoclassical economic theory (Dell'Anno and Halicioglu, 2010), and Weber's theory of rationalisation (Hart, 1973; Sethuraman, 1988; Rossis, 2011). While neoclassical theory states that the market is segmented by official sector rigidities, introduced through legislation or negotiation, Weber's theory describes the scope and characteristics of bureaucratic organisations and economic institutions. Based on the two theories, informal and formal roles and activities have been classified by various authors. For example, Hart (1971, 1973) (see Rossis 2011) used Weber's theory to classify and define formal, legitimate informal and illegitimate informal income opportunities. On the one hand, this classification brings wages earned in the public and private sectors, transfer payments, pensions and benefits under formal income opportunities. Similarly, legitimate informal income opportunities cover a large range of activities, including,

primary and secondary activities such as tailoring, large capital-involving firms such as transportation, petty traders, street vendors, private money transfers, and other services such as musicians and photographers. On the other hand, illegitimate informal income opportunities cover services such as prostitution and smuggling, and transfers such as larceny and gambling.

Writing a few years later, Sethuraman (1981) followed a similar classification and gave a list of three units of approaches for defining and studying the informal economy: employment basis, household basis, and activities/enterprises basis. A dichotomy on the basis of the enterprises or activities suggests the economy is a continuum of enterprises which produce goods and services. However, as already noted, dualist theory has been critiqued on this basis. Specifically, critics argue that if the economy is truly a continuum, then, dividing it into two sectors should not arise as it is possible to divide it into more sub units. The counter argument however is that, the segmentation of the economy into different units is an empirical matter. In contrast to the neoclassical system in which investments are made to meet arising opportunities for profitable returns, the informal sector arises out of the necessity to create one's own employment. The overarching goal of the informal sector in the classical sense is job creation and not necessarily investment for profitable returns. Hence, enterprises or individuals operating in the informal sector are not seen as capitalists or entrepreneurs; at best, they are production units which are still evolving or in the process of evolution. At the lower end of this continuum is the informal sector, as participants do not have entrepreneurial and technical skills, they possess little or no capital and do not have the capacity to borrow. Over time, however, informal sector participants are expected to overcome these constraints and move up to the enterprise state. Similarly, occupants at the middle of the continuum are small enterprises who operate at a lower scale and use means of production and organisation similar to that used by the informal sector.

In yet another explanation by the dual theory of the informal economy, some (see Doeringer & Piore, 1971; Saint-Paul, 1997; Cross and Johnson, 2000; Losby *et al.*, 2002) have divided the economy into four parts, namely, primary, secondary, informal and illegal sectors. While the primary sector is characterised by taxed and regulated regular paid jobs, the secondary sector is characterised by jobs with less regulation and minimum security. White-collar and pink-collar (i.e., low-paying, and traditionally held by, or regarded as, women) jobs, respectively, are examples of primary and secondary sectors' jobs. The informal sector, on the other hand, is characterised by people that are neither able to secure jobs in the primary nor secondary sectors. Examples of informal

sector workers are self-owned, small-business enterprises that operate on "cash-only or unregulated arrangement", and employees working "off-the-books" (Losby *et al.*, 2002 pg. 6). Finally, illegal work which is beyond the scope of this study is characterised by all forms of criminal activities that generate revenue.

Sethuraman (1976) shows two groups of analytical trajectory of the informal economy, including those identified by their income level or by income related variables, for example, access to housing; and those identified by activities that determine their income level, for example, personal characteristics, and employment status. He is believed to have been influenced by the earliest proponents of the dualist theory, including Hart (1971, 1973) and ILO/UNDP (1972), who respectively defined the informal economy by listing different types of income generating activities and characteristics of the enterprises. As noted by Sethuraman (1976), Hart's study is different from others as it listed new categories of income generating activities, particularly, the study "identified with the population living in slums or squatter areas" (pg. 5). Those in the informal sector were seen as unorganised, un-enumerated, of low skills, self-employed, and the only destination for new entrants into the labour market who, in the midst of no alternative, were forced to take up informal jobs. Also, participants were labelled urban proletariat, underemployed since they worked below legal minimum wage, and the sector was seen as the main reason for rural-urban migration. Conditions of work and wages in the informal sector were reportedly not protected by unions, government or both, hence it is an unprotected sector. Specifically, Hart (see Sethuraman, 1981, pg.11) labelled these new income generating activities, particularly those in the trade and services categories as "'informal' income-generating activities or the informal sector", since "most of them were in the unorganised sector and fell outside the purview of the existing statistical data collection machinery".

For its part, the ILO/UNDP (1972) Kenyan employment mission report tends to emphasise the promotion of policies specific to the generation of employment and income. Specifically, it explains the concept of duality in terms of the characteristics of the enterprises, and as a result, views the informal economy as the direct opposite of the formal. In particular, the study lists the characteristics of the enterprises that operate in the informal economy to include those mainly of family ownership, easy entry, reliance on indigenous resources, small scale, in unregulated and competitive markets, and use labour intensive and adapted technology, and their workers have skills acquired outside the formal school system. The formal sector is characterised by contrasting features including, difficult entry by new firms, use of imported resources, corporately

owned, operate on a large scale, in markets that are protected, use capital-intensive and often imported technologies, workers' skills are acquired through formal training and are often expatriate. This definition, unlike the one given by Hart, is based on the enterprise and not the individual.

Again, the two economies have been classified in terms of opportunity and profitability; while the informal economy, where workers are predominantly self-employed (Chen, 2012), is considered to be relatively disadvantaged, the formal economy is relatively profitable and privileged (Peattie, 1987, Moser, 1978; ILO, 1973; Hart, 1973). In contrast, the informal economy has been reported to be "economically efficient and has comparative advantages in relation to similar activities developed in the formal sector" (Tokman, 1978 pg. 2). This contrasting position seems to have been captured by Sethuraman (1976, pg. 12) who notes that "the informal sector plays a positive role in the sense that it provides goods and services of value to the economy and provides them at minimum cost because of the free entry of new enterprises to the sector and hence competitive conditions of supply. But unfortunately informal sector enterprises are subject to a variety of internal constraints – such as the lack of managerial talent, technical skills and the incentives to seek information on better technology and marketing possibilities – resulting from the small scale of operation". He thus added that the above, in addition to the various restrictions and sanctions placed on participants by public authorities, and the unwillingness of policy makers to transform the sector, explain the reason participants in the informal economy cannot fully harness the opportunities thrown open by development.

In conclusion, the dual theory opines two distinct economies where transactions occur in the economy, the formal and informal economies, but, tends unwittingly to focus on the categories of participants in the informal economy who engage in traditional and survival activities. Hence they argue that the informal economy should be discouraged, as it is a system that is economically dangerous and parasitic (WIEGO, 2011). However, the preceding discussion also shows that a second side exists to the story; particularly, some informal economic activities are economically important or, at the very least, less marginal. Suggestively, the less marginal activities should be modernised and transformed into the formal economy through public action (Bureau and Fendt, 2011), and governments should seek to benefit from its positive contributions. For example, the informal economy plays a crucial role in periods of economic crisis (Horn, 2009; Lee, 1998; and Tokman, 1992), as it provides jobs for many of those displaced from their formal jobs. However, leaving the informal economy tends to be sticky, as the return to

economic prosperity often does not stop participants from continuing their informal activities.

2.2 Structuralist Theory

In contrast to dualism, the structuralist theory, popularised by Moser (1978) and Castells and Portes (1989), argues that the formal and informal economies are interconnected and interdependent, and the latter exists due to the structured development within the capitalist mode of production. Particularly, the informal economy is the result of formal firms' attempts to reduce the cost of labour, increase competitiveness, reduce power of labour unions, avoid or limit state regulations, and respond to global competition and industrialisation. The process of industrialisation, for example, has brought about "off-shore industries, subcontracting chains, and flexible specialization" (Chen, 2012, pg. 5). Part of the structuralist theory's claim is that firm owners engage in a power struggle with the state in response to the latter's legislation on taxes and social security, and as a result, operate informally in order to reduce the cost of starting-up and running their businesses. This also reduces to its barest minimum the influence of trade unions.

Additionally, while the informal economy tends to be the general term for all the sub-economies not captured by formal economic-measures, the structuralist theory views it as an offshoot of capitalism (Henry 1987; Chen, 2012). Arguably, these capitalist-participants in the informal economy tend to be driven by the desire to make profit. As Moser (1978, pg. 22) notes, "Capitalist production is, above all, interested in the extraction of profit, not the provision of employment" to members of the public. Specifically, in periods of relatively full employment, it shares several characteristics with the advanced Western Capitalist model, as small firms in the informal economy, via their connections, accumulate capital (see Portes *et al.*, 1989). Although, informal firms are small in scale, labour intensive, locally based, unregistered and are usually concealed from regulation, the means of exchanges between the supply- and demand-side of the informal economy are similar to what exist in the western capitalist system. These exchanges often take place in three different ways: intimate, associational, and entrepreneurial, as trading is usually carried out within limited geographical areas over head-on relationships between friends or acquaintances (Henry, 1987).

Also, the structuralist theory asserts that the informal economy, in part, acts as subordinate to the formal economy, as the former is subcontracted by the latter to reduce the cost of labour and inputs. In fact, by engaging the informal economy, formal

enterprises or capitalists are able to remain competitive (Castells and Portes, 1989; Becker, 2004; Chen, 2007). The present thesis brings clarity to the concept of the formal and informal economic-subordination by treating it under the structuralist theory. This is important, because the meaning of the subordinate argument becomes hazy when treated as an attribute of dualism. For example, Dell'Anno and Halicioglu (2010) note that the dualists also think of the formal and informal economies as subordinate since there is a regular flow of activities between them, especially from the formal to the informal economy. Treated this way, under the dualist theory, the subordinate argument becomes highly contentious. In particular, treating subordinate argument as an attribute of the dualist theory contrasts the policy stance of dualism. While the dualist theory does not support the continuous existence of the informal economy, the subordinate argument suggests that the formal economy depends on the informal economy for survival; hence, both economies should be allowed to co-exist. Finally, formal-informal economic subordination describes two economies which are linked (Sethuraman, 1981). However, it is very difficult to accommodate this within the dualist theory, considering the fact that their definition of dualism clearly states that the formal and informal economies are distinct and unlinked. Thus, on this premise, the current study will stick with the structuralist, and reject the dualist, theory's claim that the informal economy is subordinate to the formal.

By defining the informal economy as subordinate to the formal economy, the structuralist theory proposes some level of integration and cooperation between the firms operating in the formal economy and participants in the informal economy, as large volume of goods and services are regularly exchanged between the two sectors in both directions. Specifically, Tokman (1978, pg. 3) notes that the "informal sector is seen as highly integrated to the rest of the economy exporting three quarters of its production and importing a similar proportion of its consumption". Although, Tokman's results show that formal and informal firms are integrated, there tends to be a contrasting argument. Particularly, both formal and informal firms are seen as operating in a competitive environment and are inclined to providing relatively cheap goods and services, which is intended to give one firm a competitive edge over another, as they strive to continue to survive as a business unit (Dell'Anno and Halicioglu, 2010; Moser, 1978; Portes *et al.*, 1989).

What makes this competition more interesting is the suggestion that the participants from both formal and informal sectors do not have a level playing field. For example, in relative terms, the informal economy appears to have a comparative advantage over the

formal in terms of similar activities developed in both sectors, as the former is more economically efficient than the latter (Tokman, 1978). On the one hand, this result makes sense when considered in the light of formal firms' activities, which are subject to government regulations, social security contributions and taxes. These taxes paid by those operating formally are used to provide the facilities which enable the formal and informal firms to carry out their business activities, albeit, compete. On the other hand, if the difficulties experienced by participants in the informal economy in accessing financing, training, and information on markets and competition are considered, participants in the informal economy will tend to be at a relative disadvantage. The jury is still out on this. However, the structuralist theory contends that the government should address the imbalance in relationship between formal firms and subordinated-informal enterprises and individuals (Chen, 2012).

Additionally, three types of informality: survival, dependent exploitation, and growth, have been defined by proponents of the structuralist theory (see Portes *et al.*, 1989; Rossis, 2011). Survival activities arise when participants engage in the production and/or sale of goods and services for survival reasons. The principal argument tends to suggest that labour is in abundant supply and the modern industrial sector cannot provide sufficient jobs to accommodate it. However, the conditions created by the modern industrial sector are rejected by these unemployed individuals, who will find a way to make ends meet. In particular, these individuals engage in any form of activity that will put food on their table and those of their dependants. For its part, dependent exploitation depicts the activities of formal firms who engage informal enterprises with the sole aim of driving down their own costs. Some of the strategies employed by these firm-owners are: changing the nature of jobs from standard to non-standard, and contracting production to small firms and/or informal workers (see Portes *et al.*, 1989; Chen, 2012). This is similar to the observation made by Piore and Sabel (1984), who noted that production was completely revolutionised, as large scale production firms were decentralised, reorganised, and small flexible firms set up in their place. This reinforced the sub-contracting of the production process as noted by Portes *et al.*, (1989). Finally, growth describes the process where small firms or informal workers use their connections to accumulate capital, as already discussed (see Section 2.2).

The structural theory has gained support from empirical evidence. For example, Moser (1978, pg. 22) found that the surpluses in the informal economy are transferred to the formal, and that the latter also benefit from the former through the "low cost of labour reproduction". Similarly, in his PhD thesis, Rossis (2011) found evidence to support

Castells and Portes' (1989) view on subcontracting as an element of structuralist theory. Particularly, he found subcontracting to be a common practice among large firms, small firms, individuals and entrepreneurs. However, he argues that the definition by Portes (1989) is too generous and could be applied to a wide range of cases relating to the informal economy. Similarly, the interconnection between the two sectors has been widely reported (see for example, Bajada, 2003, 2005; Castel, 2007; Webster *et al.*, 2008; Bureau and Fendt, 2011). In particular, Bajada (2003, 2005) found a positive relationship between the two economies in a macroeconomic study.

Similarly, Devey (2006), Godfrey *et al.* (2005), Ince (2003), Arimah (2001), Witt and (2000) observe that multiple backward and forward linkages exist between the formal and informal economy. In particular, Arimah's study of the nature and determinants of formal-informal enterprise linkages in Nigeria, Witt's study of fruit and vegetable distribution, Ince's study of manufacturing of garments in Durban and Godfrey *et al.*'s study on the manufacturing of clothing in Cape Town, have revealed multiple linkages between the formal and informal economies. Forward linkages involve selling informal outputs to markets or firms which are outside the borders of the informal economy. It can also mean the subcontracting of some production processes to informal enterprises by formal firms; especially, pertaining to the use of informal products as raw materials or/and consumer goods by the formal firms. Backward linkages, on the other hand, involve getting inputs outside the borders of the informal economy; this may include the supply of finance, raw materials, consumer goods, and machinery/equipment from the formal to the informal economy (see Arimah, 2001). Conversely, Fapohunda (1981) reports limited forward integration between the two economies in Kano state, Nigeria. Similarly, he reports that sales of produce by informal firms were to people in the locality of the (informal) firm.

2.3 Legalist, Voluntarist and Illegalist Theories

The preoccupation of the legalists tends to be underpinned by how microenterprises respond to government bureaucracies and overregulation. Specifically, the theory describes the relationship between the activities of the informal economy and the formal regulatory environment. It contends that firms wilfully opt to operate in the informal economy in order to avoid the cost, time and rigorous processes associated with the formal registration of their businesses, and the huge costs of remaining formal which comes in the form of high taxes, overregulation, and the high cost of public utilities (De

Soto, 1989; Becker, 2004; Dell'Anno and Halicioglu, 2010). For example, a report on the informal economy in Mexico has listed taxation, low salaries and excessive regulations to be the main causes of informality (Macias and Cazzavillan, 2009). Thus, the root cause of informality, according to the legalist theory, is the "hostile legal system [which] leads the self-employed to operate informally with their own informal extra-legal norms" (Chen, 2012, pg. 5). In fact, the legalist theory appears to suggest that microenterprises will continue to operate informally as long as government rules and regulations remain burdensome and costly. Conversely, informal enterprises will be able to formalise, carry out asset conversion to real capital, and unleash their productive potential if the state simplifies its bureaucratic process (De Soto 1989; Chen 2012). The main critique of the legalist theory is that it tends unwittingly to focus on the enterprises in the informal economy and the environment for regulating formal firms, at the expense of the individuals working in the informal economy, in particular, and the formal economy, in general. However, the bureaucratic rules are set by the collusion of the state and the formal firms (see De Soto, 1989).

Closely related to the legalist theory is the voluntarist theory, which argues that the informal economy is full of entrepreneurs who wilfully choose to carry out their activities in the informal economy in order to avoid costs and regulations. Some of these costs include taxes, rents, and other costs of operating formally (see Maloney, 2004; Chen, 2012). Unlike legalism, which emphasises the effect of bureaucracy, voluntarist theory tends to focus on the rational decision process of informal sector participants. Specifically, the voluntarists deem that the individuals or entrepreneurs, who engage in the informal economy, at first, engage in a cost-benefit analysis of the formal economy vis-à-vis the informal economy, before deciding to operate informally. Finally, the voluntarist theory argues that the only way the state can increase its tax base and reduce the unfair competition confronting formal firms is by making sure that informal enterprises operate under the regulatory environment. Though the legalist theory acknowledges the fact that informal enterprises engage formal firms in unfair competition, they have been criticised for paying little attention to the linkages which exist between formal firms and informal enterprises (see Chen, 2012).

Conversely, the illegalist thrust appears to be on the experiences of transitional and advanced countries, as it views informal economic activities as illegal, hidden or underground (see WIEGO, 2011). However, Hussmanns (2004) argues that survival reasons dominate informality in transitional and developing countries, hence, underground or illegal theories appear inapplicable to their situation. A distinction has

however been made between goods that are legal but not underground, legal and underground, and illegal (see System of National Accounts (SNA), 1993). The production of goods and services forbidden by law, or all forms of productive activities carried out by unauthorised producers are known as illegal production. Underground production, on the other hand, is productive activities that are deliberately concealed from regulating authorities, but would be legal if production adheres to regulatory compliance. The paradox is that both formal and informal firms can engage in the production of any of the categories of goods. The concern of the illegalists is that informality has its costs. WIEGO (2011) calls it the cost of illegality to the economy which includes avoidance of taxes and labour laws, absence of property rights, inability to enforce contracts, avoidance of fees and penalties, and inability to receive benefits from formal sector. The trajectory of analysis of this cost also includes the participants themselves as they are not able to enforce contracts, property rights, and benefit from credit facilities and incentives provided by the state for formal firms. The current study will not include the illegalist sector.

2.4 Realist Theory

I have coined this concept, realist theory, to describe the thoughts which recently emerged in the debates of what factors are responsible for the origin of the informal economy. The realist theory is underpinned by the thinking that the informal economy is complex and heterogeneous; hence, it is not possible to give it a one-size-fits-all treatment. Strikingly, the key-inducing factors can be grouped into three; the Individual, Firm, and State (IFS) (the IFS concept shall be discussed in detail in Chapter 5). Each of the theories earlier discussed has given insight to a particular aspect of the informal economy by using one, or a combination of, these inducing factors in their arguments. There are obvious merits to each of these perspectives. While it is true that individuals participate in the informal economy to avoid costs and regulations, others get involved out of necessity, some others to survive, and as custom and tradition demands.

Similarly, it may sound plausible that many participants in the informal economy do so to avoid entry barriers to the formal economy, but it is also interesting to note that most of these participants would be happy to see these barriers reduced to enable them to formalise. Also, recent global developments have thrown some people into the informal economy involuntarily (see Chen, 2012; Standing, 1999). Particularly, Tokman (2001) argues that participation in the informal economy has been influenced by changes in the

global economy. Such burgeoning global dynamics as decentralisation of production and labour, informalisation of employment, globalisation, enhanced trade and international mobility of factors between and among countries are reported to have played crucial roles in this regard. This has brought about a situation where, for example, the sub-contracting of production processes does not only now take place between firms but can also occur between nations. Similarly, the retention of few formal employees and the use of more casual workers for daily operations, have become employers' strategies for cost reduction, payroll taxes, social security and pension contributions avoidance. In some circumstances, both employers and employees connive to make jobs informal. This often takes place when the employees agree with their employers not to pay social security contributions in order to have bigger take-home pay.

Again, in contrast to the margin posture of the dualists, the realist theory suggests that the informal economy is a breeding ground for entrepreneurs and enterprises (Williams and Nadin 2007), a feature of modern capitalism (Chen, 2007; Hart 2012), and the future of the global economy (Neuwirth, 2011). For example, Williams (2006), Williams (2008b), and Bureau and Fendt, (2011) observe that over 70% of entrepreneurs in the UK started off as informal firms, engaging in informal activities at the initial stages of forming their companies. Similarly, multiple forward and backward linkages have been found to exist between the formal and informal economies (Devey, 2006). Although some have argued that the informal economy has become the refuge of the formal economy (see Meagher, 1995; Xaba *et al.*, 2002; Devey, 2006), this has been robustly defended by the multiple backward and forward linkages found to exist between the two economies, formal and informal (see Ince, 2003). For example, evidence from South Africa shows significant exchange of goods and services between the informal and formal economy (May and Stavrous, 1989; Xaba *et al.*, 2002). Similarly in Nigeria and China, Neuwirth (2011) reports the extensive use of informal participants and the informal economy by formal distributors and manufacturers.

Finally, it is important to note that participation in the informal economy is both by choice and compulsion. More people participate in the informal economy during periods of economic crisis. This confirms the fact that people are forced to engage in informal activities based on the existing economic reality. Similarly, some economic agents engage in informal activities to survive and some others, as a normal practice of culture and tradition. What this suggests therefore, is that the informal economy is both complex and heterogeneous, and its study requires a broad approach that will take

cognisance of all the different aspects. The emphasis should be what strengths can be encouraged and conversely, what areas of weakness should be discouraged.

Conclusion

This chapter has examined the theories relating to the origin of the informal economy. While the dualist theory viewed the economy as having two distinct, unlinked economies, structuralist theory argues that the two economies are integrated and interlinked with each other. For its part, the legalist theory emphasises the effects of bureaucracy and government overregulation on firms' decisions to operate in the informal economy, but the voluntarist theory argues that those who go into the informal economy choose to do so after carrying out a cost-benefit analysis, as rational economic agents. Also, the illegalists theory tend to concentrate on illegal activities, and the experience of advanced economies. Finally, the realist theory, which is the current thinking, integrates all aspects of the early debates. In particular, it contends that the informal economy is complex and sophisticated, and requires more than one theory to capture all its inducing-factors. Hence, it argues that all previous theories are correct, but each is more or less applicable in a given setting. This then calls for an individual country analysis to unravel which theory (theories) is (are) more applicable in each case.

In Chapter 3, I intend to take this investigation further by presenting a review of the factors which determine the informal economy. By determinants of the informal economy, I mean factors, which over time have caused an expansion of the informal economy.

Chapter Three Determinants of the Informal Economy

3.0 Background

Following the discussions in Chapter 2, it is appropriate to restate that the informal economy has become an established phenomenon; it has grown over the past four decades and will be relevant in the future of the global economy. The overarching goal of this chapter is to examine in detail the factors which have potentially influenced the expansion of the informal economy. Although, this study, for ease of analysis and the need to make clear the relationship between the sections on the theories of the informal economy and the rest of the thesis, including the sections in this chapter, has coined the Individual, Firm and State (IFS) concept (see Section 5.1 for discussion) to represent these factors, there is a need to identify and single each out for detailed discussion. There are many cause-effect interactions in both directions between the informal economy and these factors: limited absorption of surplus labour, barriers of entrance to the formal economy, weak institutions, redundancies, increasing use of capital instead of labour, demand for low cost goods and services, uncommitted or unaware government, economic hardship and poverty, more women entering the labour market (see Becker, 2004), macro- and micro-economic factors, burden of government regulation, burden of taxation and social security contribution, state of public services, social transfer, and labour market regulations (see Schneider and Enste, 2000; Loayza, 1996; Thomas, 1992; Schneider, 2003, 2005; Schneider *et al.*, 2010). Each of these determinants, discussed in the following sub-sections, is largely an S in the IFS framework, except sub-section 3.7, which presents socioeconomic and demographic considerations, and is largely an I factor.

3.1 Government Regulations

There appears to be a consensus that government regulations have significant effects on the size of the informal economy (for example, see Hart, 2012; Schneider *et al.*, 2010; Schneider and Enste, 2000; Schneider, 2005; Johnson *et al.*, 1997; Johnson *et al.*, 1999; De Soto, 1989; Friedman *et al.*, 2000; Sookram and Watson, 2008). For example, the dominant economic thought of state management and capitalism or market system of the 1970s, is arguably responsible for the origin and expansion of the informal

economy (Hart 2012). Specifically, Hart notes that the informal economy emerged from the failures of institutions and corporations dominated by government's regulations, conformity to rules, and national bureaucracy of the twentieth century.

In an earlier study of the "shadow economies around the world: size, causes, and consequences", using "the physical input (electricity) method, the currency demand and the model [MIMIC] methods" for 76 countries, Schneider and Enste (2000, pg. 16) have suggested that the size of the informal economy of a country will be small if it is able to raise large tax revenue, achieved under a regime of low tax rates, few laws and regulations, and limited corruption. Similarly, countries are likely to have a small informal economy if they have a standard and effective rule of law that is financed by tax revenues. This perhaps explains why there is a large informal economy in transition countries as they tend to have high levels of regulation, which in itself, causes a high and significant incidence of bribery and corruption, high taxes on participants in the formal economy, numerous regulatory frameworks, and consequently, an expanding informal economy (Schneider and Enste, 2000). Wealthy countries, on the other hand, have a relatively small informal economy as they have a relatively low burden of regulations, low taxes for formal economy participants, good and effective rule of law, high revenues, and corruption control mechanisms (Johnson *et al.*, 1998a).

Generally, such regulations as excessive labour market regulation, social security legislation, and other legislation which creates bottlenecks in the firms' recruitment and operational processes, are key determinants of the size of the informal economy. For example, excessive regulation of the labour market comes in many ways. One such way is in the area of fixing minimum wages, a price floor above the market equilibrium wage rate, which is capable of increasing the level of unemployment and size of the informal economy. Particularly, these results have been reported from OECD studies, as fixed minimum wages have not only increased unemployment, but it has also led to an increase in the size of the informal economy (see De Gijssel, 1984; Schneider and Enste, 2000). Similarly, official working hours' regulations can influence the size of the informal economy. For example, reducing official working hours in Germany and France led to a significant expansion in the size of the informal economy in the two countries (*ibid*).

Also, an emphasis on social security contributions tends to increase the cost of labour, and hence the size of the informal economy (Schneider *et al.*, 2010). The channel of impact is twofold. On the one hand, if the cost of labour is too high, employers are forced to look for ways to reduce costs of production, hence, they turn to the informal

economy to beat these down. On the other hand, employees are forced to seek extra income in the informal economy as a result of the increase in social security contributions.

However, the critical factor on regulations in the literature is not necessarily the number, but the level of enforcement of these regulations. Specifically, it has been reported that intense government regulation reduces the “freedom (of choices)” (Schneider and Enste, 2000, pg. 24) which formal economic agents have, and this, in turn, leads to the expansion of the informal economy (Johnson *et al.*, 1997). Thus, countries that have their economies highly regulated appear to have a high percentage of their GDP in the informal economy. In a study that supports their argument, Johnson *et al.* (1997) reported an 8.1 percentage point rise in the informal economy when the regulation index rose by 1 percentage point, *ceteris paribus*. Similarly, De Soto (1989), Tokman (1992), Alm *et al.* (1995), Loayza (1996), and Sookman and Watson (2008) note that the informal economy grows under a burdensome government.

Conversely, Tokman (2001) argues that regulatory inadequacies do not cause informal activities, rather, informal activities result from the inability of the economic system to provide sufficient productive jobs for the existing workforce. Tokman’s argument notwithstanding, there are strong enough reasons to believe that government regulations are responsible for the expansion of the informal economy in some countries. This conclusion is well supported by the proven arguments that improvements in government regulations often facilitate the formalisation of informal activities.

3.2 Tax Burden and Tax Evasion

The role of the tax burden on the informal economy has been well researched and documented in the literature (see Giles and Johnson, 2000; Schneider and Enste, 2000; Schneider, 1994b, 2005; Sookram and Watson, 2008; Anderson, 1977; Isachsen and Strom, 1980). The general consensus suggests that the tax burden is one of the main factors which influences people’s decision to participate in the informal economy. For example, several studies have noted that an increase in the tax burden leads to an increase in the size of the informal economy (see, for example, Giles and Johnson, 2000; Schneider, 2005; Sookram and Watson, 2008). Taxes, particularly the marginal tax rates, which are the most important factors in a neoclassical model, serve multiple purposes. For example, it influences the economic agent’s decision making process, as it represents a critical factor to be considered when balancing the trade-off between

labour-leisure and the substitution-income effects. Specifically, Schneider and Enste (2000 pg. 19) have noted that individuals give considerable attention to the effect of taxes when making "labor-leisure choices". Similarly, the effect of taxes on income is given adequate consideration before individuals decide to work in either the formal or informal economies. Typically, a high marginal tax rate causes substitution effects and distorts labour-leisure decisions (Thomas, 1992). In fact, the substitution effect will be larger than the income effect if the individual is able to receive income from the informal economy. Potentially, this will make individuals take up fewer working hours in the formal economy, in order to increase their leisure time, as well as their participation in the informal economy (Schneider and Enste, 2000).

There appears to be a constant bi-directional relationship between the informal economy and the tax burden. On the one hand, a rising tax burden pushes individuals or firms into the informal economy, hence increases the size of the informal economy (see Giles and Johnson, 2000; Sookram and Watson, 2008), as these economic agents are compelled to seek alternative sources of income from the informal economy. On the other hand, a growing informal economy places further pressure on the government to increase taxes, which in turn, encourages more economic agents to informalise. Additionally, there is an incentive to participate in the informal economy if, in the official economy, the difference between the total cost of labour and after-tax earnings is high, as individuals would seek to avoid the difference and participate in the informal economy. The difference depends on the system of social security contributions and overall tax burden, hence, the bigger the difference, the higher the incentive to participate in the informal economy (Schneider and Enste, 2000). Arguably, reducing the tax rate, which by extension reduces the tax burden, will of necessity be accompanied by a reduction in the size of the informal economy.

In addition, I noted in Section 3.1 that the size of the informal economy of a country will likely be small in size if it is able to achieve high tax revenues with a regime of low tax rates, few laws and regulations, and limited corruption. Conversely, it appears some studies (see Spiro 1993; Joo, 2011) do not find it convenient to recommend a significant reduction in the tax rate as a strategy for reducing the size of the informal economy, because such a policy may not induce this reduction (although, reducing the tax rate can, at the very least, stabilise the informal economy). The principal cause of this dilemma, as noted in Section 2.1, is based on the argument that exiting the informal economy is often difficult, as individuals who go into the sector when economic conditions are unfavourable do not often exit when the economic conditions improve or

the economy resumes growth (Spiro, 1993). Participants' unwillingness to leave the informal economy is a function of a number of factors: the high profits earned, personal relationships built, and social networks built, by the individuals due to their participation in informal activities (Schneider and Enste, 2000). In addition, evidence from previous studies tends to add to the tax rate-size of the informal economy dilemma. Evidence supporting this comes from a study of Austria, which suggests that the size of the informal economy did not experience a significant reduction despite a huge fall in the direct tax burden (Schneider, 1994b, 1998b).

Similarly, Joo (2011) argues that reducing the entry cost to the formal economy, rather than reductions in tax rates, should be the policy thrust for reducing the size of the informal economy. This assertion is underpinned by suggestions that a reduction in tax rates and the entry cost into the formal economy have contrasting effects on income distribution. Using a general equilibrium model with occupational choice and incomplete contract enforcement, Joo found in his study of the determinants of the informal economy and their effects on the Korean economy, that although the informal economy contracts when the tax rate is lowered, at the same time, it worsens income inequality. Thus, a decrease in the tax rate will lead to an increase in income inequality, and conversely, a decrease in entry cost will bring about a decrease in income inequality. However, both policies, reducing entry cost and tax rates, will lead to a decrease in the size of the informal economy (Joo, 2011). This contrasts with Schneider and Enste's position that a reduction in the tax rate does not cause a fall in the size of the informal economy.

Additionally, while the cost of entering the formal economy, payroll taxes, and incomplete financial contract enforcement tend not to be strong causal factors, they significantly determine the size of the informal economy (Joo, 2011). Similarly, Schneider (1994), Johnson *et al.* (1998a, 1998b), and Schneider and Enste (2000) report a strong impact of taxation on the size of the informal economy, and the amount earned in the formal economy on the number of hours spent in the informal economy. In particular, Johnson *et al.* (1998b) report a positive correlation between corporate tax burden and the size of the informal economy. Similarly, Schneider (1994b) and Schneider *et al.* (2010) found the quality of public goods and services, the burden of total direct and indirect taxation, regulation of the labour market, the complexity of the tax system, and the intensity of government regulations as the main factors responsible for the expansion of the informal economy.

In their contribution, Sookram and Watson (2008) argue that the perceived risk of detection by the tax authority, and not the tax rate itself, is what significantly influences individuals' decisions to participate or not to participate in the informal economy. They based their study on tax evasion and hypothesised that if economic units perceive their participation in the informal economy will not be detected by the regulatory authority, they will rather participate. Their findings, which were based on a sample of 1027 small businesses in Trinidad and Tobago, confirmed their hypothesis. Particularly, they found that individuals or businesses are less likely to participate in the informal economy if they perceive their risk of detection by the regulatory authority is high, and vice versa. Sookram and Watson also reported little or no importance for tax rates.

3.3 Social Security Burden and Social Transfers

Social security is one of the main reasons identified for participating in the informal economy. It is often argued that increases in social security contributions lead to an increase in the size of the informal economy (Schneider *et al.*, 2010; Schneider, 1994a, b; 2005; 2007). Generally, the enforcement of social security contributions increases the cost of labour and/or reduces the real wages of the employee. It increases the costs of production and reduces the profit margin to the employer if he is unable to shift the burden to the employee. However, if the cost of social security is successfully shifted by the employer, it reduces the actual wages of the employee. The channel of impact is twofold. On the one hand, if the cost of labour becomes too high and profit margins become too low, employers are forced to look for alternative ways of reducing costs, hence, they turn to the informal economy to drive down the cost of production in order to shore up their profit. On the other hand, if the effect of social security contributions is shifted to employees, they are forced to seek ways of earning extra income from the informal economy.

Closely related but opposite in effect to the social security contribution are social transfers. Social transfers have been found to drive growth of the informal economy. They create negative incentives to work in the official economy since beneficiaries' marginal tax rate is close to or equals 100%. Supported by empirical evidence (for example see Lemieux *et al.*, 1994; Schneider and Enste, 2000), the argument is that beneficiaries in a social welfare state receive more than enough income through transfers, and possibly, through their participation in the informal economy and hence, do not bother to look for jobs in the formal economy.

3.4 State of Public Services and Weak Institutions

The state of public services and the informal economy appear to relate in a circle, as the former is both a cause and an effect of the latter's activities. Generally, the capacity of the government to provide a large quantity and quality of public goods is reduced with falling tax revenues. This can lead to an expansion of the informal economy, as individuals operating in the formal economy will begin to take up activities in the informal economy (Schneider and Enste, 2000). Similarly, a relatively large informal economy reduces state revenue and its ability to provide public goods and services. Any attempt by the government to stem the tide by raising tax rates for individuals and firms operating in the formal economy will only exacerbate the economic situation. Particularly, in addition to the lower quality and quantity of public goods, it will provide incentives to those operating in the formal economy to move over to the informal economy.

Closely related are weak institutions. Becker (2004, pg. 11) notes, the "weak capability of formal institutions to provide education, training and infrastructure as well as other incentives for structural reforms has contributed to the growth of the informal economy." Thus, there are a large numbers of individuals without requisite skills, and a limited capacity by formal firms to absorb surplus labour, which has caused an expansion in the size of the informal economy. Particularly the inability of the formal economy to create and provide sufficient jobs for a growing unskilled-population has been the main cause of expansion in some countries' informal economy over the past three decades (for example, see Becker, 2004; Sethuraman, 1981). Thus, an explosion in population has led to an abundant labour supply which weak institutions and formal employment have been unable to accommodate. The result is that individuals have continued to seek alternative means of surviving, and the option readily available is the informal economy.

Additionally, Hart (2012) argues that the global economy and the world of money have become lawless, and now exist beyond the realm of public accountability. To put it in a broad, contemporary and thought provoking view, it is being argued that the banks, the corporations, the politicians and bureaucrats, like informal sector participants, now operate outside the regulations of the state, and have not been held accountable for their actions. This suggests that the state institutions and controls over the economy have become weak, and the consequence is the informalisation of the global economy.

3.5 Entry Barriers and Uncommitted Government

Another factor that has continued to be responsible for the expansion of the informal economy is entry barriers to the formal economy. This has manifested itself in a lot of ways. For example, individuals trying to start up businesses or obtain business licence/permits, and land titles, have had to confront such issues as excessive costs, government regulations, and corruption. As noted by Verick (2006) starting a new enterprise in the formal economy is very costly and time consuming. Using the World Bank doing business database, Verick shows that the process of establishing a new business in sub-Saharan Africa (SSA) takes over 63 days, costs about 215.3% of GNI per capita, and requires the completion of 11 procedures on average. This was the longest and most expensive of all regions.

Closely related is the licensing procedure in SSA. Licensing a business in the construction industry to build a standard warehouse for example requires the completion of 20.1 licensing procedures on average. These procedures include obtaining operating licenses and permits, completing notifications, inspections and submitting the necessary documents. In sum, the procedures involved in starting a new business constitute a cost, hence, a major barrier in the formalisation of informal enterprises. Simeon *et al.* (see Garcia-Bolivia, 2006), found a positive relationship between the size of the informal economy and the official procedures to start a business. Specifically, "informality was observed to be more pervasive in countries requiring entrepreneurs' compliance with a large number of procedures to start a business and in those in which the time and cost associated with business entry were high" (Garcia-Bolivia, 2006 pg. 6).

In addition, inadequate commitment from many governments has been identified as another factor which influences an expansion of the informal economy. The result is that the informal economy is left unattended since its potentials, contributions and problems are unknown to the government. Hence, no action is taken to intervene in the sector, albeit, many of these governments believe that the informal economy will die out as a passing phenomenon (Becker, 2004).

3.6 Time Allocation

In a pioneering work on the effect of time allocation, Becker (1965) (see Sookram and Watson, 2008) observes that the efficient allocation of time determines different occupations. This argument is underpinned by the fact that time is a scarce commodity

and has to be optimally distributed between work and leisure on the one hand, and between the informal sector and household-related work on the other. Similarly, there are multiple activities that can be carried out by individuals/firms, but the latter would have to do so within the space of time available to all economic agents. For example, individuals who have a formal employment can choose to combine it with activities in the informal economy, but can only do so if they have spare time from their formal job, and/or are willing to trade off their leisure time for these informal activities.

Attempts have been made to examine the relationship between time spent in the formal economy and participation in the informal economy (see Lemieux *et al.*, 1994; Schneider and Enste 2003; Sookram and Watson, 2008). However, empirical results do not support this hypothesis. Specifically, Lemieux *et al.* (1994) report a negative relationship between the formal economy and time spent in the informal economy, and Sookram and Watson (2008) report marginal evidence in favour of time spent in the formal and the informal economy of Trinidad and Tobago. Conversely, Schneider and Enste (2003) argue that there is a seamless movement of individuals between the two sectors.

3.7 Socioeconomic and Demographic Considerations

Knowing the socioeconomic and demographic makeup of participants in the informal economy is important as it further reveals the factors which influence the growth of the informal economy. The literature tends to suggest that the informal economy grows in sectors with certain conditions. Particularly, such socioeconomic factors as income and education level, skills acquired, training undergone, and demographic factors, such as age and sex have been found to affect the size of the informal economy (see Becker, 2004; Loayza, 1996). Similarly, it has been noted that sectors dominated with ease of employment, particularly employment without documentation, low-wage, low income, low-skills, and labour-intensive jobs, have a relatively larger share in the informal economy (Djankov *et al.*, 2003; Sookram and Watson, 2008). For example, Castells and Portes (1989), and ILO (2002) report the prevalence of the informal economy in manufacturing sectors, and Marcelli *et al.* (1999) and Losby and Edgcomb (2002) report a similar result for the construction sector.

Similarly, there appears to be a negative relationship between the income of individuals and the level of participation in the informal economy (Franicevic, 1999; Isachsen and Strom, 1985), and this is corroborated by Schneider *et al.* (2001) that lower income participants are relatively more engaged in the informal economy. Similarly, Portes *et al.*

(1986) observe that retirees in countries with inadequate pensions tend to participate in informal activities in order to maintain a certain level of income. Conversely, Giese and Hoffman (1999) report a positive relationship between rises in income and growth in the informal economy, whilst Christian (1994) notes that higher-income economic units will more likely evade taxes, and hence, participate in, informal activity.

Additionally, such demographic factors as sex and age are arguably important characteristics of the informal economy. For example, UN (2001) and Becker (2004) tend to suggest that the growing number of women going into the labour market have contributed to the growth of the informal economy. This is plausible as most of the women can only access the informal economy since they do not have the right to own property and land in some countries. Similarly, the kind of activities engaged in by participants in the informal economy appears to be split along gender lines. For example, it has been observed that more men than women participate in the sell side of the informal economy (Isachsen and Strom, 1985; Baldry, 1987; Giese and Hoffma, 1999), and more women than men participate in the informal economy as clientele (Sookram and Watson, 2008). Also, age is found to relate to participation in the informal economy, though the literature is inconclusive on the pattern of relationships (Anderson, 1998; Sookram and Watson, 2008). Finally, it has been noted that an individual's marital status (Anderson, 1998; Schneider *et al.*, 2001), level of education (Gallaway and Bernasek, 2002), area of residence (Portes and Sassen-Koob, 1987; Sassen-Koob, 1989), and number of dependents (Smith, 1987; Schneider *et al.*, 2001) have some level of influence over his/her participation in the informal economy.

3.8 Corruption

Corruption arises when a profiteer or public servant abuses the office s/he occupies for personal profit. It is arguably a main obstacle to the progress of an economy, as the latter's rule of law and institutional foundation are distorted and weakened by the former. Corruption is also believed to be very detrimental to a country's poor and disadvantaged citizens (World Bank, 2009). In particular, corruption creates illegitimacy to democratic institutions, distortions to markets and competition, misappropriation and inadequate use of scarce resources, and citizens' distrust for a country's political leaders and institutions (Transparency International, 2009; Buehn and Schneider, 2009). Corruption appears to be one of the key determinants of the informal economy, as argued in the early debates and evidenced by the number of studies conducted on the subject in the

literature (examples are Dobson and Ramlogan-Dobson, 2012, 2010; Andres and Ramlogan-Dobson, 2011; Schneider and Enste, 2000; Johnson *et al.*, 1998a; Schneider *et al.*, 2010; Hart 2012; Ferraira-Tiryaki, 2008; Choi and Thum, 2005; Dreher *et al.*, 2005). However, corruption's link with the informal economy is far from straightforward. Arguably, corruption can be good for the economy, as it reduces inequality in an economy with large informal sector. Conversely, high levels of corruption increase the size of the informal economy.

Schneider and Enste (2000) for example have observed that the size of a country's informal economy will be small if it is able to operate with limited corruption. The study then noted that the relatively large informal economy in transition countries is due to the fact that they have got high levels of regulation, which in itself, causes a high and significant incidence of bribery and corruption. For example, Johnson *et al.* (1998a) observe that wealthy countries have a relatively small informal economy because they have a relatively low burden of regulation, low taxes for formal economy participants, good and effective rule of law, large revenue, and corruption control mechanisms. Similarly, Hart (2012) argues that the global economy has been informalised due to the corruption of politicians, bankers, and corporations. Also, Ferraira-Tiryaki (2008) argues that the size of the informal economy increases with corruption, as entrepreneurs deliberately informalise in order to avoid the high costs associated with bureaucracy and corruption.

Conversely, Dobson and Ramlogan-Dobson (2012, 2010) and Andres and Ramlogan-Dobson (2011) do not consider corruption to be a drawback, and if anything, is beneficial to economies with large size of informal economy and weak institutions. Particularly, when looking at the direction of causality, these authors found that the presence of a large informal economy reduces the effect of corruption on inequality. Similarly, Choi and Thum (2005) and Dreher *et al.* (2005) argue that the informal economy reduces the levels of corruption. Specifically, Choi and Thum's (2005) model was designed to show how the bids to collect bribes from entrepreneurs in the official economy, as a matter of fact, pushes entrepreneurs from the formal economy to the informal economy. To avoid this, corrupt bureaucrats are forced to abide by the rules of not collecting bribe, as the informal economy grows whenever the rule is broken. Thus, the existence of the informal economy or the desire of government officials to stop the expansion of the informal economy mitigates corruption.

3.9 Migration

There are strong reasons to believe that a relationship exists between migration and the informal economy (see Xaba *et al.*, 2002; Fapohunda, 1981; Sethuraman, 1981; Perbedy, 1998; Verick, 2006; Abdulloev *et al.*, 2011). For example, Verick (2006) likens migration to FDI and argues that it has different effects on both source and receiving countries. Particularly, large flows of migrants can have significant effects on both the source and receiving countries' labour markets. In the receiving country, for instance, it may contribute to the growth of the informal economy as it makes labour available in large quantities and at low cost. However, the impact of migration on the economy is not as straightforward as the latter suggests, rather, it is multifaceted. Specifically, migrants can bring about both positive and negative effects on an economy's employment, production and growth (Ivakhnyuk, 2005). In the early debates, the informal economy and migration were seen as complements (see Fields, 1979; Sethuraman, 1981; Okojie, 1984; Gang and Gangopadhyay, 1987). By this thinking, the informal economy represents the starting point for migrants. In particular these migrants, upon arrival in the host country, engage in activities in the informal economy before they are able to secure formal sector employment.

An alternative view is that the relationship between migration and the informal economy can be one of substitution (Abdulloev *et al.*, 2011). As noted above, it is complementary if new migrants, at first, find it difficult getting formal jobs and start off in the informal economy. Conversely, it is more likely to be a substitute if new incomes earned by migrants from the informal economy are an imperfect trade-off with the earned income from their home informal economy. When this is the case, the informal economy and migration become viable options for the household, as both the informal economy and migration effectively become substitutes for each other.

Generally, two kinds of migrant have been identified; legal or documented, and illegal or undocumented. It has been observed that undocumented migrants often end up in the informal economy, but their overall impact on the economy remains ambiguous. For example, Verick (2006) observes that most immigrants are illegal and are readily available to exploit and be exploited in the informal economy. However, Ivakhnyuk (2005) argues that illegal immigrants may provide cheap labour to informal firms, produce and provide cheap goods to the society at large, but they create gaps in the state revenue base. Specifically, the state experiences a loss in revenue as it is not able

to collect taxes from illegal immigrants, and this in particular causes informality and criminality to increase in the state. For their part, Maroukis *et al.* (2011, pg. 130) note that, undocumented migrants do not have rights, and are “trapped in low-status, low-paid, heavy, informally negotiated and conducted jobs”. This is plausible considering the fact that irregular migrants do not have the right to take up formal employment in their domiciled countries. They are regarded as a reserved army and destitute, trying to make ends meet on the margins of society.

Yet, it is on record that some irregular migrants find themselves in positions where they earn more income than registered workers, and their family members have access to the same education, health services and other facilities that legal citizens have access to (Fasani, 2010; Gonzalez-Enriquez, 2010; Maroukis *et al.*, 2011). Similarly, illegal migrants over time are able to change their status in the labour market and general plan for life. This contrasts the dominant thought in the literature. In particular, it is often argued that irregular migrants are trapped at the margins of society (Maroukis *et al.*, 2011), cheap and easy to hire and fire by employers, as workers of such status are not covered by labour and union laws (Ferraira-Tiryaki, 2008). Similarly Ivakhnyuk (2005) observes that this exploitative practice enables firms and employers of labour in the informal economy to remain competitive.

Again, it is argued that the illegal migrants are attractive to the informal economy due to the business nature of some employers, who use the former to carry out their nefarious activities. For instance, firms producing inferior goods, and transacting in drugs and illegal goods, are likely to have a preference for illegal immigrants, both in the production and distribution of their products. Thus, the informal economy sometimes experiences high level of illegal labour, non-existence of contract jobs, and a large number of illegal migrants who are able to work without possessing work-documents or permission to stay in the receiving country. This underpins the reason employers consciously and deliberately exploit the vulnerability of illegal migrants; over-exploit them, pay them low wages, and do not exercise any form of formal obligation to them.

Finally, it appears that firms also employ illegal immigrants for bureaucratic reasons, as the procedures to register and employ legal migrants are cumbersome and difficult to adhere to (see Ivakhnyuk, 2005). Hence, to avoid time-wasting and the cost of adhering to the bureaucratic process for employing legal migrants, employers take the easier route of employing illegal immigrants.

3.10 Foreign Direct Investment

Foreign direct investment (FDI) appears to be one of the determinants of the informal economy. Generally, FDI flows are key determinants of economic growth. However, the pattern and content of FDI can either increase or decrease the size of the informal economy (Chaudhuri and Mukhopadhyay, 2009; Feenstra and Hanson, 1997). For example, it has been argued (see Chaudhuri and Mukhopadhyay, 2009) that employment and wages would be positively affected if FDI flows to labour-intensive sectors. The opposite is also true; that is, if FDI flows to capital intensive sectors, fewer jobs are created. Particularly, in the latter scenario, the active labour force that could have been employed by these capital-intensive firms will find their way into the informal economy, especially if they are not able to find other, formal, jobs.

Another factor to be considered when discussing the effects of FDI on informal employment is the type of linkages investment has with other sectors. Specifically, in carrying out their investment activities in sectors that have a high level of backward integration with suppliers, a foreign company may decide to use the informal economy in order to have a flexible and low cost of operations. This arrangement will lead to a significant increase in informal employment. Conversely, FDI can lead to growth in employment in the formal sector if, the foreign company, in a bid to observing foreign investment regulations, and/or cutting down risks and uncertainties, decides to sub-contract to domestic enterprises in the formal sector (Verick, 2006).

3.11 Structural Adjustment Programmes (SAP)

According to Hart (2012, pg. 2) "The post-war boom began to come unstuck around 1970. By the end of that decade, neoliberal conservatives were installed in power throughout the West. Their slogan was the free market and in the 1980s, with the active support of the IMF and World Bank, they set about dismantling state restrictions on the international flow of money in the name of "structural adjustment", at first in the developing countries. This was the context in which the "informal economy" emerged, not only as a description of the Third World urban poor, but as a universal feature of modern economies". This quote and the writings of many others (see Sethuraman, 1981; Dike 1992; Meagher and Yunusa, 1996) underscore the role of SAP in the origin and expansion of the informal economy. The SAP by its nature, objectives and modus

operandi, created many redundant workers in every country where it was implemented, and the natural destination of these displaced workers is the informal economy.

The role of SAP in expanding the size of the informal economy is not surprising as its policies are characterised by caps on wages, mass retrenchment of public and private sector workers, successive and sharp currency devaluation, and underemployment and disguised unemployment of the workforce. Evidently, there was a decline in the overall conditions of, and capacity to employ and/or retain a good number of employees by, the formal economy, which clearly explains the growth in the informal economy (see Meagher and Yunusa, 1996). In particular, Akande and Akerele (2008, pg. 2) observes that "the failure of modern urban industries to generate a significant number of employment opportunities is one of the most obvious failures of the development process over the past five decades in Nigeria. The public sector has also not been particularly helpful in terms of employment generation, due largely to dwindling public sector revenue and the various reform measures that have led to downsizing and retrenchment". Hence, Dike, (1992; see Meagher and Yunusa, 1996) for example, notes that within the space of seven years, 1985 to 1992, the successive devaluations of the Nigerian currency, the naira, led to a massive fall from N1.2 (Nigerian naira) to US\$1 (US dollar) to N19 to US\$1. For the same period, prices of domestic and imported goods increased fivefold and twentyfold respectively; the weight of the massive retrenchment led to the alteration of the unemployment composition as many graduates and professionals became unemployed.

Similarly, Birks and Sinclair (see Meagher and Yunusa, 1996) have noted a significant fall in the real wages of those lucky enough to be in employment. For example, the 1987 real wages of public sector workers, when compared with 1975 values, were 37% and 20% for lowest ranks and middle class workers respectively. These categories of workers/individuals are further put under pressure by declining social services expenditure. The way forward for them is to engage in activities in the informal economy in order to survive. Further, it appears the Nigerian government had anticipated that the informal economy will be able to accommodate the fallout from the introduction of SAP as its policy response suggests. For example, some institutions including, the people's bank, and National Directorate of Employment (NDE) were established to provide credit and training for workers displaced from their formal jobs.

3.12 Globalisation and Demand for Low-cost Goods

Globalisation appears to have contributed to the growth of the informal economy as it arguably affects the structure and allocation of resources in an economy (Verick, 2006). One of these impacts is in the export and use of capital-intensive means of production in relatively labour abundant states. This has created a situation where there is an abundant labour supply which the formal economy does not have the capacity to absorb. As expected, the excess labour has induced growth in the informal economy as the labour active individuals who cannot find formal jobs find their way into the former (see Chaudhuri and Mukhopadhyay, 2009). Similarly, globalisation has made the mobility of factors of production, goods and services possible and easy; hence, available in abundant supply are low cost goods and services which are accessible locally and across borders, albeit in abundant supply in the informal economy.

Further, consumers patronise the informal economy as it offers the cheapest goods and services which are readily available in some countries. In a similar way, firms seek to maximise profit; they employ informal workers and patronise the informal economy in order to drive down costs of production. Evidence abounds of the patronage of small-informal firms by large-formal firms or corporations (see Becker 2004; Akande and Akerele, 2008; Neuwirth, 2011). This is summed up in Akande and Akerele (2008 pg. 11-12) who have documented the argument of economists who “claim that the low cost service provided by the informal sector enables modern industries and export-oriented activities in developing countries to obtain supplies at minimal costs, continue to pay low wages and, thereby, remain competitive”.

Conclusion

This chapter has discussed the determinants of the informal economy. Several factors which influence the size of the informal economy were reviewed. In particular, government regulations, tax burden and evasion, social security burden, state of public services and weak institutions, entry barriers and uncommitted government, time allocation, socioeconomic and demographic factors were among the determinants of the informal economy discussed in this chapter. The other determinants of the informal economy which were reviewed are corruption, migration, foreign direct investment (FDI), structural adjustment programme (SAP), and globalisation and demand for low-cost goods and services.

In Chapter 4, the aim is to build on what has been done in this chapter by reviewing the impact of the informal economy. Particularly, I shall utilise evidence from the literature to show how these determinants have captured the relationship between the informal economy and the overall economy.

Chapter Four The Impact of the Informal Economy

4.0 Background

I have presented in Chapter 2, the origin and theories of the informal economy, and in Chapter 3, the determinants of the informal economy. This chapter focuses on the impacts, particularly, the micro and macro evidence of the determinants and impacts of the informal economy. To begin, the neoclassical leisure-income model of microeconomic theory which has been used to explain the causes and growth of the informal economy (see Schneider and Enste, 2000; Thomas, 1992) is reviewed. This is followed by a review of the characteristics of informal participants, and informal entrepreneurship under micro evidence. Thereafter, the macroeconomic theory of growth which has been used to explain the determinants and effects of the informal economy (see Loayza, 1996, 1997) is reviewed. Then, macro evidence examines the relationship between the informal economy and key macroeconomic variables. Finally, other evidence which do not follow the micro-macro dichotomy are examined. The chapter ends with a brief conclusion.

Again, as noted in the background to Chapter 3, the IFS, in addition to the four circles which depict the main theories of the informal economy (4Cs) (also to be discussed in detail in Chapter 5), clearly close the gap between Chapter 2, the sections on the theories of the informal economy, and the current chapter. The justification for separating the elements of the macro and micro evidence, rather than discussing them under the theories of the informal economy, is to avoid repetition, as most of these elements/factors run through the four main theories.

4.1 Micro Evidence

Neck *et al.* (1989) developed the microeconomic approach in their study of the factors that determine household supply of labour to, and demand of goods from, the informal economy. The study reports a positive relationship between marginal tax rate and the size of the informal economy. Also reported is a negative relationship between the informal economy and the wage rate in the formal economy. Specifically, it was found that the informal economy grows when there is high marginal tax rate in the formal economy, but a high wage rate in the formal economy causes the informal economy to

shrink. Generally, when there are high marginal tax rates in the formal economy, individuals will prefer to supply labour to the informal economy. It follows also that a high wage rate in the formal economy stimulates labour supply to the formal economy but discourages individuals from supplying labour to the informal economy.

Additionally, Neck *et al.* show that formal firms' respective demand and supply of labour and goods in the informal economy is a positive function of the formal economy's rates of indirect taxes and wages. Thus, in a partial equilibrium analysis, the lower (higher) the marginal and indirect tax rates, the lower (higher) the quantity of goods bought and sold in the informal economy, *ceteris paribus*. For its part, the effect of changes in the official wage rate on the equilibrium quantity of informal labour is not as straightforward, as it could either be positive or negative, depending on the dominance of demand or supply. Arguably, the informal economy's labour and goods equilibrium quantity is also influenced by other factors that are partially under government control, such as, penalty rates on, and probabilities of detection of, tax evasion. However, Neck *et al.*'s theory has been critiqued on the basis of its assumptions, for ignoring the possible differences in the way individuals and firms would react to labour supply in the economy, and for presenting a very simple equilibrium analysis (see Schneider and Enste, 2000).

In a different study, Thomas (1992) observes that a high marginal tax rate causes substitution effects and distorts labour-leisure decisions (see Section 3.2 for detailed discussion of this). Evidently, tax rates are a main determinant of the informal economy (see Joo, 2011; Schneider, 2005; Giles and Johnson, 2000; Johnson *et al.*, 1998a, 1998b; Schneider, 1994b). For example, Joo (2011) argues that a decrease in tax rates will lead to a decrease in the size of the informal economy, although, he does not recommend tax rates' reduction as a policy thrust. Instead, as explained in Section 3.2, the author has preference for reducing entry costs to the formal sector; a policy-thrust, which guarantees both decreases in income inequality and the size of the informal economy. Additionally, Joo reports no evidence of Laffer curve effects when tax rates are reduced and tax base broadened; (the Laffer Curve theory states that any increase in marginal tax rate, when the tax rate is already too high, results in a decrease in tax revenue) hence, the only contention with using a reduction in the tax rates as a policy strategy for reducing the size of the informal economy is due to its income-inequality inducing effects. Lowering the cost of entry into the formal economy is very appealing as a policy strategy, as it not only reduces the size of the informal economy, but also assists in increasing tax revenue (Joo, 2011). In contrast, the result of Lemieux *et al.*'s (1994) study of Quebec City, Canada tends to support the Laffer Curve theory.

Another aspect of the microeconomic theory of the informal economy is based on rational expectations, which states that every economic agent is out to maximise benefit and minimise cost. As expected, the economic agent avoids obstacles to business, and anything that would increase cost (Garcia-Bolivia, 2006), and at the same time, s/he embraces anything that would enhance profit. One strategy employed by firms to avoid cost is by subcontracting some aspects of their operations to the informal economy. Empirical evidence suggests that this has become a global practice since the proliferation of multinational companies (see Andrei *et al.*, 2011; Verick, 2006). Particularly, some (see examples Bureau and Fendt, 2011; Bajada, 2005; Portes 1989) have reported a positive interaction between the formal and informal economies through subcontracting, as the latter was found to be a common practice among large and small firms, individuals and entrepreneurs.

In their contribution to the microeconomic theory of the informal economy, Schneider and Enste (2000) investigate the effects of the complex tax system on the size of the informal economy. They argue that complex income tax systems provide loopholes for tax avoidance, and find a negative relationship in their empirical result. Typically, complex income tax systems give incentives to household to participate in the informal economy. The study also analysed the "effects of changing tax systems and structures on the development of the Austrian shadow economy" (Schneider and Enste, 2000, pg. 19). However, the size of the informal economy after Austria's tax system was simplified did not justify the argument put forward by these authors. In particular, Schneider (1994b, 1998b) reports that the size of the informal economy did not significantly reduce in response to a major reduction in the direct tax burden in his study of the Austrian informal economy.

Finally, in the next two sub-sections, I shall, respectively, discuss the features of informal participants and the informal economy, and informal entrepreneurship and microenterprises using micro evidence. The informal economy is dominated by largely self-employed individuals (see ILO, 2002b; Becker 2004; Gurtoo, 2009); studying their characteristics and entrepreneurial qualities must necessarily follow a micro-approach. Also, informal entrepreneurship is treated as a micro concept (see Webb *et al.*, 2009; Gurtoo, 2009), as being an entrepreneur describes the attributes of an individual. Additionally, the direct methods or micro-techniques are often employed in investigating the characteristics of informal participants or/and the informal economy (see, Schneider, 2002; Schneider *et al.*, 2010). Thus, discussing these points under the micro evidence-category is justifiable.

4.1.1 Features of Participants and the Informal Economy

The informal economy has been defined with references to different characteristics; the individuals working in the sector require little or no formal training, low skills and are employed without any form of employment contract or protection. In relative terms, there is a higher proportion of women, and self-employed in the informal economy. It is also characterised by participants' relatively low level of education, low wages, high level of poverty, and longer hours of working. For example, Braude's (2005) report on South Africa as noted by Verick (2006) shows that a significant difference exists between the formal and informal economies, as 37% of participants in the informal economy, in contrast to formal economy's 16%, had no primary education.

Similarly, evidence of high wage differentials between formal and informal workers has been reported (see for example, ILO, 2002; El-Mahdi and Amer, 2005; Verick, 2006). In Egypt for example, ILO (2002a) found informal workers' wages to be 44% lower on average than their formal sectors' counterparts. There tends to be a correlation between the high level of poverty among participants in the informal economy, and the huge wage-gap between informal and formal workers. There is, however, uncertainty as to which causes the which; does working in the informal economy makes one poor or is it poverty that makes people engage in informal activities? These are some of the questions that have remained unanswered in the literature.

However, Williams and Nadin (2010) report a prevalence of more informal entrepreneurs among the lowest and highest income groups in society. Although, informal entrepreneurs in the highest income brackets are likely to conduct only part of their activities in the informal economy, lowest income-level informal entrepreneurs are likely to conduct all their business activities in the informal economy. Again, lowest-income informal entrepreneurs are likely to be found doing lower paid forms of informal activities, as they are likely to lack any formal occupation. The highest-income informal entrepreneurs on the other hand are found to be in formal employment when they set-up their businesses.

The evidence indicates informal firms are relatively small, require low capital per worker, use unsophisticated technologies and wage workers who are usually employed "without contracts and protection", and there is "limited sharing of the property of the means of production" (Tokman, 2001, pg. 2). Specifically, Becker (2004) and Verick (2006) note, in an informal enterprise report on Africa, that the informal enterprise is relatively

associated with small scale operations and few workers, trade related activities, the required skills for informal business activities usually gained outside of formal education, low entry requirements and set-up costs, and labour-intensive means of production and distribution of goods and services. The fact that activities in the informal economy are relatively labour-intensive probably explains why a relatively high proportion of economic activities in the informal economy are service-rendering and trade related, especially street vending in Africa. In fact, manufactures account for just a small percentage of the informal sector's activities (see, Verick, 2006; ILO 2002a; Charmes 1998a; UN, 1996). Particularly, the ILO reports an active retail trading for the majority of those who participate in the informal economy in Angola, Nigeria and South Africa.

Similarly, Akande and Akerele (2008) found in their study that the Nigerian informal economy was dominated by sole proprietorship. Charmes (1998a) found about 80% of all economic units surveyed in Benin Republic's urban area to be street vendors. Conversely, the formal economy is characterised by relatively capital-intensive means of production and distribution, high start-up and running costs, and a high level of bureaucracy (examples of this have been discussed in Section 3.5). The cumbersome process and costs are, suggestively, responsible for a growing informal economy. For example, it has been reported that a 1 percentage point rise in the cost of registering an enterprise would lead to a 0.6 percentage point rise in the size of the informal economy (see Verick, 2006). In sum, the procedures involved in starting a new business constitute a cost, hence, a major barrier in the formalisation of informal enterprises.

4.1.2 Informal Entrepreneurship and Microenterprises

The discussion in this section shall draw extensively from the major writings that tend to promote the concept of informal entrepreneurship/microenterprises: Williams (2004, 2005, 2006, 2008, 2010), Williams and Round (2007), Round and Williams (2008), Williams and Nadin (2010), Gurtoo and Williams (2009), De Soto (1989, 2000, 2001), Gurtoo (2009), Losby *et al.* (2002), ILO (2002a) and several others. The concept of informal entrepreneurship is new, but is receiving increasing attention in the literature, and rightly so. This development is underpinned by the following factors: the link which tends to exist between the services rendered by microenterprises and the informal economy (Losby *et al.*, 2002), and the self-employed participants who have displayed real entrepreneurial qualities in the informal economy (see Browne, 2004; Cross, 2000; de Seto, 1989, 2001; ILO, 2002a; Williams and Nadin, 2010). For example, the global working population is put at 3 billion and three-fifths of that figure, that is 1.8 billion

people, is estimated to currently operate in the informal economy (Jutting and Laiglesia, 2009; Bahra and Galey, 2009), and a very high proportion of this number operates on an own-account basis. Specifically, the proportion of self-employed operating in the informal economy is over 60% in sub-Saharan African (SSA) and North African countries (ILO, 2002b; Becker 2004). Similar results have been reported for Asia and Latin American countries (ibid).

It is not surprising that the informal economy is increasingly being recognised as a small-scale entrepreneurial sector. Participants in the informal economy may engage in all kinds of activities, at different levels, sizes, and at different degrees of legitimacy, but at the same time, they display such entrepreneurial traits and attributes as: innovativeness, autonomy, ability to identify opportunities, determination, creativity, dynamism and risk-taking (Bouchard and Dion, 2009; Frith and McElwee, 2008, 2009; Friman, 2001; Smith and Christou, 2009; Williams and Nadin, 2010). Interestingly too, economic units may engage in the informal economy for various reasons but in most cases, it arises from the latter's desire and decisions to become self-employed and avoid the high cost of labour, burden of taxation, corruption and bureaucratic costs (see Ferraira-Tiryaki, 2008) and burden of state overregulation (De Soto, 1989; Sauvy, 1984).

Generally, the concept of informal entrepreneurship has been defined in various ways, but the dominant definition is that which combines the different definitions of the informal economy and the entrepreneur. An entrepreneur is someone who is practically engaged in the starting up of a business that is less than 42 months old, or someone who manages or owns a business of a similar age (Harding *et al.*, 2006; Reynolds *et al.*, 2002). The informal economy is defined as legitimate goods and services produced and distributed but are hidden from regulatory authorities hence, are unregistered for tax and/or benefit purposes (European Commission, 1998; Evans *et al.*, 2006; Katungi *et al.*, 2006; Renooy *et al.*, 2004; Webb *et al.*, 2009). Informal entrepreneurship is therefore defined as the active engagement in starting a business by someone, or the owner or manager of a business less than 42 months-old, who participates in producing and selling legitimate but unregistered goods, which deceptively are hidden from regulatory authorities for tax and/or benefit purposes. From the definition, it is clear that the informal entrepreneurs are only different from formal entrepreneurs in the sense of registration of goods or services, and by implication, activities that fall under the wider criminal economy like dealings in human trafficking and drugs do not come under informal economy (Williams, 2006a, 2007a; Williams and Nadin, 2010).

Contrasting the early view of informal work and the informal economy, the burgeoning informal entrepreneurship literature has paved way for the emergence of new and positive concepts. For example, such concepts as hidden enterprise culture (De Soto, 1989; Smallbone and Welter, 2001; Williams, 2006a, 2007d, 2010; Williams and Winebank, 2006), and incubator for business potential (ILO 2002a) have recently emerged to describe informal work. Similarly, informal workers, who are largely self-employed, are now seen as happy to do their jobs, confident about their jobs, and are unlikely to access a formal welfare scheme, which significantly contrasts with the earlier survivalist label (Gurtoo, 2009). In addition, it is increasingly agreed by both researchers and policy makers that the informal economy has a large number of entrepreneurs, and that informal enterprises can make a significant contribution to the growth of an economy if they are formalised (ILO, 2002a; Renooy *et al.*, 2004; Small Business Council, 2004; Williams, 2004, 2006; Williams and Round, 2007), which drastically contrasts the earliest parasitic label (Gallin, 2001; Ross 2001). Thus, emphasis has shifted to recognising, harnessing, and formalising the enterprise and entrepreneurial nature of the informal economy.

Also related is the gradual moving away from the theory that the informal economy should be discouraged because it is exploitative and characterised by “sweatshop-like” types of wage employment, towards the theory that the informal economy is an “important platform for enterprise creation and development” (Williams and Round, 2007 pg. 120). This is revolutionary as it suggests the informal economy is capable of developing entrepreneurs who potentially can transit to the formal economy and make positive contributions to the economy.

However, Williams and Nadin (2010) have made a strong case that different theorisation may be required in different cases as studies have shown varying socio-spatial distribution of informal entrepreneurship, informal entrepreneurs’ characteristics, and rationale for their participation in informal activities. In addition, they make the case for the redefinition of states thought to lack in entrepreneurial spirit as in fact, they actually have more entrepreneurs than currently recognised. William and Nadin conclude that the way to economic development and enterprise promotion in such populations lies in legalising the hidden enterprise culture.

4.1.2.1 Motives of informal entrepreneurs

The discussions on the motives for informal entrepreneurship appear to follow the same root as those of entrepreneurship, which is based either on need or opportunity (Williams and Nadin, 2010). According to the early debates, informal entrepreneurs are motivated by necessity, adopting a last resort strategy (Castells and Portes, 1989; Gallin, 2001; Sassen, 1997) hence, it was described as involuntary, forced, reluctant, or survivalist (Boyle, 1994; Hughes, 2006; Singh and De Noble, 2003; Travers, 2002). This early debate, according to Williams and Nadin (2010), was based on assumptions and not empirically tested results. Conversely, there is new thinking which states that informal entrepreneurship is based on choice. In particular, the new school of thought argues that individuals engage in informal activities because of the relative “autonomy, flexibility, and freedom” (Gerxhani, 2004, pg. 6) they enjoy in the sector over the formal economy. For example, Snyder (2004) reports in her study of 50 informal entrepreneurs in New York City’s East Village, that informal entrepreneurs carry out their activities on the basis of choice as they want to reinvent their careers, reinvent, in terms of work, their identity or show their true-self-identity. Also, Cross (1977, 2000) reports similar results in his study of Latin American street vendors.

4.1.2.2 Theory of informal entrepreneurship

Different theories explain the concept of informal entrepreneurship, one of which is that the activities of transition economies have facilitated the growth of informal entrepreneurship. For example, in transition economies, public sector workers are given unpaid administrative leave, and without redundancy to enable them set up and/or operate small-scale informal enterprises in order to generate extra income for themselves (Malle, 1996; Williams and Round, 2007). Other theories of informal entrepreneurship are the modernisation, structuralist, neo-liberal, and post-structuralist theories. The modernisation theory argues that an important characteristic of an underdeveloped, traditional and backward economy is the presence of informal entrepreneurs. Conversely, an advancing, progressing and developing economy is known by the presence of formal entrepreneurs (Geertz, 1963; Gilbert, 1998; Lewis, 1959; Packard, 2007). However, the modernisation theory has been refuted by some (see, for example, Williams and Nadin, 2010, pg. 369), who argue that informal entrepreneurship is “extensive, enduring and expanding in many global regions”.

For their part, the structuralists view informal entrepreneurs as “unwilling and unfortunate pawns in an exploitative global economic system, cast out into the informal economy because of their inability to find formal work” (Williams and Nadin, 2010, pg. 369). A neo-liberal perspective sees informal entrepreneurs as heroes who reject the bureaucratic shackles of too much regulation of the market (De Soto, 1989), and instead choose to engage in informal employment in order to avoid the costs, time and effort of formal registration (Biles, 2009; De Soto, 1989, 2001; Perry and Maloney, 2007; Small Business Council, 2004). Finally, the Post-structuralist perspective is based on the fact that informal entrepreneurship is conducted and pursued for several reasons. It is carried out to enhance close social relations and ties such as kin, neighbours, friends and acquaintances (Williams, 2004), and to pursue social and redistributive purposes in contrast to purely financial gains (Persson and Malmer, 2006; Round and Williams, 2008; Williams, 2004). The post-structuralists also think that informal entrepreneurship is conducted and pursued to resist some exploitative and anti-social practices such as corruption, bribes, and the exploitation of workers in the neo-liberal global economic system, which can be part of the formal economy (Biles, 2009; Kudva, 2009; Whitson, 2007), and to provide an alternative environment where individuals can transform their work identity or reveal their true selves, by setting up informal lifestyle businesses (Snyder, 2004).

4.1.2.3 Some empirical results

Empirical results proceeding from the study of informal entrepreneurship suggest that a significant number of entrepreneurs participate in the informal economy either wholly or partially (see Williams and Round, 2007; Williams and Nadin, 2010; Gurtoo and Williams, 2009; De Soto, 1989, 2000; ILO, 2002). For example, in a study of Ukraine, Williams and Round (2007) sampled 600 respondents who were owners of businesses and found about 55% to be entrepreneurs. In addition, the results of the study show that 90% of the entrepreneurs operated in the informal economy, either fully (51%) or partly (39%). Thus, only 10% of the entrepreneurs were found to be operating their businesses on a fully-legitimate basis. Also, in a respective sample of 91 and 81 entrepreneurs in England and Moscow, it has been reported that about 100% of entrepreneurs in Russia, and 77% in England, were partly or wholly carrying out their businesses in the informal economy (Williams, 2008a).

Similarly, Gurtoo (2009) observes that the results of a survey carried out in India in 2006-7 show a large number of self-employed and microenterprise who carry out their

business activities in the informal economy, particularly, these economic agents used opportunities in the informal economy for growth. In addition, Gurtoo reports in his study of Ukraine a large number of entrepreneurs in the informal sector, as about 45% of the sample surveyed was found to be self-employed. The study also reports a significant difference in the income of micro enterprise owners and informal wage workers. Relatively, a significant difference also exists in attitudes, as owners, in contrast to the informal wage workers, are happy to work in their profession, had less concern about lack of alternative jobs, and were confident that the earnings from their enterprise would keep up with inflation.

However, a very disturbing aspect of the informal enterprises' results is that most of these enterprises do not often outlive five to six years due to extreme vulnerability to socio-economic changes (Baldwin, 2001; Audet and St-Jean, 2007; Gurtoo, 2009). Reasons for this vulnerability have been listed by Gurtoo (2009) as low levels and scale of organisational operations, over-reliance on daily profit for survival, inadequate operation space, lack of or minimal separation of labour from capital (ILO, 2002, 2006; Bhalotra, 2002); lack of separation of enterprise from owners or households (Chen, 2006; Nand, 2006; Williams, 2005); little or no legal establishment of business transactions in the informal economy which makes them unpredictable and highly personalised. Again, instead of contract arrangements, informal labour relations are based on casual employment or kinship, hence, workers lack social security and government protection as minimum wage requirements are not followed. It could be argued that none of these disturbing attributes is unexpected, and probably explains the state's negative attitude towards the informal economy. However, considering the important role the informal economy arguably plays in the economy, it is important to point out these attributes in order for solutions to be proffered to them.

Generally, proponents of informal entrepreneurship tend to refute some of the theories of the informal economy. In particular, they tend to refute the marginalised-population argument of the dualist theory, and the subordinate-economic units argument of the structuralist theory (see, Gurtoo, 2009; Chaudhari and Banerjee, 2007; Nelson and Brujin, 2005; Tokman, 1978; Moser, 1978). Specifically, studies of developed countries, (for example see Williams, 2006; Round and Williams, 2008; Jones and Spicer, 2005; Evans *et al.*, 2006; Small Business Council, 2004) have questioned the dualist and structuralist theories by reporting results which show that the informal economy is the home for many budding entrepreneurs and an incubator for business potential. Similarly, results from developing countries corroborate the arguments of this new school of

thought. For example, hidden enterprise culture was found in the Indian informal economy (Gurtoo, 2009). The author observes that "individuals who have a business orientation as they assume risk, provide management to the business, are innovative and growth oriented and emotionally attached to their work" (Gurtoo, 2009 pg. 4).

Also, in a Ukraine study, it was found that informal work was not more prevalent among marginalised groups, unemployed or deprived populations (see Williams and Round, 2007; Williams and Nadin, 2010). In particular results show that over half of own-business start-ups were in formal jobs, hence corroborating earlier studies that refute the marginal theory as a basis for participation in the informal economy in western economies (see for example, Jensen *et al.*, 1995; van Geuns *et al.*, 1987; Renooy, 1990; Williams, 2005) and transition countries (see Rosser *et al.*, 2000; Wallace and Latcheva, 2006; Williams and Round, 2007). It also provides support for the argument that people engage in the informal economy by choice, and reinforces the theory that the informal economy is the seedbed for the entrepreneur (see, Guarigila and Kim, 2006; Williams and Round, 2007). Effectively, most of the informal sector participants are entrepreneurs who have consciously chosen their mode and sector of operation. This is important in terms of policy. First, the results show that people participate in informal activities not because there is no alternative but they choose to do so and may not do any other jobs even when they are available. Secondly, it reinforces the call for a change of government welfare or survivalists attitude towards informal participants (Gurtoo, 2009), as such policy attitudes do not enhance growth of informal entrepreneurship or entrepreneurial endeavour.

4.2 Macro Evidence

This section examines the relationship between macroeconomic variables and the informal economy. It begins with a brief presentation of the macroeconomic theory put forth by Loayza in 1996 and 1997. In his work on fourteen Latin American countries, Loayza used a simple "endogenous growth model whose production technology depends essentially on congestable public services" (Loayza 1997, pg. 30) to study the determinants and effects of the informal economy. His argument is that excessive taxes and regulations imposed but unenforced by the government are the cause of the informal economy. His results show that the size of the informal economy positively relates to proxies for tax burden and labour market restrictions, but negatively relates to the proxy for the quality of the institutions of government. The study also finds that an

expanding informal economy hurts growth as it reduces the public services available to everyone and increases the number of activities using some public services less efficiently. The macroeconomic method has been critiqued by Schneider and Enste (2000), who argue that the method does not show important characteristics of the informal economy. However, the authors concede that macroeconomic analyses are still important to the study of the informal economy as they show statistical and causal relationships.

Apart from the different arguments in the literature about the causes and determinants of the informal economy, which this study has summed up in the 4Cs and IFS concepts, the other overarching aim of the theories of the informal economy is to analyse the effects of the informal economy on the overall economy. While some argue that the effect is negative (e.g., the dualist), others argue that some beneficial effects are derivable (e.g., the structuralist, the realist). Meanwhile, the channels of transmission of these effects, positive or negative, to the general economy are the IFS. The subsections following aim to explore this relationship. Specifically, they aim to examine the relationships between the informal economy and key macroeconomic variables, and by implication, how these key actors, IFS, are affected by the activities of the informal economy.

4.2.1 Economic Growth

The debate about the effect of the informal economy on growth has continued in the literature as divergent results have been reported. While some (for example see De Soto, 1989; Thomas, 1992; Loayza, 1996; Kaufmann and Kaliberda, 1996; Johnson *et al.*, 1999; Friedman *et al.*, 2000; Dell'Anno, 2003; Dell'Anno *et al.*, 2007) observe a countercyclical relationship between the informal and rest of the economy, others (for example see Bhattacharyya, 1999; Enste, 2003) claim a procyclical relationship. Procyclicality is arguably based on the theory that the informal economy increases its stock of capital more swiftly than the formal, hence it plays an active role in the process of economic development, and often outpaces the growth of the formal economy (Gang and Gangopadhyay, 1990). For example, Xaba *et al.* (2002) observe in their study of sub-Saharan African (SSA) countries, using secondary data, that the informal economy in most instances plays a far more significant role in the economy than the formal. This according to them is shown in the GDP data which also confirms the fact that the informal economy makes important contributions to economic growth. Similarly, Moser

(1978) has shown in his Kenyan study that in addition to creating jobs, the informal economy contributes significantly to the growth of the Kenyan economy.

Also, Adam and Ginsburgh (1985), under the assumption of low probability of enforcement, Bhattacharyya (1999) in a UK study, and Enste's (2003) study on transition countries, report a positive relationship between growth of the informal and formal economy. Particularly, it has been reported that the informal economy provides the incentives to developing an entrepreneurial spirit (Enste 2003), and enhances efficient use of resources and economic growth through stimulation of competition and increase in tax revenue respectively (Schneider 2003 and 2005). Similarly, Dell'Anno (2008) reports evidence of procyclicality in his analysis of the relationship between the unofficial [informal] economy and official [formal] GDP of 19 Latin American and Caribbean countries using panel data methods. Dell'Anno concludes that the results of his study support the theory that the formal and informal economies are complements, rather than substitutes, in Latin American countries; hence, the unofficial [informal] economy is beneficial as it sustains economic growth. Finally, Fiess *et al.* (2008) report procyclical behaviour across some periods in Latin American countries, whilst Bosch and Maloney (2008 pg. 3) report a similar result for Brazil and Mexico, as they found that the "flows from formality into informality are not countercyclical, but, if anything, procyclical".

Conversely, the counter cyclicity theory has its foundation in the argument that informal activities create unfair competition which interferes negatively with the market allocation of resources (Dell'Anno and Halicioglu, 2010). For example, Loayza's (1996) study on 14 Latin American countries, Eilat and Zinnes' (2000) study on 24 transition countries, and Kaufmann and Kaliberda's (1996) study on transition countries report a countercyclical relationship between growth in the informal and formal economies. Specifically, Loayza (1996) finds that a growing informal economy negatively affects economic growth as the former leads to a contraction in the availability of public services, while, at the same time, increases the less-efficient use of existing public services. For their part, Eilat and Zinnes (2000) associate a 31% expansion in the informal economy with a dollar decline in official GDP. Similarly, Kaufmann and Kaliberda (1996) report a 4% rise in the informal economy when official GDP experiences a cumulative decline of 10%. In addition, Loayza and Rigolini (2006, pg.1) report countercyclicity for a majority of countries in the short run but lower degrees of it in countries with higher "informal employment and better police and judicial services". The aim of their study was to investigate if employment in the informal economy is a safety

net or growth engine, using, as a proxy for employment, the share of self-employment in the labour force.

Again, it has been argued that countries with a large informal economy often experience lower economic growth than their counterparts with a small-sized informal economy (see Loayza 1996, 1997; Johnson *et al.* 1999; Schneider and Enste 2000; Ferraira-Tiryaki 2008). The explanations for this assertion stems from the fact that individuals operating in the informal economy often want their operations to remain small in order not to be detected by the regulatory authority; and as a result, they are not able to achieve, and benefit from, economies of scale. Similarly, informal firms being small are not able to maximally combine capital and labour in their operations, and this in turn makes them inefficient. The critics then conclude that the effects of the foregoing snowball into the overall economy, and will as a matter of necessity slow down growth in the economy. However, this assertion has been rebuffed by others (for example, see Gerry, 1978; Singh, 1994; Barwa, 1995; Sethuraman, 1997; Arimah, 2001; Weeks, 1975; Reddy 2007) who claim that the informal economy is well linked with the formal economy, provides a good income stream for participants, and ultimately contributes to economic growth. Specifically, it has been found that a considerable linkage exists between the informal sector, formal sector, government institutions and the wider economy (Gerry, 1978; Singh, 1994; Barwa, 1995; Sethuraman, 1997; Arimah, 2001).

Thus, it is argued that the informal economy not only contributes to economic growth (Weeks, 1975), but it is increasingly being utilised by formal firms and sub-contractors in the production and distribution of goods and services. Additionally, Reddy (2007), in his study, using survey data, shows that individuals who participate in the informal economy have experienced a significant increase in their incomes and assets. Potentially, informal enterprises absorb mostly family members, who work for relatively longer hours each day, with an average of 60 hours a week. Similarly, it has been documented that close to 30% of total income and above 40% of urban centre incomes are earned from the informal economy (Akande and Akerele, 2008). Also, in relative terms, the informal economy enables participants who possess a primary school education or less to earn higher incomes in Mexico (Roberts 1991) and Brazil (Akande and Akerele, 2008, citing Durston) than their counterparts working in the formal economy. Thus, the counter argument then concludes that the informal economy makes a positive contribution to economic growth, although Akande and Akerele (2008) report significant income disparity among participants in the Nigerian informal economy.

Generally, attempts to define the relationship between the informal economy and economic growth on the one hand, and the informal economy and official GDP by examining the overall sign of the impact of the informal economy on the other hand, has produced different results (e.g., Giles *et al.*, 2002; Dell'Anno, 2003, 2008; Schneider, 2005; Galli and Kucera, 2003; Dreher *et al.*, 2007). However, viewing the results in the context of a country's level of development appears to have reconciled this dilemma (see Schneider, 2005). Specifically, in a study of the informal economy of 110 countries using the "DYMIMIC approach (latent estimation)" Schneider (2005 pg. 1), has argued that the relationship is *prima facie* ambiguous but becomes meaningful and clearer when viewed within the context of the level of development. He then reports that the relationship between the informal economy and economic growth is negative for low-income countries but positive for industrialised and transition countries. Schneider's result is important as it has led to the conclusion that both beneficial and damaging effects of the informal economy on the growth of official GDP can coexist.

Similarly, Dell'Anno and Halicioglu (2010) found a strong evidence of bi-causality with causation running from official [formal] economy to unrecorded [informal] at the 5% level of significance and from unrecorded [informal] to recorded [formal] economy at the 10% level of significance. This result was reported from their study of the direction of causality between the recorded and unrecorded economy in Turkey using the "autoregressive distributed lag (ARDL) approach to cointegration analysis [and the] Toda-Yamamoto causality test" (pg. 1). In addition, Dell'Anno and Halicioglu also report a positive and quantitatively important effect of the unofficial [informal] on the official [formal] economy and vice versa; hence, their result supports the complementarities hypothesis of the sectors rather than substitutes. Thus, the overwhelming evidence is in support of the official growth of GDP being sustained by the informal economy in Latin American countries as it "mainly creates additional resources to reinvest in the economy" (Dell'Anno and Halicioglu, 2010, pg. 15). Also found is the possible amplification of business cycle fluctuations by the informal economy under a procyclical pattern for the unofficial economy.

4.2.2 Employment

The role of the informal economy in creating jobs has never been in doubt, as early studies showed that the informal economy emerged to close the employment gaps in developing economies (see Hart, 1971, 1973; ILO, 1972; Sethuraman, 1981). Particularly, these early writings assert that the unemployed in any economy will seek all

available means of survival and the most popular, possibly the only, destination is the informal economy, where they operate as self-employed, hawkers, wage earners, scavengers, shop-owners, shop-keepers and several other activities unregulated by the state. However, current debates see the informal economy in dynamic conditions that are far more complex and heterogeneous in many countries. Specifically, not all participants in the informal economy of today exist within a particular type of economic condition, or carry out a particular type of activity, as there are those who operate at low income levels, and others who undertake a high income-yielding activity. Similarly, the concept no longer represents a problem of developing economies alone. It is now generally agreed that informality exists in all kinds of economies, and exists in different forms (see Becker, 2004; Schneider, 2005).

In fact, Hart (2012) argues that the world has been informalised. Similarly, Neuwirth (2011) argues that the informal economy is both the fastest growing economy globally, and the future of the world economy. As noted in Section 3.13, it does not come as a surprise that a larger part of the world's working population operates in, and earns their income from, the informal economy. Particularly, echoing an OECD report for example, Jutting and Laiglesia, (2009) and Williams and Nadin (2010) show that about 67% of the global working population works in the informal economy. This is similar to results reported by Bajada and Schneider (2005), Williams and Nadin (2010), Williams and Round (2010) and Andrei *et al.* (2011). Specifically, Andrei *et al.* (2011) report a positive linear relationship between unemployment and the size of the informal economy. Analysis was based on the Phillips curve theory which states that inflation and unemployment rates have negative dependence or relationship, and the monetarist method which is based on cash outside the banking sector being used to calculate the size of the informal economy. The summary of the relationship between employment and the informal economy is that the early debates saw informal employment (to be defined in the next paragraph) as the major characteristic of the informal economy. Conversely, the current (realist) thinking, which has particularly gained pre-eminence in the last three decades, recognises the potential of the informal economy in creating quality jobs and sufficient income for participants and the general economy (Becker, 2004).

It is often argued that the informal economy is characterised by informal employment; particularly, jobs in the sector are dominated by low wages, irregular employment, casual jobs, social insecurity and lack of social guarantee, unsteady employment and part-time work. According to this thinking, employment in the informal economy describes jobs that are vague, unstable and unobserved. Similarly, the term 'informal

workers' in the early debate was a concept that was used to describe the job situation in developing countries, as participants were seen as the working poor (Tokman, 2001; ILO, 1972). Particularly, informal workers were seen as working individuals who were unable to earn sufficient wages to make a living (Tokman, 2001; Becker, 2004). Yet informal employment has become part of every economy today. Surprisingly, it is arguably being encouraged by global corporations to create some form of formal labour market flexibility (Andrei *et al.*, 2011; Verick, 2006). Most of the employment in the informal economy is found in the agriculture, service and construction sectors as these sectors are characterised by a large number of small producers, low technology, and high firm turnover (Ivakhnyuk, 2005). Also, part of informal employment is home based work which contributes largely to total employment (Chen *et al.*, 1999; Xaba *et al.*, 2002). In addition, it has been reported that most of these informal participants are women and children who engage in informal activities to survive and earn a living (ILO, 2009).

Besides the low wages earned by participants in the informal economy, other major concerns to economic stakeholders appear to be the spill-over effects to the state, and the quality of jobs provided by the informal economy. For example, Macias and Cazzavillan (2009) argue that informality has been of benefit to many countries by providing income and jobs for a vast majority of people, but it has simultaneously acted to the detriment of the state, as it has denied the government the needed revenues through taxes. Similarly, the argument follows that the informal economy has denied the government the funds needed to provide infrastructure and other developmental facilities for the populace. Finally, it is often argued that the dominance of informal jobs in global employment has created indecent and inequitable job conditions and imbalances in employment. The need to improve the employment conditions of informal workers has become a global agenda, included in the millennium development goals, and success in this area would arguably make the real effect of economic growth trickle down.

Conversely, the informal economy's role in job creation has also been viewed in a positive light, well documented in the literature (see ILO, 1972; Moser, 1978; Chen 2001; ILO, 2002; Xaba, *et al.*, 2002; Gali and Kucera, 2003; Becker 2004; Verick, 2006; Reddy 2007; Gurtoo, 2009). To reiterate, this began over three decades ago when the capacity of the informal economy to generate high-quality jobs and income to the general economy and individuals engaged in the informal economy emerged in the literature (Becker, 2004). According to Xaba *et al.* (2002), ILO (2002), and Becker (2004) in a separate study of the sub-Saharan Africa (SSA) countries, and Moser's

(1978) study of third world poverty and employment, the informal economy has increased in its activities, but also has shown a consistent pattern over time; It has successfully acted as a buffer and proved to be the only viable alternative in the place of a decline in the growth of formal employment (Gali and Kucera, 2003). For example, Chen (2001) and Verick (2006) report that the informal economy in Africa employed over 93% of new jobs created in the 1990s. Similarly, ILO (2002) and Becker (2004) show that about three-quarters of non-agricultural employment and 72% of total employment in SSA is found in the informal economy. Additionally, the SSA figures compare favourably with what is obtainable elsewhere; particularly, the informal economy's share of non-agricultural employment is 62% for North Africa, 60% for Latin America, and 59% for Asia (Becker, 2004).

Although the informal economy generally complements the formal economy (Reddy, 2007), in some instances the former has been seen to be playing a far more significant role in the economy than the latter. For example, in their studies, Xaba *et al.* (2002) and Verick (2006) observe a decline in formal employment but, for the same period, growth in the informal economy's share of total employment. The former study went further to report the informal economy share of the labour force to be about 89% for Ghana, 43% of urban employment in South Africa and Zambia, and over half the total labour force in Kenya and Uganda. Similarly, as a fraction of total employment, the informal economy accounts for 75%, 51%, 50%, and over 70% respectively in Mexico, Philippines, Thailand, and Bangladesh (Coraggio *et al.*, 1993; Akande and Akerlele, 2008), 50% in Lome, Togo (Nihan *et al.*, 1979), and 63% in Kano, Nigeria (Mabogunje and Filani, 1981).

More recent work about informal employment has differentiated between self-employed and wages-informal employment. Specifically, the new approach provides an alternative to the dominant survivalist theory. Thus, instead of viewing informal workers as individuals struggling to survive, the new approach argues that the majority of informal workers operate on an own-account basis, and participate in the informal economy for many reasons (ILO, 2002b). For example, it has been reported that an overwhelming majority of participants in the informal economy of SSA, North Africa, Latin America, and Asia operate as self-employed (ILO, 2002b). The import of this argument is that own-account informal participants have been reported to be entrepreneurs and earn income that is far above the minimum wage earned by workers in the formal economy (see Gurtoo, 2009). These findings have not only changed the view on the informal economy as a survivalist environment, they have also led to the canvassing for a change in policy

approach. For example, instead of discouraging all informal activities, those operating as entrepreneurs should be encouraged to grow, expand and formalise.

In conclusion, it is important to note that the informal economy might not have provided the best types of employment, but it has provided the highest number of jobs.

4.2.3 Poverty Reduction

Poverty reduction is a key macroeconomic goal for policy makers, and it forms the nucleus of the millennium development goals of the United Nations Development Program (UNDP). The effect of the informal economy on poverty reduction is without consensus in the literature, as it is arguably several and unclear (Aryeetey, 2010). On the one hand, it has been argued that participants in the informal economy are working poor (Tokman, 2001), as the wages they earn are too low to lift them above the poverty line. Whereas individuals go into the informal economy or are forced into the informal economy to get a job or create a job in order to earn a living and break out of the poverty cycle, they often earn low wages which actually keeps them in poverty. The scenario is well captured by Reddy (2007, pg. 464), who notes that the informal economy has "common roots in abject poverty, insecurity of land tenure, poor education, lack of institutional support and weak organisations [institutions]. ... The sector is closely associated with poverty and squatter problems". There is no doubt, the informal economy provides jobs for a large number of people but the quality of jobs has remained a debate, as it arguably ignores labour standards (see ILO, 1991). For example, the large share of informal employment in the economy has been blamed for poverty in some parts of the world. In particular, the prevalence and depth of poverty in Africa tends to correlate with employment arrangements and low levels of productivity. Of great interest is the fact that an overwhelming majority of African countries' labour forces operate in the informal economy, as nine in ten workers in both urban and rural area have informal jobs (ILO, 2009), and the continent remains the poorest in the world.

On the other hand, the informal economy arguably performs the important role of accommodating the poor, creating employment and reducing poverty as it provides jobs for both unskilled and semi-skilled individuals who could have been without jobs (Malik, 1996). For example, it has been reported that the informal economy provides alternatives for people laid-off from their formal jobs, and many that have never found a formal job, and/or may never get a formal job (Gali and Kucera, 2003). Similarly, Fiddler and Webster (1965, pg. 5) note that the informal economy provides employment for

three categories of people: the survivalists, the self-employed, and owners of small businesses. Some results from the literature corroborate this claim. For example, Reddy (2007) reports a significant increase in the incomes and assets of participants in the informal economy. Specifically, in his study of the effects of the informal economy on poverty reduction and income generation using data from two cities (Suva and Lautoka) and a town (Labasa) in Fiji, Reddy (2007) reports a positive contribution of the informal economy in alleviating poverty and enhancing income generation. In addition, he finds that informal enterprises absorb mostly family members, who have relatively long working hours a day with an average of 60 hours a week. He concludes by noting that it is the family members' roles in informal business, their education level and experience, that play vital roles in alleviating poverty. This conclusion is corroborated by Chen *et al.* (1999) and Xaba *et al.* (2002) who observe that individuals who engage in home based work are able to significantly reduce their poverty level.

4.2.4 Business Cycle.

There may be no contention about the existence of a relationship between the informal economy and business cycle, but the direction of relationship remains ambiguous (see Dell'Anno and Halicioglu, 2010). While in some studies (for example see Maloney, 1997; Gali and Kucera, 2003) the relationship is positive, in others (see Ferraira-Tiryaki, 2008, for example) it is negative. Specifically, in a study of the movements over business cycles and the effect of workers' rights in informal employment of 14 Latin American countries in the 1990s, using time series and panel data, Gali and Kucera (2003) note that the informal economy absorbs workers that are displaced from the formal sector during periods of economic downturns. Conversely, Ferraira-Tiryaki (2008, pg. 3) observes that the informal economy significantly affects volatility of the business cycle, and countries with large informal economies are likely to have "pronounced fluctuations in economic activity" during periods of economic downturns.

Generally, periods of cyclical downturns are characterised by a relative decrease in earnings and expansion in the size of the informal economy, as the latter accommodates the workers that are displaced from their formal jobs. The trend is however reversed when the economy begins to recover. In particular, it has been observed that the informal economy expands during periods of economic downturns but contracts during periods of economic recovery, as formal jobs become available. Typically, during periods of economic cyclicity, the informal economy exists to serve the reserve army of individuals who are willing to work but cannot get a formal job. Also well documented in

the literature are the findings of Carneiro (1997), Carneiro and Henley (1998), and Saavedra and Torero (2000) who confirm the countercyclical role of the informal economy. Specifically, Carneiro and Henley (1998) report, in their study of the late 1980s to 1990s Brazilian recession, a respective decline and increase in formal and informal employment. This result is corroborated by Saavedra and Torero's (2000) findings for Peru. Similarly, Saavedra and Chong (1999) have found that the informal economy's share of total employment increases during periods of economic downturn but declines during the upturn years.

Conversely, Ferraira-Tiryaki (2008) observes that the informal economy significantly affects the volatility of the business cycle in his study of the relationship between business cycles and the informal economy using a generalised method of moments methodology. Specifically, he argues and shows that countries with large informal economies are likely to have clear fluctuations in their economic activity. Again, the discussion of the characteristics of the informal economy shows that the firms operating in the informal economy are, by their nature, small in size, and unofficial. Similarly, discussions about determinants of the informal economy reveal that labour market rigidity, which has two-way effects, is one of the major factors responsible for a large size, and growth of the, informal economy. One such effect is that labour legislation often creates an overpriced labour market and an excess labour supply through either the existing unemployed individuals that cannot find formal jobs, or existing formal sector employees who are displaced from their formal jobs due to the cost of labour. These individuals are then forced to take up informal employment. Also, in a bid to reduce the cost of labour and remain competitive, employers of labour operating in the formal economy will begin to recruit workers from the informal economy.

Additionally, labour market rigidity is partly responsible for the small-scale nature of informal entrepreneurs (Ferraira-Tiryaki, 2008). Specifically, since informal enterprises are small in size, unseen, unregulated, and want to remain undiscovered by regulatory authorities, it follows that informal firms have limited access to loans, especially during periods of economic downturn. Their inability to secure the required financial facility that would ease their business operations exposes them to fluctuations and makes them fail during a downturn in the business cycle. Their failure, in turn, is felt in the economy as a whole, especially in countries where the informal economy is very large.

Different theories have been put forward to explain the relationship between the informal economy and business cycle. One such theory is the credit market theory under

information asymmetry. The effect of imperfections in the credit market on economic fluctuations has been extensively discussed in the literature (see Gertler and Gilchrist, 1994; Bernanke and Gertler, 1995; Hubbard, 1997; Bernanke *et al.*, 1998). Economic agents who are not able to borrow money due to information asymmetry are likely to be more affected during economic fluctuations, as they will not be able to smooth out fluctuations in their cash flows. A clear characteristic of the informal economy is that it consists of large numbers of small-sized entrepreneurs who often have limited access to credit, whilst the legal system for the protection of their rights to property and contract enforcement is non-existent. On the one hand, access to credit enables formal entrepreneurs to maintain a healthy cash-flow and uninterrupted operations during economic fluctuations. Lack of access to credit, on the other hand, significantly affects informal entrepreneurs. This in turn exacerbates the fluctuations in the economy, especially in countries where sizeable informal economies exist.

Similarly, raising interest rates as a tool for contractionary monetary policy can induce several effects on small businesses. It increases their cost of borrowing and interest payments on existing loans, reduces their cash flow, and reduces the value of their collateral. It can also cause a decrease in aggregate demand, which further crowds out firms' cash flow. As a result, they are not able to make new investments. All of the preceding factors combine to raise the cost of external borrowing of the firm. The increasing cost of borrowing externally, in addition to falling available credits, falling production and investment, combine to exacerbate the initial contraction induced by a monetary policy shock. However, the effect on big firms is minimal as they can borrow from the commercial papers' market and other sources of credit to augment their cash-flow. Typically, changes to the wealth of an entrepreneur, especially in small firms, can exacerbate economic cyclicalities (Bernanke *et al.*, 1996, 1998). Similarly, Gertler and Gilchrist (1994) have shown that small firms respond to a squeeze in their cash flow by reducing inventories, production, employment and prices, but large firms resort to short-term borrowing to maintain levels of production and employment. In summary, the financial accelerator theory suggests that economies dominated by large number of small firms are prone to higher levels of fluctuations in economic activities than countries dominated by big firms.

Using the concept of the credit market and economic fluctuations, Ferreira-Tiryaki (2008) presents an analysis of the links between the business cycle and the informal economy. The author notes that informal businesses are subscale, unproductive, and are likely to fail as they do not have the capacity to smooth out cash flow fluctuations. In developing

country studies, it has been found that informal businesses resort to illegal money lenders who often charge usurious interest rates and are only able to lend small amounts (see Loayza, 1997; Dabla-Norris and Feltenstein, 2003; Farrell, 2004), hence, are not able to smooth out cash-flow fluctuations. Similarly, informal businesses in developed countries, in an attempt to avoid detection by the authorities, also face tough credit conditions. The common response to financial squeezes by small businesses during periods of economic downturns is that they try to contain their operations, as explained in the preceding paragraph, which further magnifies the business cycle.

Suggestively, countries with large numbers of informal firms, which by nature are small in size, will experience intense fluctuations in economic activities. It also follows that the bigger the share of the informal economy in a country, the higher the volatility of the business cycle component of investment, output, and consumption. Thus, countries with a large informal sector experience relatively higher fluctuations in output, investment and consumption during the business cycle (Fereira-Tiryaki, 2008). It follows therefore that countries dominated by an informal economy will face relatively higher levels of business cycle volatility. This conclusion has been captured by Ramsey and Ramey (1994) who find less economic fluctuations in high industrialised countries, and Loayza (1997), Johnson *et al.* (1999), and Schneider and Enste (2000) who observe that industrialised countries have smaller-sized informal economies. This is corroborated by Bajada (2003) who reports greater effects of fluctuations in the informal economy on the economy at large, in his study of Australia.

Also, Fereira-Tiryaki (2008) reports greater economic fluctuations in countries with larger informal economies than those with smaller informal economies. Specifically, he finds that "volatility of the business cycle component of output, investment and consumption increase as the share of the informal economy grows, and this outcome is statistically significant in most regressions" (pg. 15). The conclusion of his study is that volatility of the business cycle and the magnitude of economic downturns are deepened by the informal economy. Thus, the larger the size of the informal economy a country has, the greater business cycle volatility it is likely to experience, though in countries where separation between formal and informal economies are ambiguous, this link may be weakened. Also, the link may not be clear-cut if the motive for participating in the informal economy is labour cost avoidance. This probably explains the lack of robustness in the results for high-income countries, and confirms the initial hypothesis that the relationship between the business cycle and informality based on labour cost avoidance is not clear-cut, as high income countries' informal economic participants do so in a bid

to avoid high labour costs. Another conclusion drawn is that when a country develops to a certain stage, the size of the informal economy becomes less important in explaining volatility.

Fereira-Tiryaki, (2008) has provided some insight to the relationship between business cycle and the informal economy. However, his study's perspective is far from being balanced, and if anything, is negative towards the informal economy. The author's claim of higher economic volatility with a larger informal sector contrasts with other results, particularly, the informal economy acting as a shock absorber to economic fluctuations (for example, see Gali and Kucera, 2003).

4.3 Other Evidence

This section focuses on other evidence that does not follow the macro-micro dichotomy. In particular, the section aims to present the empirical evidence on the determinants of the informal economy discussed in Sections 3.8-3.11

4.3.1 Foreign Direct Investment

Evidence in support of the effects of foreign direct investment flows (FDIs) on the informal economy has been reported in the literature. For example, Verick (2006), Chaudhuri and Mukhopadhyay (2009) and Feenstra and Hanson (1997) have observed that both positive and negative relationships exist between FDI and the informal economy. The relationship will be positive if FDI flows to the capital-intensive sectors, as the lack of employment creation by the FDI flows to such sectors will lead to the expansion of the informal economy. Conversely, the relationship will be negative if FDI flows to labour-intensive sectors, as more jobs will be created, which potentially, will assimilate those who were initially working in the informal economy. Particularly, UNECA (2004) note that the majority of FDI flows to African countries have been to the capital-intensive (extractive) sectors. This is arguably responsible for the burgeoning informal economy in Africa, as Verick (2006) has observed that FDI flows have not had much effect on [formal] employment in Africa.

Similarly, as noted in Section 3.10, the effect of FDI on the informal economy is also accentuated by the linkages (forward, backward or both) which exists between investment (FDI) and other sectors. Evidently, a high forward and/or backward linkage (see Section 2.2 for definition) between foreign investments and the informal economy

will positively influence the size of the informal economy. Particularly, Neuwirth (2011) found that a leading telecommunication firm in Nigeria, MTN, which is a subsidiary of a South-African owned telecommunication company, is heavily linked to the Nigerian informal economy, as it carries out most of its business activities in Nigeria through the informal economy. MTN has created a large number of informal jobs in Nigeria; hence, the former's activities have contributed to the growth of the Nigerian informal economy.

4.3.2 Corruption

The link between corruption and the informal economy have been well studied in the literature (see examples Dobson and Ramlogan-Dobson, 2012, 2010; Andres and Ramlogan-Dobson, 2011; Schneider *et al.*, 2010; Hart, 2012; Ferraira-Tiryaki, 2008; Choi and Thum, 2005; Dreher *et al.*, 2005; Schneider and Enste, 2000; Friedman *et al.*, 2000; Hindriks *et al.*, 1999; Johnson *et al.*, 1997, 1998a; Johnson *et al.*, 1998b). However, as noted in Section 3.8, there is no agreement about the nature and direction of relationship between the two concepts in the literature. Evidently, corruption positively influences the expansion of the informal economy, and vice versa in some cases. On the contrary, there tends to be evidence of a negative relationship between corruption and the informal economy. Yet, it is generally argued that corruption is harmful to growth and the economy. Conversely, there is a counter argument that corruption is beneficial to economies with certain economic characteristics. For example, in an exploratory study of the role of taxation and corruption, particularly, bribery, on the economies of 49 Latin American, OECD, and transition countries, Johnson *et al.*, (1999) report a large share of GDP for the informal economy if the following attributes exist in a country: great bureaucratic inefficiency and discretion, great tax and regulatory burden for a firm, less state revenue, weak rule of law, and bribery and corruption. In addition, the study found that "countries with a larger unofficial economy tend to grow more slowly... [hence,] corruption and ineffective regulatory and tax administration can result in lower growth" (Johnson *et al.*, 1997, pg. 1). What is clear from this result is that both the informal economy and corruption slow down the rate of economic growth.

Similarly, in their empirical study of the relationship between corruption and the informal economy using the structural equation model (SEM), Buehn and Schneider (2009) report a positive relationship between the informal economy and corruption. However, the authors make it clear that a stronger influence of the informal economy over corruption is what exists, rather than the other way round. In particular, it was reported that "a

large shadow [informal] economy is linked to high levels of corruption" (Buehn and Schneider, 2009, pg. 27). Arguably, people tend to depend largely on informal economic activities in countries with a large informal economy. Additionally, participants in the informal economy usually give bribes to corrupt government officials in order that they will not be detected, taxed, or punished. The implication of this is low tax revenue for the state, which, as noted in Section 3.4, can lead to a decline in the quantity and quality of public services and infrastructure provided by the state. Ultimately, this exacerbates corruption and induces further informalisation of existing formal enterprises, as state-institutions become even weaker to enforce compliance with the formal system. In fact, corruption is seen as having the effects of an extra tax, as it adds to the operational costs of people who participate in the formal economy, and pushes them to the informal economy (see Johnson *et al.*, 1998b; Hindriks *et al.*, 1999; Friedman *et al.*, 2000).

Also, in their model which considered the shadow [informal] economy as a substitute to the official [formal] economy, Johnson *et al.* (1997) found a positive relationship between corruption and the informal economy. Particularly, if the level of corruption in the official [formal] economy rises, the size of the informal economy will rise. Effectively, corruption pushes individuals operating in the formal economy to the informal economy. Similarly, Hindriks *et al.* (1999) found corruption as complementing, positively relating to the informal economy. These results have shown that corruption is not good for the economy, as it influences an expansion in the informal economy, and reduces economic growth.

Conversely, in their investigation of the link between the unofficial economy and corruption using a framework of self-selection with heterogeneous entrepreneurs, Choi and Thum (2005) found that the informal economy curtails the prevalence of corruption. Particularly, the authors note that the "entrepreneurs' option to flee to the underground [informal] economy constrains a corrupt official's ability to introduce distortions to the economy for private gains. The unofficial economy thus mitigates government-induced distortions and, as a result, leads to enhanced economic activities in the official sector" (Choi and Thum, 2005, pg. 1). Similarly, in a paper which investigates the empirical link between inequality, corruption and the informal economy, Dobson and Ramlogan-Dobson (2012, pg. 3) report results which "support the intuitive argument about the role of the informal sector in explaining the trade-off finding between corruption and inequality". Thus, the paper shows that the "marginal impact of corruption on inequality is reduced as the informal sector becomes larger" (*ibid*). Particularly, the paper shows

that policies aimed at reducing inequality will likely fail in countries with over 20% of their GDP in the informal economy. This result stimulates some important arguments. On the one hand, it probably explains why corruption tends to have been estranged in the system of countries with a large informal economy. On the other hand, the results suggest that policies which reduce the level of corruption will cause the size of the informal economy to shrink, but it will, at the same time, induce an increase in the level of inequality.

4.3.3 Migration

Empirical evidence available on the relationship between the informal economy and migration shows that the two concepts can be either substitutes or complements. For example, Abdulloev *et al* (2011, pg. 3) used the gap between household expenditure and income as a proxy for informal activity, to report a substituting relationship between migration and the informal economy for Tajkistan. Specifically, the authors found a “negative significant correlations between informal activities and migration” (ibid), and in the presence of migration, the gap between expenditure and income diminishes. In addition, they found that professional workers would not migrate as they were able to engage in informal activities. However, “low-skilled non-professionals without post-secondary education choose to migrate instead of working in the informal sector” (ibid). The report concludes by confirming a substituting relationship between migration and informality.

Abdulloev *et al.*'s (2011) results also make a strong case for the trade-off that exists between the informal economy and migration. Specifically, it suggests that migration can possibly crowd out informality. For example, if family finance improves with migration, members of the family would be less likely to take up informal sector jobs. However, if families with migrants have a lower expenditure to income ratio, it is interpreted as a substitution effect, as unreported informal income is substituted for remittance income, which has been reported.

In contrast, it has been observed in Africa that migration contributes to the growth of the informal economy, and it is mostly in the form of cross-border trade, rural-urban migration, and remittances. On trade-induced informal sector growth for instance, Xaba *et al.* (2002) and Verick (2006) observe that cross-border traders from Zimbabwe often go to South Africa to buy goods and take back to their country to sell in the informal sector. For its part, rural-urban migration follows what appears to be a global pattern.

Particularly, underemployed rural workers, especially youths, migrate to urban centres with the hope of securing white-collar jobs but often end up in the informal economy as there are insufficient jobs in the formal economy to accommodate all migrants. This has been well captured by Sethuraman (1981), Okojie, (1984), Reddy, (2007) and Ademola and Anyankora (2012) who noticed a high proportion of migrants moving from rural areas to urban being absorbed by the informal economy. Sethuraman (1981) for example argues that migration was responsible for the population growth in urban areas in the 1960s, and reports, migration as a key contributor to the growth of the informal sector in Lagos state, Nigeria.

Similarly, Fapohunda (1981) reports about 30% of entrepreneurs operating in the informal economy to be migrants to Lagos from other states and outside the country. Reddy (2007) notes that the proportion of migrants working in the informal economy hovers around two-thirds and it is 70% in Dhaka, 63% in New Delhi, 97% in Jakarta, and 80% in Bangkok. Finally, it has been observed that remittances from Africans in diaspora, funds investment and activities in the informal economy (Verick 2006; Ferraira-Tiryaki 2008). On the one hand, individuals having family members abroad are able to start up informal businesses from the money remitted to them. On the other hand, the informal sector is used to remit money to family members back home (see Rossis, 2011). High costs of official transfer, official regulations, and illegal-immigration status of the remitter are some of the reasons given for thriving informal remittances. Thus, with the combination of these three forces - trade, rural-urban migration, and remittances - the informal economy has continued to grow.

4.3.4 Structural Adjustment Programmes (SAP)

The structural adjustment programme (SAP) has been found to be a key determinant of the size of the informal economy. Specifically, Verick (2006 pg. 15) note that the "SAPs of the 1980s and 1990s led to a growing informal sector in Africa". For Nigeria, Oshimowo (see Ademola and Anyankora, 2012) found that the introduction of SAP led to the massive retrenchment of formal sector workers which in turn led to the growth of the informal economy as the workers displaced during the implementation of the SAP found their way to the informal sector. Similar results have been reported elsewhere. For example, in Kenya, Ikiara and Ndung'u (1999) report a positive relationship between the SAP and the informal economy, as the introduction of the SAP induced a large expansion in the size of the Kenyan informal economy. Similarly, Mupedziswa and Gumbo (2001)

report that the implementation of the SAP in Zimbabwe led to a significant increase in the proportion of women participating in the informal economy.

The role of the SAP in expanding the size of the informal economy is not surprising as its policies are characterised by caps on wages, mass retrenchment of public and private sector employees, successive and sharp currency devaluation, and underemployment and disguised unemployment of the workforce. Evidently, there is a decline in the overall conditions of, and capacity to employ and/or retain a good number of employees by, the formal economy, which clearly explains the growth in the informal economy (see Meagher and Yunusa, 1996).

In particular, Akande and Akerele (2008 pg. 2) observe that "the failure of modern urban industries to generate a significant number of employment opportunities is one of the most obvious failures of the development process over the past five decades in Nigeria. The public sector has also not been particularly helpful in terms of employment generation, due largely to dwindling public sector revenue and the various reform measures that have led to downsizing and retrenchment". Hence, Dike (1992; see Meagher and Yunusa, 1996), for example, notes that within the space of seven years, 1985 to 1992, the successive devaluations of the Nigerian currency, the naira, have led to a massive fall from N1.2 (Nigerian naira) to US\$1 (US dollars) to N19 to US\$1 in the exchange rate. For the same period, prices of domestic and imported goods increased fivefold and twentyfold respectively; the weight of the massive retrenchment led to the alteration of the unemployment composition as many graduates and professionals became unemployed.

Similarly, Birks and Sinclair (see Meagher and Yunusa, 1996) have noted a significant fall in the real wages of those lucky enough to be in employment. For example, the 1987 real wages of public sector workers, when compared with the 1975 value, were 37% and 20% for lowest ranks and middle class workers respectively. These categories of workers/individuals are put under further pressure by declining social services expenditure. The way forward for them is to engage in activities in the informal economy in order to survive. It appears the government had anticipated that the informal economy will be able to accommodate the fallout from the introduction of SAP, as its policy response suggests. For example, some institutions including, the people's bank, and national directorate of employment were established to provide credit and training for workers displaced from their formal jobs.

4.4 Conclusion

In this chapter I have examined the impact of the informal economy in a micro-macro dichotomy. Discussed under micro evidence are the neoclassical leisure-income model of microeconomic theory, features of the informal participants and economy, and the informal entrepreneurship and microenterprises. For its part, the macro evidence considered the macroeconomic theory of endogenous growth model, and the relationship between the informal economy and the following: economic growth, employment, poverty reduction, and business cycle. I also examined the relationship between the informal economy and the following: foreign direct investment (FDI), corruption, migration, and structural adjustment programme (SAP), which do not follow the micro-macro divides.

Building upon this chapter, my aim is to discuss the IFS and 4Cs concepts in Chapter 5. Additionally, I shall present and discuss the conceptual framework of the current study in the next chapter.

Chapter Five Conceptual Framework

5.0 Background

In the last three chapters I have examined the theories, determinants and impact of the informal economy. This chapter takes these presentations further by discussing concepts and frameworks which show, on the one hand, how the theories, determinants and impacts of the informal economy are linked to each other. On the other hand, the concepts and frameworks to be discussed in this chapter will show how the theories, determinants and impact of the informal economy connect to the methods employed in its study and the remainder of this thesis. These key concepts are the IFS and 4Cs. The chapter is structured as follows. I begin with an introduction of the IFS and 4Cs concepts. Thereafter, the conceptual framework is presented. This is followed by the 4Cs and IFS frameworks respectively. Then, the frameworks are explained. This is followed by a brief conclusion.

5.1 The IFS and 4Cs Concepts.

I developed the IFS and 4Cs concepts, from an extensive review of the literature, to carry out the analysis in this chapter. Before discussing the concepts in details, it is appropriate to reiterate some of the key points in Chapters 3 and 4. Specifically, the discussions in those chapters reveal that the key determining factors of the informal economy include both micro and macro factors: the need to be competitive, the need to survive, corruption, tax burden, migration, bureaucracy and government regulations, unemployment, population growth, FDI, the SAP and weak institutions. However, variations exist in the sense that what is predominant in an economy varies at different stages of its development. For example, the overarching factors during the SAP era in Nigeria were stimulating the Nigerian economy for growth, and creating employment for those displaced from their formal employment through the informal economy. Conversely, the pre-SAP era in Nigeria focussed on such factors as the need to survive, as migrants to urban centres lacked the necessary education and skills to take up formal employments, and entrepreneurial development as some of the participants were seen as happy with their businesses and work in the informal economy. This was in addition to the relative higher income earned by participants in the informal economy. Finally, the overarching factors in the post-SAP era in Nigeria were the need for survival, employment and income generation, entrepreneurial development, poverty reduction,

and socioeconomic factors (see Meagher, 1991b; Meagher and Yunusa, 1996). Overall, these key factors will be subsumed in the IFS factors in this study.

The IFS is an acronym for individual (I), firm (F), and the state (S). Generally, while most of the micro factors discussed in Chapter 4 (see Section 4.1) can easily be classed as IF factors, the macro factors (see Section 4.2) would largely be S factors. Also, the other (evidence) factors (see Section 4.3) which do not follow the micro-macro dichotomy are mainly S factors. For example, such micro factors as the features and characteristics of the participants, which encompasses the participant's sex, age, religion, area of residence, level of education and skills, and need for survival, higher standard of living, entrepreneurial development and need to be competitive, are mainly IF factors. Conversely, such macro factors as economic growth, unemployment or employment, and poverty are largely grouped as S factors. Similarly, such other (evidence) factors as corruption, and migration, which was initially induced by population growth in some developing countries, are S factors.

What needs emphasising at this point is the fact that, besides investigating the determining factors of the informal economy, research has concentrated on the effects of the informal economy in various countries of the world. Specifically, the macro evidence discussed in this study, for the most part, has reviewed the various arguments on the role of the informal economy in employment and income generation, poverty reduction or acceleration, intensifying or reducing the effects of the business cycle, and contributions or otherwise to economic growth. These macro factors are also captured by the IFS framework, as the latter represents the channel through which the benefits are transmitted to the economy.

I developed the IFS concept to explain the various factors representing determinants and effects of the informal economy, whilst the 4Cs was developed to summarise the various theories of the informal economy. These theories present different views about the informal economy. The theory applicable to a particular economy, at any point in time, would determine the policy response and/or recommendations. However, the literature appears to suggest that none of the theories is complete on its own, as each has been critiqued on different grounds (for example, see Chen, 2012; Schneider *et al.*, 2010; Schneider and Enste, 2000). To reiterate, the dualist theory has been criticised for proclaiming two sector economies, informality is a problem only of developing countries, temporary and will stop existing once modern growth sets in, and that the economies do not link. The structuralist theory has been criticised for suggesting that a separate policy

be implemented for the informal economy, especially to reduce the imbalance between big firms and subordinating-informal enterprises, since the theory also argues that the informal economy is well linked with the formal. The legalist theory has been criticised for ignoring the formal economy and informal wage-workers in its analysis. Finally, the survivalist theory has been criticised for paying little attention to formal-informal economy linkages. In the light of this, it is important to know what theory(ies) is(are) applicable to Nigeria, as no existing study on Nigeria, to the best of my knowledge, has investigated this aspect of the Nigerian informal economy. This thesis aims to address this gap.

In addition, the IFS framework (also known as the IFS triangle) facilitates the understanding of the informal economy's theories and the potential methods applicable to its study. It would be logical to argue that some vital information and characteristics of the informal economy can be omitted if a particular method, rather than another, is employed in its study. For example, the survey method has been widely used in the study of the informal economy, as it is able to provide information relating to the characteristics and economic status of participants. In particular, surveys can show the status of participants' migration, employment, education, income, and their reasons for engaging in the informal economy. However, in using the survey method, one would have to decide whether to sample only the firm/enterprises, the household/individuals or combine both. If samples are taken from individuals alone, there is a high probability that firm-inducing factors, which also determine the informal economy, would be omitted (see Williams, 2006; Valentina and Silvia, 2011). Such a researcher, according to the IFS triangle, is likely to have been influenced by DSV (Dualist, Structuralist, Voluntarist) theories, and not the Legalist Theory which pays little or no attention to the individual. Similarly, if the focus of a survey is on micro-enterprises or firms only, a vital argument as put forth by the dualist would be lost; hence, the theories applicable, in this case, are the SVL (Structuralist, Voluntarist, Legalist) theories.

Again, empirical macro-studies of the informal economy have extensively used the currency approach, and the main variable in this method is tax. Clearly, tax avoidance or/and evasion are key factors which run through the four theories of the informal economy. By using the currency approach, one is poised to touch on the LDSV (Legalist, Dualist, Survivalist, Voluntarist) theories of the informal economy. However, such studies, which are based on the currency approach, can identify only one factor, that is, taxation, which determines the informal economy. Aiming to overcome the drawbacks of the currency approach, researchers have employed the multiple indicators, multiple

causes (MIMIC) method to study the informal economy. The strength of the MIMIC method (see Vuletin, 2008) is that it can combine all the factors of the LDSV theories in a single study. For example, high corruption, systemic flaws, lack of growth, and high population growth are some of the factors identified by the dualist theory as characterising, or responsible for, the informal economy. Without doubt, the listed factors are state related, and the MIMIC method has been used to investigate the effects of these factors on the informal economy.

However, identifying what factors are causes and what factors are indicators is always difficult, as most of the factors qualify as both (see Schneider *et al.*, 2010). For example, poverty can be the cause of participation in the informal economy, but it can at the same time be an indicator of the informal economy. The most celebrated empirical works, of Schneider and Enste (2000), and Schneider *et al.* (2010) on the size of the informal economy all over the world, were largely based on currency and MIMIC model approaches. The result of the 2010 study, which utilised only secondary data spanning 1999-2006 (just eight years), for instance, is often quoted when discussing the size of the informal economy in Nigeria. The current study hopes to provide an alternative, by estimating the size of the informal economy using currency and MIMIC model methods, secondary data, which covers a longer period of time, and a new set of primary data. Also, in contrast to Schneider and Enste (2000) and Schneider *et al.* (2010), and following the above argument that a robust study must seek to solicit information from all sources as postulated by the various theories, the current study employs survey data obtained from both individuals and owners of enterprises, to investigate the Nigerian informal economy.

To the best of my knowledge, none of the few existing empirical studies on Nigeria meets all the identified 4Cs and IFS-triangle attributes, hence, there exists a huge gap that needs to be addressed. Specifically, the focus and approach of the lead-empirical studies of the informal economy in Nigeria, perhaps the only ones relevant to this study, are briefly discussed hereunder.

Arimah (2001, pg. 114) sets out to investigate the "nature and determinants of the linkages between informal and formal sector enterprises in Nigeria." It was a quantitative study based on a logit regression model, and data were collected from six states in Nigeria: Lagos with 514 samples and Ibadan with 416 samples represent the south west, Kano with 354 samples and Suleja with 120 samples represent the north west, and Aba with 385 samples and Nnewi with 202 samples represent the east, of Nigeria. The total

samples for this study was 1,991. From the sample-size and methods applied in the study, Arimah's work stands out from the pack. However, the current research is different for many reasons. First, it covers five of the six geopolitical zones and the federal capital territory of Nigeria as against the three zones covered by Arimah's study. Secondly, this research focuses on the informal economy as a whole, as against an aspect of the informal economy: formal-informal economy linkages focussed on by Arimah. Finally, the present research, in addition to survey data, utilises secondary data and sophisticated econometrics in its study of the Nigerian informal economy, whereas, Arimah's work only uses survey data.

Another, older, empirical study was undertaken by Meagher and Yunusa (1996). Data for this study were collected via a questionnaire administered to 300 enterprises, 116 employees and apprentices, selected from the initial 300 sampled, and another 92 entrepreneurs, employees and apprentices, in Kaduna state. Although the authors claim the two latter samples were given different sets of questionnaires, such a sampling strategy can lead to double counting; yet, Meagher and Yunusa neither indicate in their work that double counting was plausible, nor discuss possible mitigants. In addition, the three points which differentiate the present study from Arimah's are also applicable here, for example, Meagher and Yunusa's study cannot be a true representation of Nigeria's informal economy, as samples are collected from just a single town, state.

Similar to the work of Meagher and Yunusa, Duru, (2012), used descriptive analysis, and survey data from a single local government area in Kaduna state, collected via in-depth interviews of 200 participants in his study. Also, Ademola and Anyankora (2012) employed simple regression and descriptive analyses, on survey data from 152 completed questionnaires, to study informal sector activities in Lagos Island, Nigeria. Ademola and Anyakora, and Duru's studies are similar to Meagher and Yunusa's in many ways, hence, the four points of critique of the latter study are also applicable to the former. Other studies that can be critiqued on same grounds include, Meagher's (2011) case study, using 3 enterprises, a survey of 173 firm heads across three clusters, interviews of 30 firm heads and leaders of occupational and local government associations; and Fapohunda's (2012 pg. 35) study, using descriptive analysis and responses from 150 women surveyed in the Mushin, Agege and Lagos Island areas of Lagos Nigeria.

In what appears closest to the current study, albeit with significantly different topics and aims, Akande and Akerele (2008 pg. 1) employed both primary and secondary sources in

their study. For example, they only focussed on just one aspect of the informal economy, the employment potential, and three sectors of the informal economy: distributive trade, manufacturing, and technical services. The secondary data and information used by Akande and Akerele includes records and documents of employments from two states, each from the six geopolitical zones of Nigeria plus Abuja, producing a total of 12 states plus Abuja. In particular, 24 Local Government Areas (LGAs) plus Abuja were covered. However, the current study utilises national time series data and presents results that are more representative of the Nigerian informal economy. In addition, Akande and Akerele collected primary data through questionnaires, administered to 400 participants in each state, and interviews, conducted on 50 opinion leaders. Data analysis was carried out on the bases of ratios, percentages and trend analyses, and a simple regression based on a model for employment. While the sample size for Akande and Akerele's study is large, their study is restrictive as it focuses on just the employment potential of the informal economy. The present study on the other hand investigates the informal economy in Nigeria as a whole, and employs sophisticated econometrics.

Another study has been carried out by the Nigerian Institute of Social and Economic Research (NISER; World Bank, 2009), using data collected from 160 respondents across six states plus Abuja, and descriptive analysis of the data was done mainly through tabulation of responses. Again, the focus of this NISER study is different from the current one. Similarly, Fadahunsi and Rosa (2002), in a case study of 6 businesses, adopting an ethnographic approach, investigate the "entrepreneurship and illegality: insights from the Nigerian cross-border trade". Clearly, the focus of their study is different.

Fapohunda's (1981) and Mabogunje and Filani, (1981) investigate the informal sector in Lagos and Kano states, Nigeria, respectively, using data obtained from surveyed enterprises in the respective states. Specifically, Fapohunda (Sethuraman, 1981, pg. 27) investigates the "Human resources in the Lagos informal sector" using data from a sample of 2000 enterprises in Lagos. Mabogunje and Filani (Sethuraman, 1981, pg. 27) meanwhile examine "The informal sector in a small city: the case of Kano" using data from 583 enterprises sampled in Kano. Both studies analysed their data through descriptive techniques. Although the sample-sizes of the studies are quite large for state-level study, there are misgivings about their sampling just enterprises. Particularly, it is understood from the 4Cs and IFS-triangle frameworks that a significant amount of quality information could be omitted if data sampling focuses on either the enterprises or individual/household, but not both at the same time.

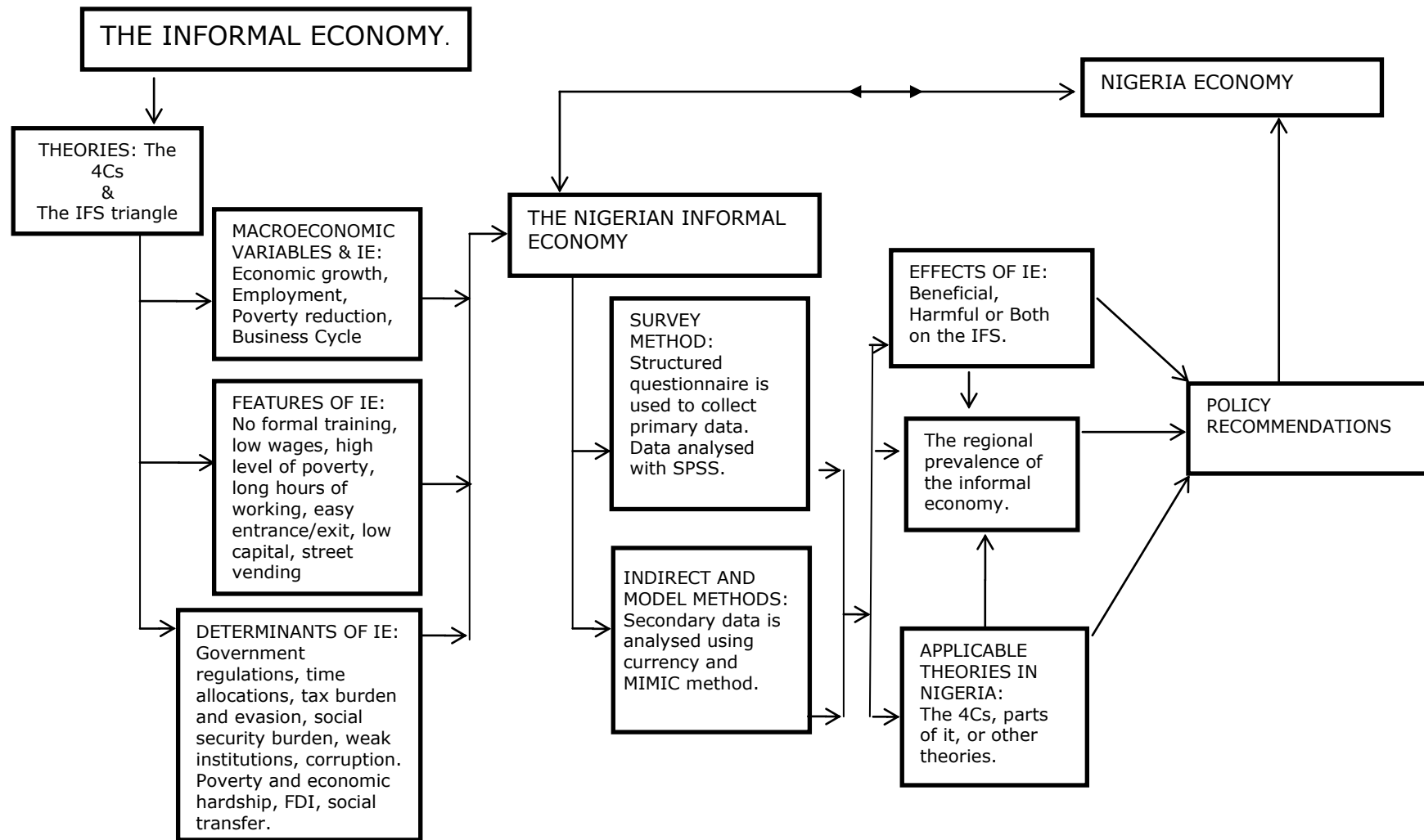
It is also understood from the frameworks that the direct, that is survey, method alone cannot give a full picture of the informal economy, hence, there is need to combine both direct and indirect methods in a robust study. The current study hopes to close this gap by combining, in a quantitative study, both primary and time series-secondary data, studied with sophisticated and modern econometrics.

Finally, the IFS triangle can also facilitate the type of policy recommendations that would be made to address the challenges of the informal economy, and/or the challenges the informal economy brings to the rest of the economy, and/or the global economy. For example, if the variables that are statistically significant in an empirical study are state-based factors, then, policy recommendations would of necessity start with the state. The same is also true for the firm- and individual-based factors. In the Sections following, this study's conceptual framework, the 4Cs and IFS frameworks, are presented and discussed.

5.2 Conceptual Framework

Figure 5.1 below represents the conceptual framework for the research. The study begins with an overview and extensive review of existing literature on the informal economy. This reveals the main theories of the informal economy which are summarised in the 4Cs and IFS triangle. The theories of the informal economy, 4Cs and IFS triangle, can be best understood by investigating the features and determinants of the informal economy, and the relationships between the informal economy and macroeconomic variables. At this point, the Nigerian informal economy is introduced and studied by investigating its features, determinants, and interactions with macroeconomic variables, using both survey/primary (direct method) and secondary data (indirect method). The overarching goal of the interactions is to determine the effects (beneficial, harmful, or both effects), the regional prevalence, and the applicable theories of the informal economy in Nigeria. Then, recommendations which are expected to influence policies, and the overall Nigerian economy are given. Overall, the effects of the recommendations of this study on the Nigerian economy are, in turn, expected to reflect in the Nigerian informal-economic performance.

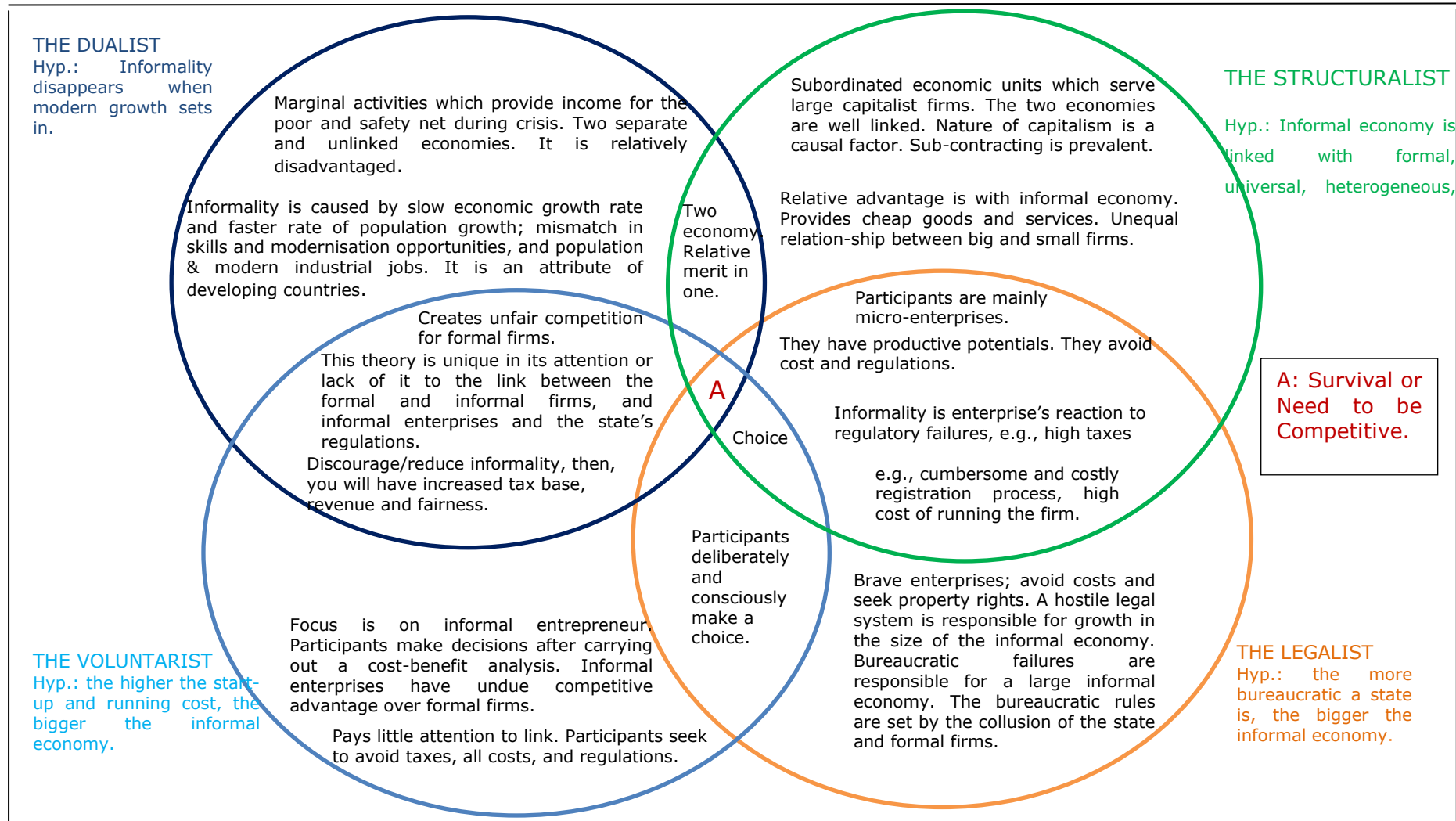
Figure 5.1 : Conceptual framework



5.3 The 4Cs Framework

In fulfilling the research objectives as outlined in the conceptual framework (i.e., Figure 5.1), an extensive review of the literature has been conducted in Chapters 2-4. A critical challenge was the difficulty in distinguishing one theory of the informal economy from another. I have attempted to resolve this confusion in the present study by developing the 4Cs concept as shown in Figure 5.2. Specifically, the 4Cs in Figure 5.2 represent four circles which are used to depict the main theories of the informal economy. Loops 1, 2, 3 and 4 represent the dualist, structuralist, legalist and voluntarist theories respectively. It can be seen from Figure 5.2 that there is an area in each of the 4Cs where that particular theory is distinct from the others; point A, which is the joint-intersect of the 4Cs; and eight other intersects on the loops. Detailed discussion of these intersections shall follow the introduction of the IFS triangle below. It is worth noting, for the sake of space, that each loop of the 4Cs, as shown, might not capture everything there is to a particular theory. It does, however, show the main orthodoxy and characteristics of each of the four main theories. Additionally, any attempt to discuss each of these characteristics in details in this sub-section would result in duplication, as that has already been done in Section 5.1. However, the points of intersection will be discussed in Section 5.4.

Figure 5.2: the 4Cs: theories of the informal economy.



5.4 The IFS Framework

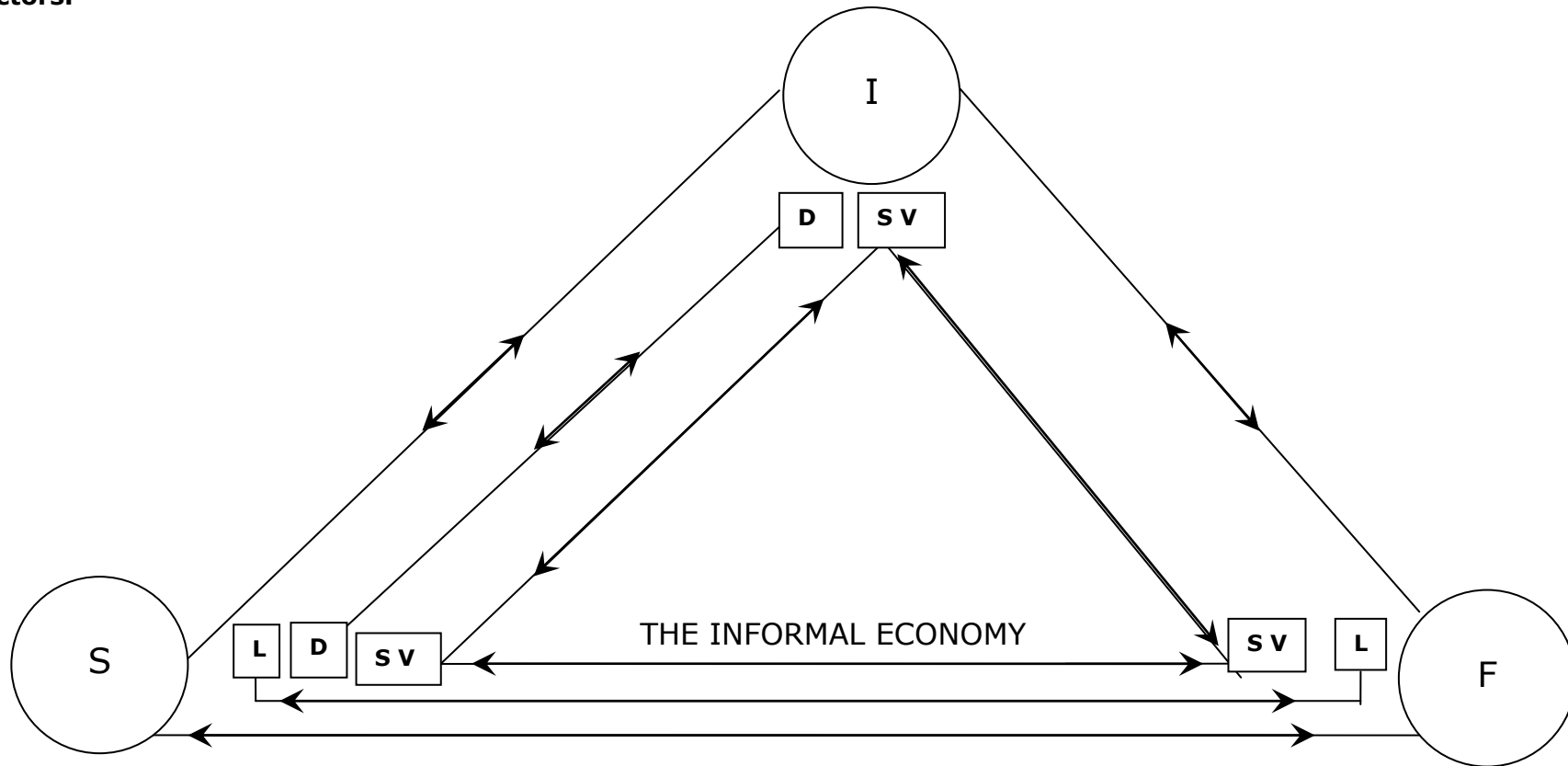
In addition to the challenge of streamlining the analysis of the abundant literature on the theories of the informal economy, the next challenge confronted is how to determine the methods for studying the informal economy, as existing theories are not tied to any particular method for analysis. This has motivated the development of the concept of the IFS triangle, as shown in Figure 5.3. Specifically, Figure 5.3 depicts, in a triangular nexus, the main actors in the economy (the state, firm and individual-household), and their defined roles by the existing theories of the informal economy (DLSV). These actors either act to cause expansion of the informal economy or they are affected by the activities of the informal economy. Particularly, as discussed in Section 5.1, the different theories of the informal economy have argued that the activities of the state, firm and individuals lead to the expansion of the informal economy.

According to the IFS triangle in Figure 5.3, the dualist, survivalist and voluntarist (DSV) theories have particular individual factors listed that contribute to the growth of the informal economy. For example, the dualist theory has identified individuals engaged in the informal economy to have some form of skills-gap, inadequate education, migrants to urban centres, poverty, and engage in it for survival reasons. For its part, the structuralist theory argues that individuals engage in the informal economy because they need extra income, do it as a second job or business, and the informal economy represents a seed-bed for entrepreneurship development. Lastly, the voluntarist theory argues that individuals who engage in the informal economy are clever, skilful and educated, as they carry out an implicit cost-benefit analysis before deciding to engage in the formal or informal economy.

Also, the IFS triangle shows that the structuralist, legalist, and voluntarist (SLV) theories have identified factors that are firm-based, which affect the size of the informal economy. Specifically, the structuralist theory argues that such firm related factors as the nature of capitalism, subordinated and imbalanced firms in well-linked relationships, the need to be competitive, firms' response to unions' power and state regulations drive growth in the size of the informal economy. Similarly, the legalist theory argues that the firm's deliberate strategy to avoid cost, time wastage, and rigorous processes for registration, drive costs. Finally, the voluntarist theory argues that firms' craving to deliberately avoid cost, taxes and regulations leads to their participation in the informal economy.

In addition, Figure 5.3 shows that the four main theories, dualist, structuralist, legalist, and voluntarist (DLSV) theories have argued that state related factors are responsible for growth in the informal economy. For example, the dualist theory argues that the informal economy arises because there is a systemic flaw, lack of economic growth, unemployment, high corruption, and high rate of population growth. Similarly, the structuralist and legalist theories argue that the informal economy arises due to negative bureaucratic procedures. While on the one hand, the structuralist theory would include such state factors as high taxes, social security burdens or legislation, on the other hand, the legalist theory would include such factors as hostile legal system and lack of property rights. For its part, the voluntarist theory argues that such factors as commercial regulations, taxation and the high cost of utilities are responsible for the burgeoning size of the informal economy.

Figure 5.3: the IFS (I-individual, F-firm, S-state) triangle: Depicting the theories of the informal economy and their causal factors.



Note: L-legalist, D-dualist, S-structuralist, V-voluntarist.

5.5 The Convergence of the 4Cs and IFS triangle

In Section 5.1 it was argued that the state, firm and individuals are in one way or another affected by the activities of the informal economy. The IFS triangle, in addition to depicting the factors that induce growth in the informal economy, also represents the actors that are affected by the activities of the informal economy. Establishing this fact makes it easier to link the theories of the informal economy to the various methods that can be applied to its study. Indeed as discussed in Section 5.1, the method employed in the study of the informal economy is or, at least, should be underpinned by the factors that both are the effect of, and affect, the informal economy. This brings us to the point of convergence of the 4Cs and the IFS triangle, as shown in Figure 5.4.

As can be seen from Figure 5.4 there are four main loops, DSLV (Dualist, Structuralist, Legalist, Voluntarist theories), which represents the 4Cs and IFS triangle nexus with eight intersections, labelled 1 to 8. Generally, Figure 5.4 shows the distinction and interconnections among the theories of the informal economy, and enables us to identify the three main factors, individuals, firms and state, and how they affect and are affected by the existing theories of the informal economy (DSLV). In particular, point 1 is the point at which all four loops intersect, and represents the factors that are common to the 4Cs and IFS triangle. From the 4Cs point of view, the common ground is the individuals' need to survive or the firms' need to be competitive. I will argue that survival and competition converge seamlessly, as the ultimate goal of competing is survival. Specifically, firms engage in the informal economy in order to be competitive, and hence, to survive.

From the IFS triangle point of view, point 1 represents the state factors that affect the informal economy. The point of convergence of the 4Cs and IFS triangle for point 1 refers to the state factors which compel the individuals and firms to engage in survival activities. For example, such state factors as systemic flaws, lack of economic growth, unemployment, high corruption, high rate of population growth, negative bureaucratic procedures, high taxes, social security legislation, hostile legal system, lack of property rights, and high cost of utilities have been discussed in the Sections in Chapters 2-4 as factors that could make the individuals or the firm engage in survival activities.

Also, Figure 5.4 shows that at point 2, the DSV intersects, and the common premise according to the 4Cs is, two distinct economies with a relative advantage in one over the other. For its part, the IFS triangle suggests that point 2 represents the individual factors

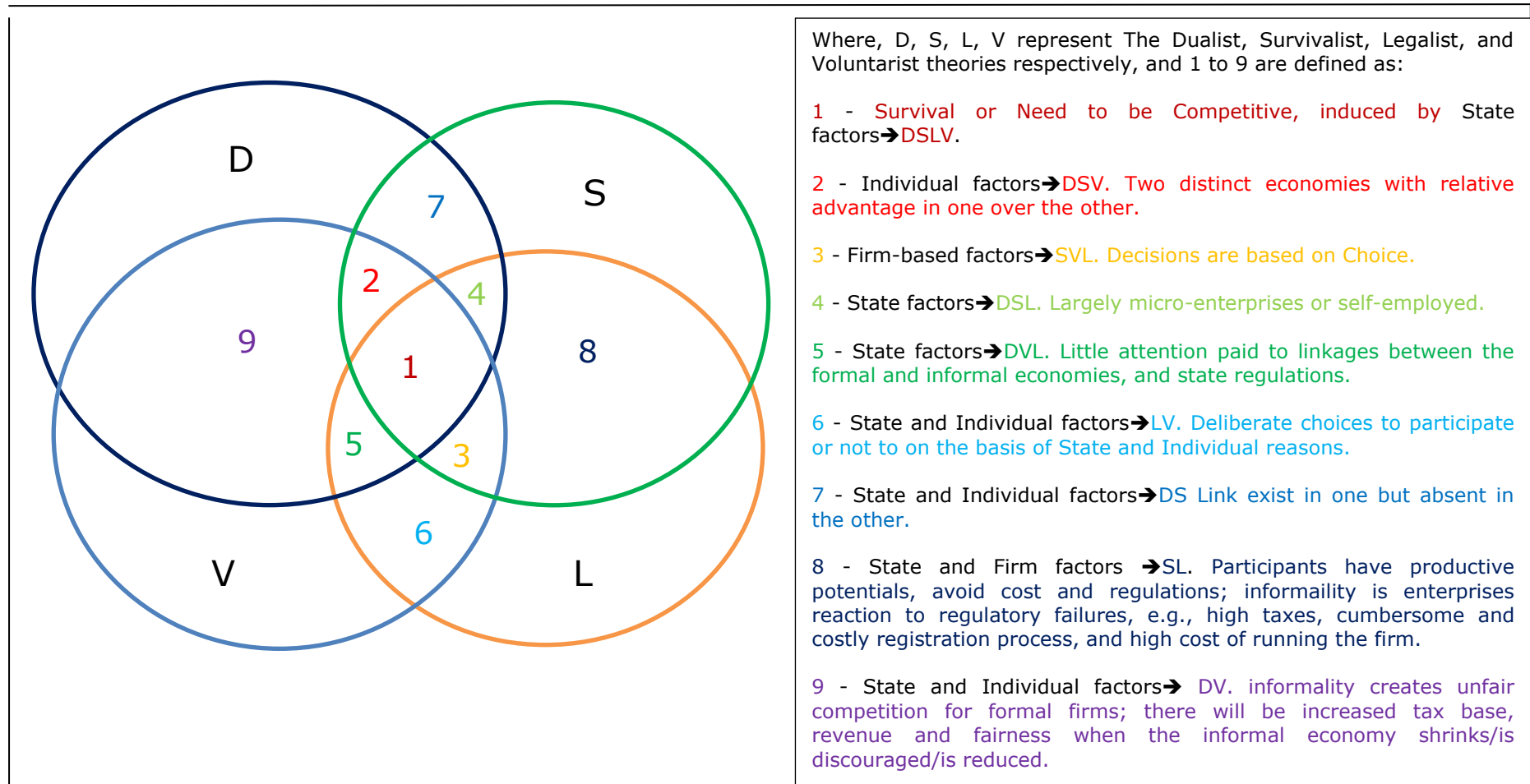
which affect the informal economy. The point of convergence is that such individual related factors as skills-gap, inadequate education, migration and productivity, poverty, need for survival and/or extra income, drive to develop entrepreneurial skills, deliberate attempts to defraud the system as clever, skilful and educated individuals who carry out a cost-benefit analysis, avoid taxes and regulations, electricity and rental fees, and other operating costs, have been discussed in Chapters 2-4 as factors which make one of the sectors relatively advantageous to the other.

Similarly, Figure 5.4 shows that at point 3, the SVL intersects, and the common theme according to the 4Cs is that decisions are based on choice. Conversely, the IFS triangle suggests that the underlining factors for point 3 are firm-based. The point of convergence is that such firm related factors as nature of capitalism, well linked economies but subordinate and imbalance firms, competition, response to unions' power and state regulations, deliberate strategy to avoid costs, taxes and regulations, carry out cost-benefit analysis and base decisions on it, defraud the system, and deliberate strategy to avoid cost, time wastage, and rigorous process for registration, have been discussed as factors that enable participants to base their participation in the informal economy on choice.

Additionally, it can be seen from Figure 5.4 that point 4 represents the nexus of the DSL, and the 4Cs common theme is that participants in the informal economy are largely microenterprises or self-employed. For its part, the IFS triangle suggests that state factors are responsible for the interactions at point 4. Specifically, such factors as the state's negative bureaucratic factors, overregulation, burden of taxes and social security regulations, as discussed in Chapters 2-4, push microenterprises and the self-employed to the informal economy.

Similarly, at point 5, Figure 5.4 depicts the DVL intersect, which according to the 4Cs represents the very limited level of attention the DVL theories have given to the linkages between the formal and informal economy. Conversely, the IFS triangle suggests that the inducing factors for point 5 are state related. The state factors for point 5 can be justified on the ground that the DVL theories have over-concentrated on the conditions of the economy, for example a backward and corrupt state, the legal environment, and the notion of unfair competition between the two economies, to the neglect of the link between the formal and informal economies.

Figure 5.4: Interconnections and interactions between the key theories of the informal economy, the 4Cs and the IFS triangle.



Also, Figure 5.4 at point 6 shows the nexus of the LV, and the 4Cs common theme is that those engaged in the informal economy are often involved in a deliberate choice-making exercise before deciding to carry out their activities in the informal economy. For its part, the IFS triangle suggests that the inducing factors are both state and individual related. The point of convergence is that participants in the informal economy make a deliberate choice to engage in informality, because of such individual factors, as the need to avoid costs, regulations, and taxes, which generally, are influenced by such state factors as overregulation, tax burden, and social security burdens.

Another point of intersection on Figure 5.4 is point 7, which depicts the DS intersects. According to the 4Cs, the common subject for point 7 is about the presence or absence of the link between the formal and informal economy; while the structuralist (S) theory argues that a link exists between the formal and informal economies, the dualist (D) theory argues otherwise. Also at point 7, the IFS triangle suggests that the inducing factors are state and individual related factors. Specifically, both state and individual factors have arguably influenced views on the existence or otherwise of a link between the formal and informal economy. The link argument is justified on the ground that such state factors as lack of growth, economic backwardness, and corruption, and individual factors, such as the need to earn extra income or engage in a second job through subordination, have respectively influenced the dualist and structuralist theories' view for point 7.

Also, Figure 5.4 shows that the SL intersects at point 8. On the one hand, point 8 represents, in the eye of the 4Cs, the argument that participants in the informal economy have productive potential, deliberately avoid cost and regulations, and informality is enterprises' reaction to bureaucratic failures. On the other hand, the IFS triangle suggests that such state factors as negative bureaucratic process, burdensome government and regulations, and such firm related factors as needing to be competitive, high taxes, cumbersome, costly registration processes, and the high costs of running the firm, as discussed in Chapters 2-4, make informal participants want to avoid costs and become more competitive and productive.

Similarly, it is shown in Figure 5.4 that the intersection of DV, point 9, and the 4Cs common theme at this point, is that informality creates a relative unfair competition for formal firms, and there will be, an increased tax base, revenue and fairness when the informal economy shrinks or is discouraged. Conversely, the IFS triangle suggests that the inducing factors are both state and individual related. Specifically, such state factors

as high and multiple business levies and charges, and individual related factors, such as deliberate strategies to defraud the state through the avoidance of regulatory institutions and costs create two types of economies, formal and informal, in which relative advantage exists in the informal rather than the formal economy.

Conclusion

I have presented in this chapter, the current study's conceptual framework. The 4Cs and IFS triangle frameworks seek to resolve the dilemma on the link between the theories and impacts of, and the methods for studying, the informal economy. By so doing, this chapter also provides the links between Chapters 2-5 and the rest of the thesis.

Additionally, it is important to sum up the main points in Chapters 2-5 by noting that each of the four theories, DLSV (dualist, legalist, survivalist and voluntarist) tends to emphasise some aspects of the IFS (individuals, firms, and state) factors over the others. However, the discussion in this chapter has shown that some overlaps exist in their propositions. This plausibly explains why no particular method for studying the informal economy is theory-specific. However, the choice of a method can significantly affect the attributes reported, and can also affect the theory thought to be applicable in such an economy.

The conclusion of this study is that, though methods are not theory-specific, they are the underpinning intuitive factors considered when deciding what methods to employ in the study of the informal economy (see Section 5.1). Following this, I shall discuss, in the next chapter, the underpinning methodology and methods for carrying out the current study.

Chapter Six Methodology and Methods

6.0 Background

In the previous chapter, I developed and analysed the frameworks (the conceptual, 4Cs and IFS frameworks) which connect the thesis chapters together. The aim in the current chapter is to consider the methodology and methods, which enabled me to carry out all analysis, using both primary and secondary materials, in this thesis. Particularly, the chapter proceeds by explaining (and differentiating between the concepts of) the methodology and methods employed in the thesis. This is followed by an examination of the direct, indirect and model-based methods employed for studying the informal economy, which are also utilised in the current study. Thereafter, I present the econometric methods for analysing secondary and primary data, and the strategy I employed for sampling the primary data utilised in the thesis. Then, I specify the model, particularly the currency and MIMIC models employed in the analysis. This is followed by a brief conclusion.

6.1 Methodology

Wagner and Okeke's (2009) observation that no method is superior to another, at least, in absolute terms, cannot be truer for other studies than those on the informal economy. Indeed, the methodological approach to research is germane to both the success of the research and how its findings are interpreted. However, the choice of methodology is not often an easy one to come by. Although methodology is the science and philosophy behind research, the brain or engine-room of the research, the debates about why a given methodology should be chosen ahead of any other has continued in the literature (see Garner *et al.*, 2009). What is without controversy, however, is the need to clearly define how particular knowledge has come about in every piece of research. This is important as there are many sources of knowledge, and an understanding of this fact enables us to know the "very strict constraints placed upon our concept of what knowledge actually is" (Adams *et al.*, 2007, pg. 25).

Two concepts, among several, germane to discussions about research methodology are ontology and epistemology. This is not surprising as the methodological stance for every piece of research is often chosen on the basis of the researcher's ontological or epistemological stand-point. While ontology means the way individuals look at or

perceive the world, epistemology means individuals' ways of knowing what they know (see Garner *et al.*, 2009). Individuals' ontological and/or epistemological stand-point influences what and how they think about a problem, how they analyse it, and the type of conclusions they draw from it.

Methodology is different from method, as the latter represents various techniques which are considered adequate by social scientists "for the creation, collection, coding, organisation and analysis of data. ... [but the former is about] using appropriate techniques in the correct way. It [methodology] is much more to do with how well we argue from the analyses of our data to draw and defend our conclusions." (6 and Bellamy, 2012, pg. 9, 11). While the entire process of conducting and implementing research describes the concept of research method, research methodology for its part is summed up as the "science and philosophy behind all research" (Adams *et al.*, 2007 pg. 25). Thus, methodology is the philosophical arguments upon which research is based. It, among others, provides the basis for understanding the findings and conclusions we claim in our research. Some of the philosophical positions found in the literature include *positivism*, *realism*, *interpretivism*, *realistic ontology*, and *realistic epistemology*. Some of these philosophical stances are briefly discussed below.

(a.) Positivism: *Positivism* arguably has its origin in logical empiricism which postulates that experience is the source of all knowledge. It argues that for any statement to be worthy of knowledge's claim, it must be observable or verifiable (see Maree, 2009). For example, if someone says blue is part of the rainbow colours, other people should be able to observe for themselves and verify that there is actually blue among the colours of the rainbow. Positivism also argues that if the phenomenon is not observable, it is not worthy of being classed as knowledge. Positivism has been heavily criticised on this ground. For example, Maree (2009, pg. 49) notes that positivism claims that "scientific knowledge can be based only on observable statements. ... [they] had a great issue with unobservables and in this sense they were anti-realist. [This means that] forces such as cause or concepts, such as truth, cannot be observed and thus cannot be meaningfully spoken about within a scientific context". The result of the criticism levelled against positivism has led to the development of other philosophical arguments which some authors (e.g., Wagner and Okeke, 2009) have categorised as anti-positivism.

Particularly, Wagner and Okeke (2009, pg. 62) note that, "anti-positivists researchers, influenced by the historicist, neo-Kantian and pragmatist philosophies, dismiss positivists as speculative and reductionist. Taken jointly, the anti-positivists believe that human life

is highly diversified and that the positivists expression of it does not reflect its diversity.” The focus of these latter philosophers shifted from what constitute knowledge to the conditions under which knowledge emerges. Specifically, they give some attention to the distinct characteristics of the human involved in the research as well as the culture of these participants. They go beyond what is observable by noting the realities and influences of what cannot be observed. One of such arguments is that presented by critical realism which attempts to stay in-between idealism and empiricism.

(b.) Realism: *Realism* is defined as the “reality that one investigates. It does not however refer only to that reality we can see and touch; if it did, it would be called empiricism. ... the realist goes further than the empiricist, in believing that there are unobservable things – stuff beyond observables such as structures, powers and mechanisms – that are worth discovering and investigating” (Maree, 2009, pg. 49-51). While realists do not discount the importance of observable, testable, and predictable knowledge, they insist that some level of subjectivity and unobservable content can influence the knowledge-gaining process. Also, the realist philosophy is of the view that our ontology and beliefs about the outcomes of our actions cannot be separated from what we consider as suitable knowledge. Thus, as noted by Sayer (1992; Gill and Johnson, 2011, pg. 205), “the nature of objects and processes (including human behaviour) does not determine the content of human behaviour, it does determine their cognitive and practical possibilities for us”.

Similarly, it has been noted by some (see examples Morgan, 1983; Carchedi, 1983; Chubin and Restivo, 1983) that the knowledge-gaining process and usage is socially-practicable, and equally an ideological, political, ethical and moral question, the same way it is an epistemological question. Consequently, these realist arguments tend to emphasise what knowledge does, particularly, its human consequences, which inevitably influences researchers in the process of gaining knowledge or defining what constitutes adequate knowledge. In fact, the realist approach tends to dissuade researchers from seeing themselves as “occupying a neutral position [..., rather, they should] accept their role as that of partisan participant in interest-laden dispute and divest themselves from the allusions of detached observers ... [since] the truthfulness of any methodologically corroborated explanation or account would ultimately be available, or tested, only through practice [reality]” (Gill and Johnson, 2011, pg. 206).

(c.) Interpretivism: For its part, *interpretivism* argues that the knowledge-gaining process is a function of the meanings and interpretations we give to human actors and

actions. In contrast to the laboratory or pure sciences' knowledge-gaining processes which largely are based on the positivist and deductive methods, the social sciences' quest for knowledge tends to follow an inner and socially orchestrated method. This route is taken by social scientists for clear reasons. One such reason is that the interpretivist approach argues that the world being studied by the social scientist is subjective and this makes it difficult, if not impossible, for assumptions to be made about it. Thus, any effort to study or discover the world has to follow the observation, data collection, and ultimately, inductive methods (see Gill and Johnson, 2011).

Additionally, the *interpretivist* approach argues that "human beings are able to attach meaning to the events and phenomena that surround them, and from these interpretations and perceptions select courses of meaningful action which they are able to reflect upon and monitor" (Gill and Johnson, 2011, pg. 190). Suggestively, studies in the social sciences are accentuated by these subjective processes, which also explain the underlying reasons behind human behaviours and actions. Again, these subjective processes plausibly underpin the interpretative approach's preference for qualitative and inductive methodologies. Essentially, the desire to know how human beings make meanings of their world tends to be the overarching goal of the interpretative approach. Their conclusion is that human actions are "purposive and meaningful rather than externally determined by social structures, innate drives, the environment or economic stimuli" (Gill and Johnson, 2011, pg. 190). Hence, qualitative and inductive techniques should be employed.

However, *interpretivism* has been critiqued on many grounds. One such criticism is that the approach's inductive methods are relatively unstructured, unreliable, and findings based on it are likely to be biased and difficult, if not impossible, to be replicated by other researchers. This criticism has been well captured by Behling (1980; Gill and Johnson, 2011 pg. 63) who note, "research methods used in the natural sciences while not immune to systematic bias do have built into them 'extensive means for protecting the researcher against personal biases' – unlike those qualitative methods which attempt to enable *verstehen* [understanding]". The debate about methodology continues. Two other philosophical arguments which have been widely used, but subject of huge debates in the literature, are quantitative and qualitative research. They are discussed next.

(d.) Quantitative & Qualitative Methods: By design, quantitative research is explicitly proposed to identify, describe, and establish the relationship between variables. It utilises large samples of data drawn from the population being studied to derive findings

which are reliable, valid and generalisable. In order to be able to manage the large volume of data used in its analyses, quantitative research largely uses computer software and inferential statistics. For its part, qualitative research involves research designs that seek to explore, understand and analyse concepts using data that are not structured. It is not quantity, frequency or amount based, but works with relatively few participants, and often uses the interpretative methods. The thrust of qualitative study is to have an in-depth understanding of what is being studied and the processes involved (see Wagner and Okeke, 2009). In addition, the preference of qualitative research is for such interpretive methods as natural observation, focus group studies, and semi/un-structured interviews. Conversely, quantitative research's preference is for experimental, descriptive, correlation and causality methods.

Justifying the Chosen Methods & Methodology

It is worth recognising that the discussion in the preceding paragraphs suggests that the philosophical stance taken by researchers also affects their choice of methods. Specifically, if one chooses the positivists' philosophy, s/he will necessarily be inclined to using deductive methods. This tends to be the philosophical stance for the pure and natural sciences, and economic sciences, as these studies often employ quantitative methods for data gathering and analyses. Conversely, the choice of interpretative philosophical stance will of necessity utilise inductive methods (see Burrell and Morgan, 1979; Gill and Johnson, 2011). Evidently, most studies in the social sciences, particularly, anthropology, sociology and psychology, tends to base their research on this philosophical position, as qualitative methods are often employed for data gathering and analysis. This orthodoxy has been well captured by Wagner and Okeke (2009, pg. 69), who observed that "quantitative research is equated to positivism and qualitative research to paradigms that oppose positivism".

Given the numerous philosophical positions, some have claimed that one method is superior to another. For example, Ferman *et al.* (1987) have argued that the most productive research tool for empirical studies is the joint ethnography-survey method. In contrast, Wagner and Okeke (2009, pg. 68) have observed that no single method is "privileged in the production of knowledge about human existence. Each method, including those that employ numeric procedures and those that employ qualitative procedures, is a lens that can bring into focus particular aspects of human being". These latter authors further suggest that the method employed for a given project is a function of how useful it is in answering the questions raised by the research. Thus, the methods

employed for any given research are underpinned by such factors as the topic being investigated, underlying theories and hypotheses, and the chosen methodology for carrying out the study.

Similarly, the debates about methodological positions show that no single method is free from criticism. Suggestively, combining two or more methods tends to improve analytical robustness, as it mitigates the negative effects of each of the methods being combined with others, and at the same time, enhances their strengths (see Smith, 1975). This technique has been termed *methodological triangulation* (see Denzin, 1970). In particular, "methodological triangulation is thought to overcome the bias associated with any single-method approach by advocating the use of multiple methods to address the same problems and research questions, on the basis that in this way, different methodological strengths will be enhanced, and inherent weaknesses will be cancelled out, to produce more convincing results" (Gill and Johnson, 2011, pg. 221). 6 and Bellamy (2012, pg. 270-271) note that triangulation "usually involves combining quantitative and qualitative data, or data from different sources, or data derived from different methods, or data collected by different researchers, or perhaps interpretations based on different theories. [...] Its primary purpose is to provide a check on external validity".

Thesis' Epistemological Position: Methodological Triangulation

Considering the discussions in the preceding paragraphs and the nature of this research, the informal economy, and without prejudice to a particular philosophical stand, the epistemological position taken for this research is *methodological triangulation*, particularly, the mid-way between *positivism*, *realism* and *interpretivism*. To encapsulate, *positivism* is a philosophical view which believes in the possibility of accurate and value-free knowledge as opposed to metaphysical and subjective ideas. To this view, something is either true or not, and studies based on it tend to make general laws used in predicting behaviour, at least in terms of probability. Similar to the positivist view, but with a degree of contrast is the *realist* philosophy, which holds all the views of the positivist except that the realist view believes that research is subjective and hence, cannot be free from values. The realist view employs scientific means, makes generalisations, verifies theories or is aware theories should be verifiable, but due to 'subjectivity' adds a health warning to such theories, as different researchers with different values can propose different theories. Conversely, the *interpretivist* view is underpinned by the nature of social research which is based on social interactions and

values. It claims that reality cannot be understood from 'what is' but through what is formed by people and society from interactions, interpretations, values, arguments, comparisons, and their ontology of the world.

In addition to the general justification for choosing the *methodological triangulation* position (see penultimate Paragraph above), I have taken this philosophical stance in the current research because it is the most suitable for this type of study (the informal economy), and provides the best way possible to answer the questions raised by this research (see Section 6.3 below for a restatement of the Research Questions). The question of whether the three philosophical positions can be combined has been answered in the literature (see Gill and Johnson, 1997; Fisher, 2004). Specifically, Fisher (2004, pg. 50) notes, "interpretivist research can convert the pattern of associations found by positivist work into a quasi-causal connection. Realist research shows there is a connection; interpretivism gives a possible description of how the connection may work". Similarly, referring to Terre Blanche and Durrheim (2006), Wagner and Okeke (2009, pg. 68) note that "researchers may work in more than one paradigm at the same time depending on practical requirements". Additionally, the *methodological triangulation* position best suits this research since it utilises both primary and secondary data in a quantitative study of the Nigerian informal economy.

Also, the potentially ambiguous nature of 'what is the informal economy' further justifies the choice of methodology. Specifically, the informal economy is defined as all productive activities which have not been officially captured but contribute to GDP. Typically, since activities in the informal economy are not officially captured, studying the concept requires a researcher to unmask and interpret traces left behind by its activities. While some of these subjective traces/evidences in the eyes of the positivist's approach may not amount or lead to knowledge, realism and interpretivism tend to claim that the former can facilitate the knowledge-gaining process. Additionally, some of the questions in my research questionnaire were designed to be open-ended questions. Generally, the analysis of responses to such questions requires coding, grouping and interpretations in a manner akin to the qualitative and interpretative methods.

Conversely, the data utilised for this study have been collected from a large number of respondents, which is akin to what is germane to positivism and quantitative studies. Similarly, I believe knowledge is verifiable; hence, I utilise quantitative data and its methods of data analysis, by employing computer software and various econometric techniques in this study. Also, I believe knowledge can be obtained through the

interpretation of social realities, as I employ both subjective/interpretative and indirect methods to study the informal economy. Finally, the potential scale of interpretation and use of the primary data collected for this study, which enables me to reveal the theory of the informal economy plausibly applicable in Nigeria, is ideally a facsimile of what is obtainable in an inductive-qualitative technique. (However, it must be noted that my aim is not to build a new theory of the informal economy).

6.2 Empirical Methods

The methods for studying the informal economy have been categorised as direct, indirect, and model methods. Some authors (for example, see Valentina and Silvia, 2011) have observed that direct methods enable researchers to unravel information about *informal employment*, whilst in contrast, indirect methods reveal information about *employment in the informal economy*. In fact, there is a clear distinction between the two concepts in the literature. The reason for this dichotomy is based on the need to differentiate between *formal employment* in the informal economy and the *informal economy's type employment* in the formal economy. On the one hand, *informal employment* refers to "the total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households, during a given reference period" (ILO, 2010, pg. 24; also see Paragraph 3 of the 17th International Conference of Labour Statisticians (ICLS) guidelines). It is made up of: individuals employed by their own enterprises in the informal economy and self-employed or own-account workers, employees holding informal jobs, and contributing family workers. On the other hand, *employment in the informal economy* refers to "the population employed in the informal sector ... [which comprises] all persons who, during a given reference period, were employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or secondary job." (ILO, 2010, pg. 17; also see Paragraph 11, 15th ICLS Resolution). I now turn to discuss in detail, the direct and indirect methods.

6.2.1 Direct Methods

Direct methods involve the use of designed instruments, interviews and observations to obtain information about undeclared incomes and other activities undertaken in the informal economy (see examples, Williams, 2006; Sookram and Watson, 2008; Isachsen *et al.*, 1982; Devey *et al.*, 2006; Fajana, 2008). Generally, several approaches are involved in carrying out surveys in the informal economy. For example, Valetina and Silvia (2011) listed five: labour force survey, household income and expenditure

surveys, informal sector enterprises survey, modules attached to household surveys, and integrated surveys. Each of the survey methods is designed to provide information unique to its name. For example, while the *household income and expenditure survey method* focuses more on income and expenditure patterns, reported and unreported, of the household, the *labour force survey method* focuses on the labour activities undertaken by participants. Another way the direct method has been employed in studying the informal economy is through tax auditing (see Schneider and Enste, 2000; Thomas, 1992; Mogensen *et al.*, 1995). In particular, this approach uses the discrepancy between the income which has been declared for tax purposes and measured income, carried out through selective checks of audited-tax returns. This process enables the researcher to obtain the amount of undeclared taxes, which is, in turn, used for computing the size of the informal economy.

On the one hand, direct methods can be very useful when the focus is on investigating the characteristics of the informal economy. Without doubt, this is the main benefit of the survey method, as it enables the researcher to get detailed information about the structure and characteristics of the individuals, households and firms operating in the informal economy. On the other hand, direct methods can only produce point estimates, and are often not useful when estimating trends and growth of the informal economy. In particular, the *tax auditing approach* has been heavily criticised for being biased, as it only represents a fraction of the informal economy (see Schneider, 2002), and *survey methods* can be influenced by the way survey instruments are designed. In addition, the survey method is often critiqued on the basis of imprecision and unhelpful responses from unwilling and un-cooperative respondents, which negatively impacts findings. Similarly, the difficulties associated with accessing informal activities through direct questionnaire, non-reliability of responses as participants do not often confess fraudulent activities and behaviour, and the difficulty associated with having the actual monetary value of activities carried out in the informal economy (see Schneider, 2002) are the other criticism the survey method has attracted in the literature.

6.2.2 Indirect Methods

Indirect methods involve the use of macroeconomic aggregates and time-series data in studying the informal economy. Indirect methods are not able to provide information about the characteristics of the informal economy, but they are very useful in estimating trends, development and growth of the informal economy. Thus, indirect methods give a more aggregated and macro picture of the informal economy. Although the informal

economy is difficult to measure, its activities leave traces behind which are used as indicators. This makes the use of time-series data-study possible. According to Schneider and Enste (2000), these traces left behind by informal activities can be pinned down to the discrepancy between national income and expenditure, discrepancy between the official and actual labour force, transactions carried out in the economy, the amount of currency demanded in the economy, or electricity consumption. Drawing extensively on the work of Schneider and Enste, each of these approaches is briefly discussed as follows.

Discrepancy method: this method compares national income (GDP) with national expenditure, which in theory should be equal but is not so in practice. This approach then assumes that the difference between the two (income and expenditure) is due to informal activities. Critics have argued that the errors and omission associated with national income accounting makes this approach unreliable. Additionally, the discrepancy method compares the official and actual labour force figures. On the basis of this, the informal economy is assumed to be expanding when the official economy's labour force participation experiences a decline. Again, critics have argued that this method cannot be reliable as other factors could be responsible for the decline in the official labour force participation rate. In addition, some individuals can keep an official job and at the same time engage in activities in the informal economy.

The transactions method: developed by Feige (1979, 1989, 1996), this approach uses Fisher's equation for the quantity theory of money, $M*V=P*T$, to compute the size of the informal economy. This approach is discussed in details in Section 6.5.1.

Currency approach: this approach was developed by Cagan (1958), and further used by Gutmann (1977), Tanzi (1980, 1983), Schneider and Enste (2000), Dell'Anno and Halicioglu (2010) to compute the size of the informal economy. Extensive discussion of this approach is found in Section 6.5.1.

The physical input approach: developed by Kaufmann and Kaliberda (1996), this approach assumes that the units of electricity consumed represent the most viable indicator of activities in the economy. The informal economy under this approach is the difference between official GDP and total electricity consumed, as the electricity/GDP elasticity has been widely accepted to be close to unity. However, this approach has been critiqued on several grounds. For example, not all activities in the informal

economy would be captured by this method, as some of the latter do not require electricity in their performance.

6.2.3 Model-based Methods

Model-based methods involve the use of models to investigate the possible causes and effects of the informal economy. One such technique that has successfully been used in the informal economy literature is the multiple cause, multiple indicator (MIMIC) method which is based on the statistical theory of latent variables (structural equation modelling), which considers multiple causes and indicators of the informal economy (see Dell'Anno, 2007). This approach is extensively discussed in Sections 6.5.2 & 6.5.2.1.

6.3 Data analysis

Before discussing the procedure for data analysis, it is appropriate to restate the questions I set out to answer in this study. The research questions are:

1. How does the informal economy impact on official GDP growth in Nigeria?
2. What are the characteristics of the informal economy in Nigeria, and what does a regional analysis add to our understanding of the informal economy literature?
3. What are the determinants of the informal economic model in Nigeria, and what can other countries with informal sectors of similar size learn from the Nigerian experience?
4. In which way(s) and to what extent is the informal economy related to real macroeconomic variables, and small businesses in Nigeria?
5. What do the results of this project suggest should be the policy response to the informal economy?

To begin, this research utilises the work of Fisher (1911) on the demand for currency, its application to the study of the informal economy (see Feige, 1979; Tanzi, 1980, 1983; Dell'anno and Halicioglu, 2010), and the multiple-cause multiple-indicator (MIMIC) model employed by Schneider *et al.* (2010). The aim is to use secondary data with relevant econometric techniques, Currency and MIMIC techniques in this case, in EViews and SPSS-AMOS to measure the size of the Nigerian informal economy, which seeks to answer research question 4 and partly questions 1, 3 & 5. Relevant annual data covering

1996 to 2011 (used for the Currency model), and 1970 to 2012 (used for the MIMIC model) have been obtained from the Central Bank of Nigeria, National Bureau of Statistics, Federal Inland Revenue Services (FIRS) of Nigeria, and World Bank websites.

The informal economy, by its nature, is difficult to measure as its measurement involves attempts to study empirically what officially has not been recorded or measured. However, traces left behind by its activities, mode and means of transactions, anticipated impact and effects enable us to achieve a measure. To produce a robust result therefore, there is need to employ robust techniques, which justifies the decision to employ two sophisticated approaches, currency and MIMIC methods, to estimate its size. By so doing, questions relating to the impact of the informal economy on official GDP growth, and the extent, nature and direction of the relationship between the informal economy and macroeconomic variables in Nigeria will be answered at this stage. This is analysed in Chapters 7 and 9.

In addition to the use of EViews and SPSS-AMOS in analysing the secondary data, an administered structured questionnaire is used to collect primary data, cross-sectional data on the Nigerian informal economy and is analysed using SPSS and SPSS-AMOS. In particular, SPSS is used to analyse the demographic and socio-economic features of respondents, run regressions, and establish empirical relationships. For its part, SPSS-AMOS enables me to carry out structural equation modelling (SEM) of the Nigerian informal economy, using the MIMIC approach and the survey data obtained. By this, I am able to identify empirically the factors which determine the Nigerian informal economy. The data and information generated from the foregoing process will enable me to fully answer research questions 1-5, as analysed in Chapters 7-9. In sum, this research is in two parts: Part 1, focussing on the big picture, uses aggregate time series data to compute the size of the informal economy in Nigeria; and Part 2, attempting a detailed analysis, uses micro survey-data.

The justification for choosing the Currency and MIMIC approaches: The Currency and MIMIC approaches have been carefully chosen, as they represent the best techniques to carry out this study. Specifically, these approaches utilise variables, information and data that best suit the Nigerian economy. An analysis carried out with the two methods, and the accompanying policy recommendations, will be economically more relevant to Nigeria and its policy makers. For example, I considered using the physical (electricity) input approach, but realised that the approach will not generate reliable results for a Nigeria's study for two reasons. One such reason is the fact that electricity supply (and

usage) is not regular and stable in Nigeria. This has compelled many households and firms to generate their electricity, which is often not captured by official record. Hence, data on electricity input are unreliable. Arguably, an analysis conducted with such data will also not be reliable. The second reason for rejecting the physical input method is outlined in Section 6.2.2, particularly, not all activities in the informal economy are captured by this method.

Also, the Currency and MIMIC approaches have been chosen as they utilise variables, for example, macroeconomic variables, which enable me to trace directly the effect of the informal economy on the Nigerian economy. By knowing how each variable relates to the Nigerian informal economy, I am able to make recommendations that are relevant to policy makers, the informal economy and the overall Nigerian economy. The two approaches contrast the discrepancy method, which merely compares a country's national income (and official labour force figures) with its expenditure (and actual labour force figures). Clearly, relative to the Currency and MIMIC approaches, the discrepancy method does not provide sufficient information. Also, as noted in Section 6.2.2, the discrepancy approach's assumption is faulty, as error and omission in accounting, not informal activities as postulated by the discrepancy approach, can be responsible for the difference between national income and expenditure. Similarly, other factors, rather than the informal economy, postulated by the discrepancy approach, can be responsible for the difference between actual and official labour force figures.

Finally, the MIMIC method is chosen because it is arguably the most robust technique. Conversely, the currency approach is less robust. For example, any attempt to take out one variable from those specified in Equations 6.1 & 7.1 render the regression results for remaining variables statistically non-significant. This is not surprising, considering that Tanzi's method, which I build upon, was also criticised for using "parameter estimates" that "are not very stable" (Schneider *et al.*, 2010, pg. 36; Frey and Pommerehne, 1984; Thomas, 1999), although Kirchgaessner (1984) and Schneider (1986) reported robust results in their use of the same approach. While the currency approach is arguably less robust and has been critiqued (see Section 6.5.1), it was germane for me to use the method for two reasons. First, it generates results which are used as part-input for the MIMIC approach. Secondly, I wanted to employ two methods to compute the size of the Nigerian informal economy in order to compare and contrast the results emanating from both methods. With the exception of the MIMIC approach, it is imperative to use the currency approach for a Nigerian study, as, for the reasons discussed, it has advantages over other methods.

6.4 Sampling strategy:

Data have been collected via structured questionnaires and stratified random sampling. The plan was to collect samples from members of the Federation of Informal Workers Association of Nigeria (FIWON) through post, emails and personal administration. FIWON is the only organisation representing informal workers in Nigeria and they have a large database which would have enabled me to reach a wide membership, and work within the time constraints for this study. This was one of the practical steps adopted to ensure doubts and questions about the scope of participants and veracity of the results I can gather, as with all good surveys, are addressed in the design stage. In addition, this practical step was taken in order to limit the likelihood of bias in the results, and improve on similar surveys done in developing countries.

Typically, "following the adoption of the 1993 definition [of the informal economy, household surveys, and especially mixed (household and enterprise) surveys, have been recommen[d]ed as the best means to capture the informal sector" Becker (2004 pg. 16). Such surveys usually involve a two-stage process: Stage 1 involves household surveys to identify those participating in the informal economy, and Stage 2 involves an in-depth study of those identified in Stage 1. In this study, collecting samples from FIWON effectively cut out Stage 1 and enabled me to go straight to Stage 2. This saved time, cost, and made it possible for me to collect high quality data, as those who actually engage in informal activities are those participating in the research. Additionally, this proposed method made it possible for me to limit the likelihood of imprecise and unhelpful responses. Motivated by Williams and Round (2009), the plan was to sample 30 members from each of the 36 states of Nigeria, taking every alternate name, with members' names arranged in alphabetical order, in order to generate a stratified random sample. This was to generate a total of 1080 observations, which would therefore be stratified according to region.

Also, research questionnaire was designed with three main objectives in mind. First, it was meant to provide the information necessary to answer the questions raised by this research. Secondly, it was designed to limit the problems of unreliability often associated with surveys. Hence, some similar questions were asked in different ways to test for consistency of responses. Finally, it was meant to provide information for the different aspects, characteristics and categories of participants in the Nigerian informal economy, in line with the practice in the literature (see Section 6.4.1). It has three sections, and a

total of 93 questions. Table 6.1 and Section 6.4.2 set out what each question was intended to answer (see Appendix).

Thus, the proposed data gathering method facilitates two aims. Firstly, it allows me to build a picture of the informal sector by providing crucial information on the features of the informal sector in the Nigerian economy. Secondly, it provides the data to analyse the informal economy using rigorous econometric techniques. Based on the latter, I am able to investigate the impact of the informal economy on employment, consumption, investment and growth of the economy. In so doing I can gauge the importance of the informal sector in the Nigerian economy. An investigation of the characteristics of the informal sector in the Nigerian economy can provide information that can be especially useful in the formulation of social and economic policies. For example it would provide information on the specific economic activities carried out, share of household, and time spent, in the informal economy. Similarly, it would provide information about the gender, age, income, and expenditure pattern of individuals participating in the informal economy. Also I can gain insights as to whether the informal sector is an engine of economic growth or a safety net for marginalised individuals in the economy.

The questions asked in the survey therefore, provide information required to answer research questions, hence fulfil the research objectives. Specifically, research questions 1-4 are answered by these methods. For example, analyses of the responses to questions relating to the characteristics of participants, and the regional prevalence of informal activities in Nigeria, will provide answer to research question 2. Similarly, analyses of the responses to questions relating to causes, impact of informal economy, and its impact on, and nature of the relationship with small businesses and macroeconomic variables in Nigeria will enable me answer research questions 1, 3 & 4.

6.4.1 Modifying the Proposed Sampling Strategy

The initial plan was to collect all primary data through FIWON. However, it did not quite work out as planned for two reasons, the security situation in Nigeria and the initial response rate. The security situation in parts of Nigeria prevented data collection in those regions. As a result, none of the states in the North-East region of Nigeria (where an Islamic set, Boko Haram, has claimed responsibility for the killings of thousands of civilians and members of the Nigerian security forces) was sampled in this research. Effectively, this introduced a geographical bias, which, in turn, possibly introduced regional economic indicators' biases to the survey process. Although this is difficult to

confirm, given the absence of any existing literature on the regional prevalence or characteristics of the Nigerian informal economy, reducing the effects of these possible biases on the overall sample becomes a key objective, as explained below.

The available alternative was to administer the questionnaire electronically. That I did, but the response rate was very low, with only 55 responses received. Again, the questionnaire administered through FIWON produced only 92 responses. The 92 responses were obtained after several efforts: I sent the questionnaire to them (i.e., FIWON members) by email, followed up with phone calls, and had a meeting with them in Lagos, Nigeria. To overcome the preceding challenges, and bearing in mind that this is a quantitative study, I decided to choose by random, willing members of the public to administer the questionnaire. This random process involved selecting every alternate adult that was willing to complete the questionnaire, and in instances where an individual declines, the next person is sampled and the one after is skipped (which is akin to the spatial random sampling method employed by Williams and Round (2009) in a Ukrainian study). Two options were open to me. The first option, which is based on Reddy *et al's* (2003 pg. 137) "street-by-street survey" of members of the public who cooperate, was to go into the street and stop every alternate willing adult to complete the questionnaire, however, I thought that would be risky and the response rate could still be low.

The second option was to, *modify* Reddy *et al's* (2003) strategy, go to places where people are gathered in a relaxed atmosphere as that would enhance the chances of getting large, good and quality responses. Then, I went for the second option without compromising the strategy to sample every alternate person. This took me to different places, churches, business premises, markets, higher institutions of learning, and public motor parks/garages. With hindsight, I would keep records of the number of participants from each of these locations, in each region, as such information could make my work richer. However, a breakdown of responses from each location is not available, as my focus, considering cost and time constraints, was on sampling 30 participants from each state (and not location). Based on this, I acknowledge and caution that there is a chance that my data may suffer from location and non-representative sampling bias.

One way of correcting such bias is to weight the data collected. Again there are debates about such a practice (see Kish, 1992; Gelman, 2007; Lohr, 1999). For example, Kish (1992 pg. 127), who presents a balanced argument about weighting, also notes five shortcomings: complications arising from complex statistics, which can lead to mistakes,

“increased variances” resulting from random weighting, “small biases”, “model dependent theoretical arguments”, and “public relations or ethics” of weighting. Similarly, Gelman (2007 pg. 163) acknowledges, “it is not generally clear how to apply weight to complicated estimands [..., and] Creating practical weights require arbitrary choices about inclusion of weighting factors and interactions, pooling of weighting cells and truncation of weights.

Based on similar reasons, weighting was not conducted on the sample for this study. Particularly, the choice of weighting factors to use in this study triggered two questions: should weighting be done on the basis of Nigeria’s total population, or on the basis of data collected from each location? If the former, the power of the sample might be overstated, as the total sample size (641) is only a fraction of the Nigerian population (168m), and if the latter, which sounds reasonable in theory, several complications can also arise. For example, for location to be an accurate weighting factor, the number of all locations, similar to where samples are collected, in a given region, and the population of all citizens likely to be present at such locations vis-à-vis the entire region, at any point in time, will have to be considered. A more practical example may help here. If samples collected from a given location, say a church, is to be weighted, should it be done against: the number of churches in that region? Or the population of that particular (or all) church(es) in that region?, or against the (number and/or population) of other locations (e.g., motor parks, universities) in that region? This brings several complications, especially the issues of having weights within a weight.

Following careful considerations of these complications, the decision was to use the data without weighting, as this avoided the arbitrariness of decisions over weightings. It is important to reiterate that data were collected from two categories of participants: FIWON (pre-selected informal participants) and non-FIWON members. Concerns about sample biases are applicable to only non-FIWON respondents, which also were not weighted, as noted in the previous paragraph. Additionally, it is safe to argue that these biases are quite possibly modest, considering that the non-FIWON surveys were collected from different locations, hence diverse group, since different people go to these different (surveyed) locations. Considering this, the justification for not weighting the samples, and other constraints: cost, time, low response rate for FIWON respondents, and security challenges in parts of Nigeria, the decision was to use the data I was able to collect, i.e., combine the data from non-FIWON and FIWON respondents. However, responses from non-FIWON were scrutinised for consistency and reliability by

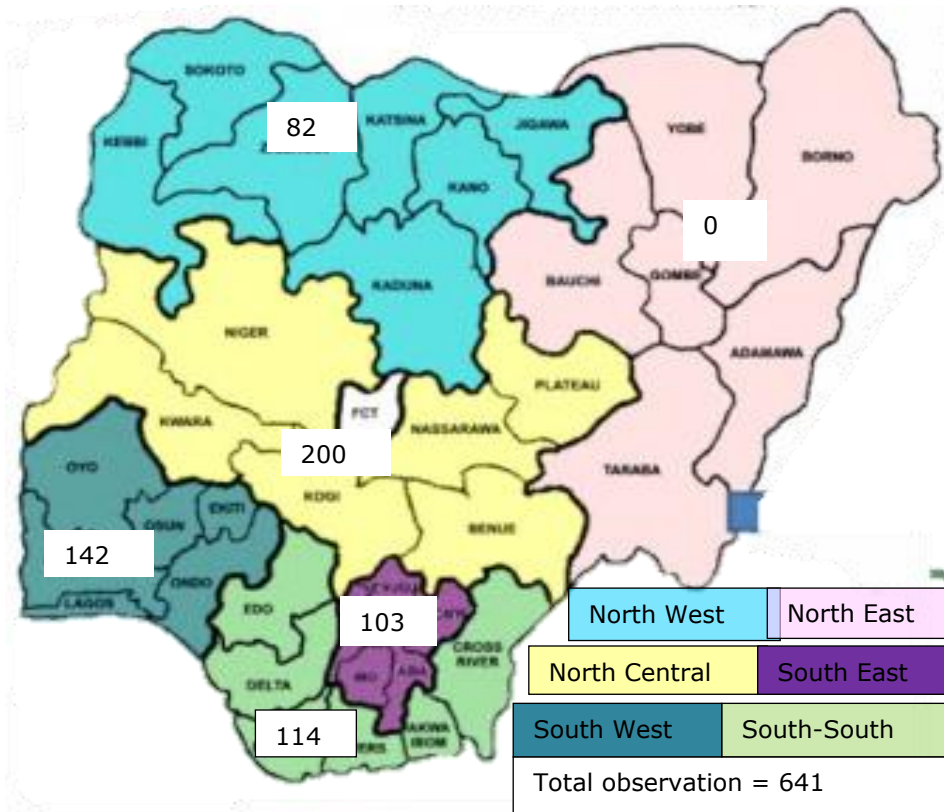
comparing/contrasting them with FIWON members' responses, and by using literature-led defined criteria (see Sections 6.4.2; 6.4.3).

Thus, I am confident that the modification of the initial sampling-strategy will not significantly, if at all it does, affect the veracity of the result, analyses and output of this thesis. Although it reduced the number of responses obtained from those who theoretically are actually engaged in the informal economy through FIWON, it opened up other windows of analysis, and possibly other opportunities to make an original contribution to knowledge, as responses from participants in informal activities are compared and contrasted with those not preselected as working in it. Thus, the biases associated with responses from only informal sector participants (see Arimah, 2001) are effectively eliminated. For example, in his study of the linkages between formal and informal sector enterprises in Nigeria, Arimah (2001) admitted to the possibility of biases and inconsistencies of the responses from participants as affluent participants tend to underreport some of their income and activities, whilst less affluent participants tend to over-report. A neutral view creates balance, and I ensured each of these separate groups was recognised in the analyses.

In addition, I gave greater weight to responses from FIWON and other individuals who actively engage in informal activities when analysing some questions. This was to ensure that relevant and accurate analysis was carried out using responses from those who actually engage in the informal economy. For example, to investigate the characteristics of the informal economy and its participants, the required valid-information must necessarily come from those who actually undertake an activity in the sector.

Finally, the collected data (641 responses) were stratified according to regions, which enabled me to carry out all analyses as initially planned. Specifically, I was able to collect samples from 23 out of 36 states plus the federal capital territory. More importantly, the 641 responses are drawn from 5 of the existing 6 geo-political zones/regions in Nigeria (see Figure 6.1); the sixth (North-East) zone, not covered, is the region largely affected by security challenges.

Figure 6.1: Map of Nigeria, depicting number of responses from the six regions



6.4.2 Questionnaire design

The aim of this sub-section is to describe the process involved in designing the research questionnaire (see Appendix). To begin, two factors influenced the choice of questionnaire: the need to answer research questions, and an attempt to be consistent with existing literature. Particularly, questions built into the research survey instrument were influenced, significantly, by the need to design a questionnaire that is able to solicit information capable of answering research questions. Yet, to ensure reliability and consistency with existing literature, the questionnaire was refined by reference to previous studies. One such literature is the definition of the informal economy adopted at the 15th International Conference of Labour Statisticians (ICLS: 1993), as well as the 17th ICLS (2003), which broadened the scope of the former. Similarly, existing informal sector questionnaires (see examples: Hussmann, 2004; Myanmar, 2009; Maligalig and Guerrero, 2008; ADB, 2011; Becker, 2004; UN, 2007; Simons and Lake, 2006) guided, significantly, the content of thesis' survey instrument. For example, Becker (2004) discusses survey instruments of the informal economy that are based on the informal economy's: general characteristics (Amin, 2002; Horn *et al*, 2002; ILO, 2002), activities (economic units/enterprises) (ICLS, 1993; World Bank, 2003), employment categories

(Amin, 2002; World Bank, 2003), location of actors, and income and employment enhancing potential (Oberai and Chadha, 2001; ILO, 2002). Each category has its subdivisions. For example, employment has three variants: self-employed/own-account workers (Amin, 2002), wage workers (ILO, 2002), and employers (Amin, 2002), which define the informal economy. All of these are captured within thesis survey instrument.

There are suggestions that a particular definition, rather than another, should be adopted when designing the informal economy's questionnaire, as different definitions emphasise different aspects of the informal economy. In fact, "following the adoption of the 1993 definition, household surveys, and especially mixed (household and enterprise) surveys, have been recommen[d]ed as the best means to capture the informal sector" Becker (2004 pg. 16). Such surveys involve, first, "selecting a representative sample of households and, in these selected households, to identify those own-account workers and employers, who according to the new definition, belong to the informal sector" (ibid). However, I did not follow these two stages. Instead, I took a one stage-survey approach by administering questionnaire which solicit for both the information often asked at different stages of the survey process and those defining various aspects of the informal economy into my survey instrument, because observing stages 1 and 2 in a country-wide study of Nigeria is not realistic for a PhD study due to cost and time constraint. Also, there are evidence that stages 1 and 2 can be conducted simultaneously, for cost saving purposes (Maligalig and Guerrero, 2008), or other complications (see Reddy *et al*, 2003). Finally, by expanding the definition given at the 15th ICLS session, the 17th ICLS (2003) shows that no single definition captures all aspects of the informal economy, neither will a survey instrument based on a single definition.

Specifically, to capture all aspects of the informal economy in Nigeria, as well as generate statistics that are internationally comparable (see Maligalig and Guerrero, 2008), sufficient questions were built into thesis survey instrument. For example, the important variables that represent different definitions and survey approaches of the informal economy are provided in Becker (2004), Hussmanns (2004), and Myanmar (2009). The thesis questionnaire was designed to ask questions about these variables. The strength of my method is that it covers all aspects of the informal economy (as severally defined) in Nigeria, considering that a single Nigerian government definition of the informal economy, to the best of my knowledge, does not exist. (Thus, this study is the first, that I am aware of, to be conducted to close this gap - the definition and measurement of the informal economy in Nigeria).

Potentially, asking questions that cover all aspects of the informal economy can also be a weakness, especially if generated information is not carefully analysed. For example, people who may not be actively engaged in the informal economy can be erroneously captured as operating in it, which, in turn, can generate non-representative results/characteristics of the informal economy. This tends to be a general challenge with conducting research on the informal economy. For example, Becker (2004 pg. 17) admits that “Mapping the informal economy so as to comprehend its size, composition and evolution is a difficult and inevitably imprecise exercise. It is also difficult to make international comparisons as different definitions are used. Furthermore, within different countries, the informal economy is highly segmented by location of work, sector of the economy and status of employment and, across these segments, by social group and gender”. However, I have attempted to limit the effects of this challenge by using literature-led defined criteria to categorise collected data (see Section 6.4.3). Additionally, responses from non-FIWON members were compared with those generated from FIWON members, and non-consistent responses were eliminated from the informal economy database. Finally, the mixed-methods approach adopted in this study also helps limit the weaknesses of one element, overall.

The remainder of this section discusses all the questions in the questionnaire, the information they provide, and how they are related to the research questions. It begins with Table 6.1, which presents a summarised version of the crux of the discussion. Thereafter, the main themes are discussed.

Table 6.1: Description of research questionnaire & how each question is used.

Question No. (in questionnaire)	What it analyses	Research question answered						Other uses
		1	2	3	4	5	6	
1 DEMOG	Demographic – age	2		2	3			
2 DEMOG	Demographic – sex	2		2	3			
3 DEMOG	Demographic – marital status	2		2	3			
4 DEMOG	Demographic – state of origin	2		2	3			
5 DEMOG	Demographic – religion	2		2	3			
6 DEMOG	Demographic – SRWB	2		2	3			
7 DEMOG	Demographic – NO. in house			2	3			
8 DEMOG	Demographic – NO. dependent		1	2	3			
9 EMPL	Main job	2	1	2	3			BDB
10 EMPL	Second job	2	1	2	3			BDB
11 EMPL	Why second job		1	2	3			
12 ECO INC	Income, total	2	1	2	3			
13 ECO INC	Savings		1	2				
14 DEMOG	Education, level	2		2	3			
15 DEMOG	Age stopped schooling			2	3			
16 ECO	NO. of relations abroad			2				
17 ECO	No. of locations		1		3			
18 ECO	No. & age of children		1	2				
19 ECO	...Live in own house		1	2				
20 ECO	...Live in urban area			2				
21 ECO	Remittance from relations abroad				3			BDB

22 EMPL	Have a job/biz	2	1	2				
23 EMPL	... fulltime	2		2	3			
24 EMPL	... seasonal			2	3			
25 DEMOG TU	Trade union	2		2	3			
26 EMPL	Second job/biz			2	3			BDB
27 EMPL	Activities at location			2				
28 SPRT	Training received	2		2				
29 EMPL	Public service job			2	3			
30 ECO INC	Frequency of remittance from relations							BDB
31 EMPL SAL	Frequency, salary/wages			2	3			
32 EMPL INC	Main job income (proportion)		1	2	3			BDB
33 EMPL	Job/biz ownership/employer	2		2				BDB
34 EMPL	Job/biz location type	2		2				
35 SPRT	Union assist			2	3			
36 ECO INC	Income, level	4	1	2	3			
37 EMPL	Why part time		1	2	3			
38 EMPL	NO. of employee	2	1	2				
39 EMPL	Job/biz ownership/employer	2	1	2				BDB
40 SIZE EF	Size of IE, region	4	1	2		4		
41 CAU/EF POV	Poverty	4	1	2		4		
42 CAU/EF POV	Poverty	4	1	2		4		
43 CAU EMPL	Unemployment	4	1	2	3	4	5	
44 CAU/EF	Economically good/growth	1		2		4	5	
45 CAU TAX	Tax evasion	1		2		4	5	
46 CAU/EF	Economically harmful	5		2		4	5	
47 CAU TAX	Tax burden, formal sector			2				
48 CAU	Over-regulation			2	3			
49 CAU	Corruption/bribe officials	1			3			
50 CAU	Tax evasion/avoidance risk				3			
51 CAU	Why IE	3	1	2	3			
52 CAU	Why IE	3	1	2	3			
53 EMPL H	Hours worked	1	1	2		4		
54 CAU/EF	Trade union name							
55 CAU/EF	Name corrupt agency			2	3		5	
56 CAU/EF	How much bribe							
57 ECO	Contributions	1	1			4		
58 SIZE EF	Size of IE, national	4	1			4		
59 SPRT	Training required			2	3		5	
B1 EMPL	Job age							NU
B2 EMPL	Employer	2	1					BDB
B3 EMPL	Salary payer/employer							NU
B4 EMPL COND	Contract given/agreed	2		2	3			
B5 EMPL COND	Pension funds contribution	2		2	3			
B6 EMPL COND	Paid annual leave	2		2	3			
B7 EMPL COND	Paid sick leave			2	3			
B8 EMPL COND	Paid maternity leave	2		2	3			
B9 EMPL COND	Dismissal notice	1		2	3			
B10 EMPL COND	Dismissal compensation	1		2	3			
B11 EMPL	Frequency, salary/wages.			2				BDB
C1 CAU/EF	Business/enterprise age		1	2				
C2 CAU/EF	Business reason			2				
C3 CAU/EF	Biz registration	2		2	3			
C4 FIN	Capital source			2	3			
C5 ECO LINK	Stock of goods source	4	1	2		4		
C6 ECO LINK	Customer source	4	1	2		4		
C7 FIN	Biz bank account			2				
C8 FIN	Applied for bank credit			2	3			
C9 FIN	Bank credit granted			2	3			
C10 FIN	Microfinance services, others			2				
C11 FIN	Applied for microfinance credit			2	3			
C12 FIN	... granted			2	3	4		
C13 FIN/CAU	Biz profitable			2	3	4		
C14 FIN	Bookkeeping type		1	2				

C15 FIN	Reasons for bank credit failure			2	3		5	
C16 FIN	Reasons for not applying			2	3		5	
C17 FIN	Reasons for microfinance credit failure			2	3		5	
C18 FIN	Other supports			2			5	
C19 FIN	Regular financing source			2	3		5	
C20 FIN EF	Bank credit effects			2			5	
C21 CAU/EF	Challenges			2	3			
C22 CAU/EF	Biggest problem	5		2	3		5	
C23 CAU/EF SP	Help required	5		2	3		5	
C24 CAU	Quick decision – entrepreneurship.		1		3	4		
C25 CAU/EF	Obstructions from Govt.				3		5	
C26 CAU	Future plan.		1		3	4		

Note: DEMOG, EMPL, ECO, INC, SPRT, CAU, EF, COND, FIN and LINK are respectively, demographic, employment, economic, income, support, cause, effect, conditions, finance, and linkage factors. NU is not used, BDB is build database.

DEMOGRAPHIC: questions 1-8, 14-15, and 25 were designed to explore respondents’ demographic features (see Myanmar, 2009; Hussmann, 2004; Sookram and Watson, 2008). Specifically, questions 1-8, in ascending order, are respectively questions about respondents’ age, sex, marital status, state of origin, religion, state of residence, work or business (simply RRWB), number of people in the household, and number of dependants. Similarly, questions 14 and 15 are about respondents’ level of education and the age they stopped formal education. Finally, question 25 is about being membership of a trade union or professional body.

EMPLOYMENT: questions 9-11, 22-24, 26-27, 29, 31-34, 37-39, 43, 53, B1-4, and B11 were designed to provide information about the type, nature, and conditions of respondents’ employments (see Myanmar, 2009; Hussmann, 2004; Sookram and Watson, 2008; ADB, 2011). In particular, questions 9, 10 and 11 are respectively asking about respondents’ main, second, and reasons for a second, employment. Questions 22-24 and 26-27 were asked, to show the consistency and reliability of the responses to questions 9-11. Hence, respondents were asked if they had a job (22), second job (26), or carry out another activity at their work place (27). Additionally, questions 23, 24 and 29 respectively ask if respondents’ jobs are fulltime, seasonal, and if they had ever worked in the public service. It is worth noting that having a second, seasonal, and part-time job were factors identified to have influenced growth in the informal economy in the early debates. Also, it emerged recently that most of those engaged in the informal economy are either past or current public/civil servants.

Additionally, questions 31 (and B11), and 32 are respectively about respondents’ salary/wages frequency and proportion of income earned from main job. These were again designed to confirm those operating in the informal economy, as respondents who earn wages on a daily, weekly, or anytime activity is carried out basis, are likely to be

operating in the informal economy. Similarly, respondents who do not earn all their income/wages/salary from main employment either have a second job (hence, operate in the informal economy) or receive remittances from relations abroad. However, if such respondents do not have relations abroad, I assume the first argument is correct.

Questions 33 (and 39), and 34 were designed to find out about the type and nature of jobs undertaken by respondents, as the questions, respectively, seek information about the ownership and type of location of respondents' jobs/businesses. For example, if main job is family/individually owned, respondent is likely to be self-employed, hence, engaging in the informal economy. Similarly, if main job or business location type is a kiosk, workshop, client's home, street stall, or no fixed location, such respondent is likely to be carrying out his/her job in the informal economy. Responses to these questions are confirmed for consistency by questions B1-3, which seek information about current employer and salary/wage payer.

Question 37 seeks information about respondents' reasons for having a part-time job. Is it because full-time jobs are not available, and in this case, they are likely to be carrying out some activities in the informal economy. Question 43 seeks to confirm the argument which follows question 37 by asking if respondents will still engage in the informal economy, should the government provide employment for all citizens. Similarly, question 53 seeks information about the number of daily hours participants put into their main jobs. For example, if time spent at work is significantly different from the official working day of 9 hours, then it is likely that affected respondents carry out some of their jobs in the informal economy. Question 38 seeks information about the number of employees at respondents' place of work. Such information also enabled me to confirm if a respondent operates in the informal economy or not. For example, if numbers of employees are less than 9, the enterprise is small-scale and affected respondents are likely to be operating in the informal economy. Finally, question B4 seeks information about the condition of respondents' employment. Conditions are discussed in detail below.

INCOME: questions 12-13, 30, 32, and 36 were designed to provide information on income (see Hussmann, 2004; Sookram and Watson, 2008; ADB, 2011; Arimah, 2001; Becker, 2004). Specifically, while questions 12 and 13 respectively seek information about respondents' total monthly income and savings, question 32 seeks information about the proportion of income earned from main employment. The information about the latter enables me to work out those who are actively engaged in the informal economy. For example, if any respondent does not earn all his income from main job

(question 32), and has no access to remittances (question 30), s/he is likely to be earning some income from the informal economy. Similarly, this information enables me to work out the income earned from, and by, participants in the informal economy. Additionally, question 36 seeks information about the level of income and standard of living of participants. This is important as it enables me to find out if participants in the informal economy are poor, earn sufficient income. Hence, it enables me to know if the informal economy is an engine of growth or a safety net for the poor.

SUPPORT: questions 28, 35, 59, and C23 were designed to provide information on various forms of support received or required by participants in the informal economy (see Reddy *et al*, 2003; ADB, 2011). Question 28 was designed to find out if respondents have received any form of training concerning their job. Similarly, responses to questions 59 and C23 respectively enabled me to know the type of training and support desired by respondents. These are important as most participants in the informal economy have been found to lack requisite skills and support. Question 35 seeks information about the type of support received from a trade union. This is intended to show if becoming a member of a trade union is of benefit to participants in the informal economy or not.

ECONOMIC: questions 12-13, 16-21, 30, 36, and 57 were designed to show respondents' economic conditions and their impacts on participants and the economy (see Sookram and Watson, 2008; ADB, 2011). Specifically, while questions 12 and 13 seek to find out the respective total income earned and savings made by respondents, questions 16 and 21 were meant to confirm if the income and savings are influenced by remittances. This information is important as it enables me to know the economic effect of the informal economy on participants and the economy. For example, if the informal economy enables participants to earn sufficient income to build a good house (question 19), it suggests that the sector contributes meaningfully to the economy. Similarly, unravelling the economic effect of the informal economy is the overarching goal of question 17, which seeks information about the number of locations in which participants carry out their activities. Operating multiple locations can facilitate distribution of goods and services, and create jobs for others. Also, unravelling the economic effect of the informal economy is the focus of question 57, as it seeks information about the contribution of the informal economy.

CAUSE: questions 41-52, 54-56, C1-3, C13, and C21-26 were designed to unravel the factors which cause or determine the Nigerian informal economy (see Sookram and

Watson, 2008). Specifically, to find out what the causal factors for the informal economy are, respondents were asked to indicate the extent to which they agreed or disagreed with the statements in questions 41-50. In particular, questions 41 (and 42), 43, 44 (and 46), 45 (and 47), 48, 49 and 50 are about the relationship between the informal economy and each of poverty, unemployment, sector's activities, taxes, regulations, corruption, and risk of tax-evasion respectively. Similarly, while question 51 asked participants to rank the factors which make them, question 52 asked respondents to rank the factors which make others, to engage in the informal economy. The idea is to compare both responses, as it has been suggested (see Arimah, 2001) that participants in the informal economy often do not give accurate information about themselves, but are happy to speak about others.

Questions 54-56 seek information about other factors which cause expansion in the size of the informal economy. Specifically, question 54 asks for the name of respondents' trade union, which enables me to know if the same name will emerge as agent/agency which disrupt participants' operations (question 55), earn participants' bribe money (question 56) or if it is the government's agent. Questions C1-3 were designed to show if age of business, reasons for choosing a business type, and registration status, respectively, influence the size of the informal economy. Also, questions C13, C24, and C26 were meant, respectively, to show if there is evidence of such entrepreneurial factors as running a profitable venture, making quick decisions, and the ability to plan and build an enterprise that would survive for many years, influence the expansion of the informal economy. Finally, questions C21 (and C22, C25), and C23 were designed to show the respective challenges and needs which affect the informal economy.

EFFECT: questions 40-46, 54-56, 58, C1-3, C21-23, and 25 were designed to unravel the impacts of the Nigerian informal economy and its activities on the Nigerian economy and participants in the sector (see ADB, 2011; Sookram and Watson, 2008). Specifically, questions 40 (and 58), 41 (and 42), 43 (and 46), 44, and 45 respectively, seek to show the role of the informal economy in job creation, poverty reduction, unemployment reduction, and government tax-revenue. Similarly, questions 54, 55 and 56 respectively seek information about the effects of trade union, government agencies, and bribes for government officials on respondents and their activities in the informal economy. Also, questions C1-3 seek to unravel the effects of business age, reason for choosing a particular business, and business legal status, on participants and rate of participation in the informal economy. Finally, questions C21, C22, C23, and C25, respectively, were designed to provide evidence on how the operational challenges, problems confronting

participants, help required by participants, and contributions of the informal economy, affect the economy, participants and the informal economy's participation rate.

Notably, question 40 / (58) asks respondents to choose from a scale of 1 to 10, a number which represents the number of people, from every 10 Nigerians, who operate in the informal economy in their region / (nation). Similarly, on a likert scale of five options, starting with strongly agreed and ending with strongly disagreed, respondents were asked to indicate their perception of the informal economy in the following statements: People are poor because they work or do business in the informal sector as participants are disadvantaged (question 41), The informal sector helps people that are poor to overcome poverty in Nigeria (question 42), If government can provide job for every Nigerian, whether anybody would participate in informal activities (question 43), Informal sector activities are good for Nigeria's economy (question 44), Government does not have sufficient revenue because informal workers do not pay tax (question 45), Government should discourage the informal sector as it is harmful to the Nigerian economy (question 46), Formal (government and big company) workers' pay too high income tax (question 47), Government regulation of businesses is too much (question 48), It is very difficult to do business in the informal sector without giving bribe to some-law enforcement agents (question 49), and It is very risky if tax authority finds out that you do not pay tax (question 50).

CONDITIONS: questions B4-10 were designed to find out what the operating or working conditions of those engaged in the informal economy are (see Hussmann, 2004; Becker, 2004; ADB, 2011). Particularly, B4-10 seek to unravel if respondents have a written contract/agreement for their jobs, benefit from pension fund-contributions, paid-annual, sick and maternity leave, and termination benefit. This information is important, as the conditions of employments in the informal economy have been reported to lag behind the international standard (see ILO, 2009), as participants lack job-security, such as the ones listed above.

FINANCE: questions C4, and C7-20 were intended to answer all questions relating to the financial and bookkeeping activities of those engaged in the informal economy (see ADB, 2011). Specifically, these questions seek to provide information on respondents' sources of capital and regular funding, bookkeeping, access to credits from banks and other micro-finance institutions, the challenges which accompany pre- and post-loan requests and loan requests' successes and failures, reasons for not applying for bank facilities, and the benefits of using a bank facility.

LINKAGE: questions C5-6 were designed to show the type and level of linkages which exist between the formal and informal economies (see Arimah, 2001).

6.4.3 Building the Nigerian informal economy's database

As explained in Section 6.4, my aim was to collect data from those who work or carry out (part or whole) business activities in the Nigerian informal economy only. However, the challenges encountered during the data gathering process (see Section 6.4.1) necessitated a change in sampling strategy, as achieving the initial goal became difficult. The data I was now able to gather (641 respondents) is a combination of responses from both participants and non-participants in the informal economy. I used the entire data for analysis in Section 8.1, where I felt it was necessary to gauge the general opinion of Nigerians about the informal economy.

However, all analyses from Section 8.2 downwards are best carried out using responses from only those who participate in the informal economy. For me to be able to carry out these analyses, I created, from the original data collected (i.e., 641 responses), a new database, called the Nigerian informal economy's database. This Nigerian informal economy's database (NIED) has 419 respondents and was constructed using the following five criteria:

1. *Those having two jobs:* the first criterion assumes that all respondents who have a second job operate in the informal economy, as findings from the literature (see Section 4.1.2; Williams and Round, 2009; ADB, 2011) and this study (see Section 8.2.3) tend to suggest that most second jobs are carried out in the informal economy. Specifically, the individuals who have a second job maintain both a formal and an informal, or two separate informal, jobs or businesses.

2. *The classification of main and second job to isolate those operating in the informal economy:* this criterion classifies main and second job or business undertaken by respondents in order to confirm those identified by the first criterion as located in the informal economy. For example, respondents who engage in trading activities, particularly vendors and kiosk-based/petty traders, are automatically categorised as operating in the informal economy (see Hart 1971; Sethuraman, 1981). Justification for including this criterion is that it helps identify informal workers (see ADB, 2011)

3. *The participant's' employer:* this third criterion uses the information on respondents' employer to identify those working for government or public companies, but were at the

same time, owners of businesses/self-employed or working for a private company (see Hussmann, 2004; ADB, 2011). This is important, as it fine-tunes, and adds credibility to, the selection made on the basis of the first two criteria, especially as some respondents did not indicate if they had secondary employment or not.

4. *Proportion of income earned from main job*: The underlying assumption of this criterion is that respondents who do not earn all income from their main employment arguably have more than one source of income. It can be argued that one such source is the informal economy; particularly the second source of income for most individuals often comes from self-established businesses, handicrafts, personal or professional practices, out of office-hour practices (see example ADB, 2011) or consulting. The import of this criterion is that it enables me to identify those who operate a second job/business, but did not indicate so in the questions on second job. Thus, the respondents in the above categories, i.e., who do not earn all income from main employment automatically become part of the informal economy database, but subject to the fifth criterion adjustments.

5. *Remittances adjusted for*: another possible source of income for respondents who do not earn all income from main employment is remittance from relations abroad (see Abdulloev *et al*, 2011). I used the information on 'how often do you receive money (income) from relatives abroad' to modify the results which emerged from the fourth criterion. Specifically, those who were included on the basis of the fourth criterion, but receive regular money from relatives abroad were deleted from the database, as remittances could justify the gap between the proportion of income they earned from their main job and their total income.

Justifying the chosen criteria: Although using these five criteria to define the NIED is novel, decisions on the inclusion of the criteria were based on the existing literature (e.g., see ADB, 2011; Hussmann, 2004; Myanmar, 2009). Specifically, the first three criteria are part of those used for defining the informal economy, on the basis of participants' employment and/or activities. Similarly, the second criterion can also relate to definition of the informal economy by participants' location, whilst the fourth criterion defines the informal economy on the basis of income earned from the sector. The last criterion is not directly related to the definition of the informal economy, but was included to adjust the fourth criterion. Yet, this was based on reported findings that remittances have a relationship with operating in the informal economy (see Abdulloev *et al*, 2011). These five criteria may be criticised for not including all variables which define the informal

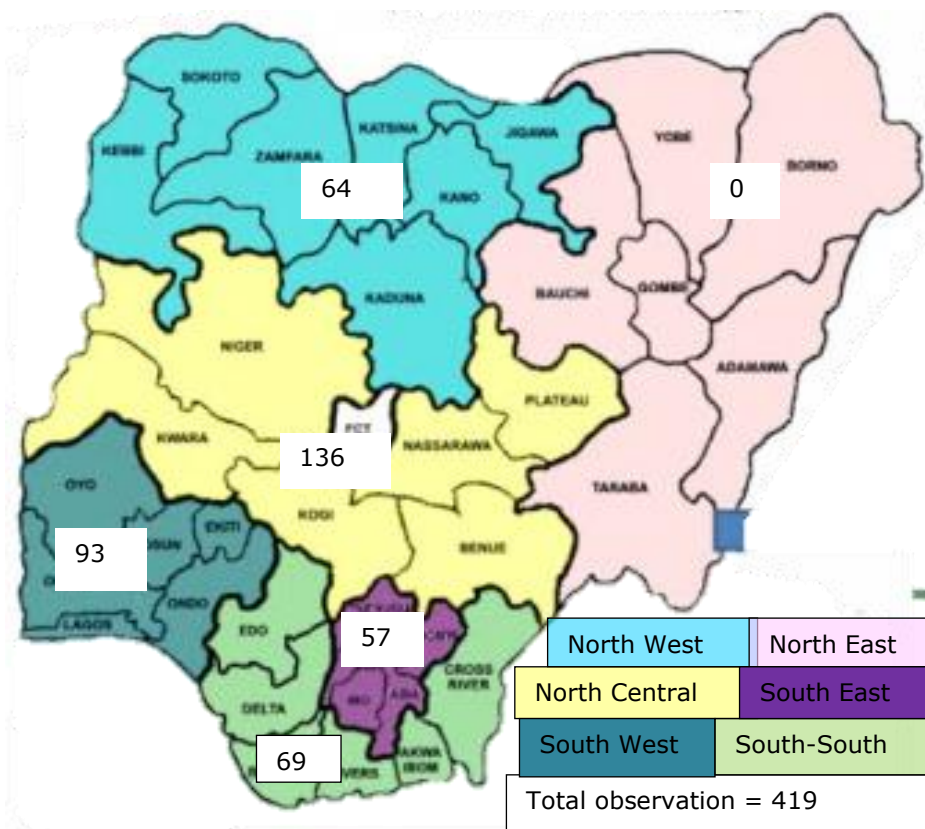
economy. For example, variables which define the conditions or characteristics of employment (e.g., employment on the basis of a contract, part-time, employment related benefits), activities (e.g., registration, tax payment, and operating licenses. However, considering the number of no-response associated with most of these variables, it was not possible to use them as defining criteria for the NIED. Again, I must note that the five criteria were chosen because they best define the Nigerian informal economy, which is dominated by self-employed/own-account (e.g., vendors, petty traders, kiosk-based shops) participants.

6.4.4 Calculating the database error of omission rate

I calculate the error rate of omission to check the consistency and reliability of the database constructed in Section 6.4.3. The process begins with a basic assumption: all responses have an equal chance of being selected. Next, I employ the five criteria in Section 6.4.3 to construct the Nigerian informal economy's database (NIED), without separating or identifying the responses from FIWON. This produced a total of 419 responses as NIED (see Figure 6.2). Then, the 419 responses which emerged as NIED were checked for level of omission/error, by identifying the number of FIWON responses in the former. This is plausibly the only way to check the reliability of the five criteria, hence, the NIED, as all 92 responses from FIWON are expected to be in the NIED. However, 90 of the 92 FIWON responses were captured by the five criteria and included in the NIED. This gives an error margin of 2.2% (i.e., $(90/92)*100$). Given that all responses had equal chances of being selected, I assumed that similar margin of error was operational across all responses. Hence, the NIED has a 2.2% margin of error.

Additionally, it is appropriate to note that this error arises because respondents omitted some questions in the questionnaire that would have enabled me to categorise them correctly. This is a common problem with studies on the informal economy, as the researcher will have to combine multiple sources in order to gather relevant information. Although multiple questions have been asked in this study in an attempt to capture the relevant information, the findings here reveal that there is still a chance of having a 2.2% error. Finally, it can be observed from Figure 6.2 that no participant is recorded for the North-East region (which is due to security challenges in that region at the time of data collection. See, for further clarifications, Section 6.4.1).

Figure 6.2: Map of Nigeria, depicting the sample participants in the Nigerian informal economy by region



6.5 Model Specification

6.5.1 The Currency Approach

Following the work of Fisher (1911), Feige, (1979), Cagan (1958), Tanzi (1980, 1983), in the literature on the demand for currency, and the work of Dell’anno and Halicioglu (2010), the general form of the currency approach is specified by establishing a long run relationship between currency demand, foreign currency, interest rates, tax burden, and income in logarithmic form as follows:

$$K_t = b_0 + b_1fe_t + b_2ir_t + b_3tb_t + b_4y_t + u_t \dots\dots\dots(6.1)$$

Where K_t is real currency issued, fe_t is foreign exchange rates (nominal), ir_t is nominal interest rate on savings, tb_t is tax burden on businesses, and y_t is real income.

Hypothesis: increased tax burden causes informal economic activities to increase in size, which in turn causes demand for currency to increase. Thus, a rise in tax burden leads to an increase in informal economy as more currency is required; $b_1, b_2 < 0$; $b_3, b_4 > 0$.

Next step in the model specification is to introduce Fisher's (1911) quantity theory of money as follows:

$$M * V = P * T \dots\dots\dots(6.2)$$

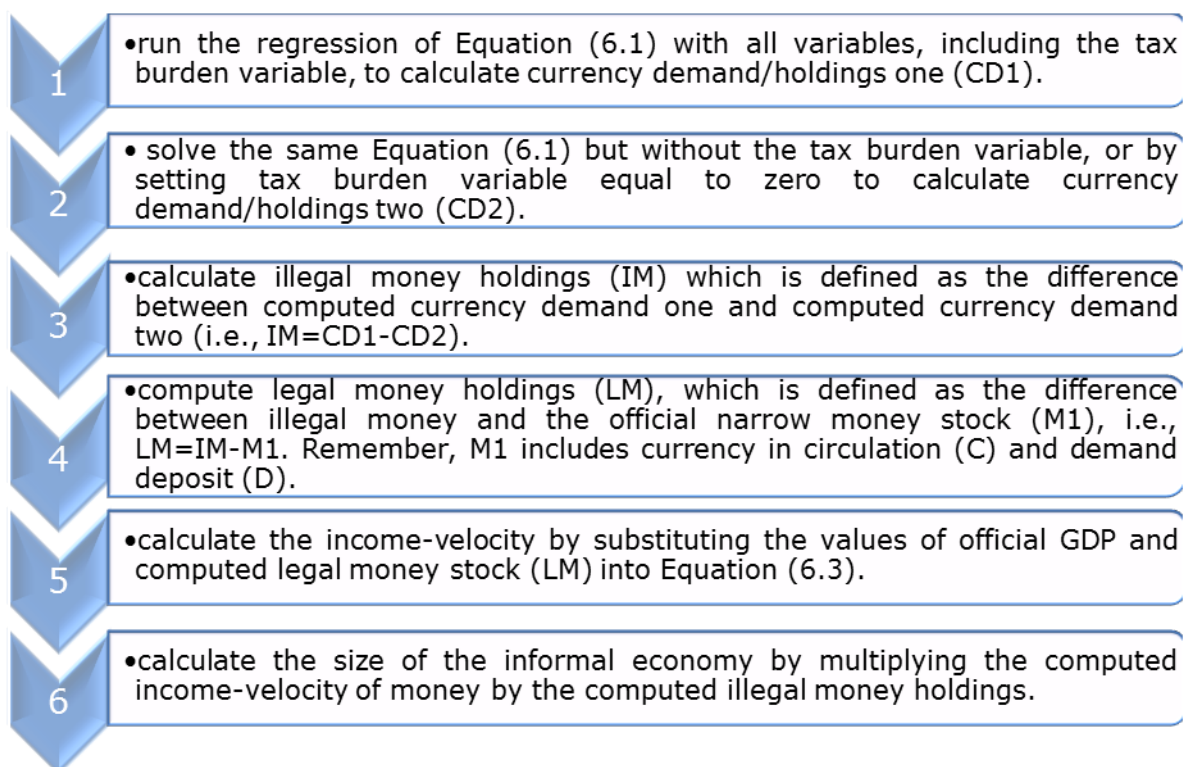
Where, M = money, V = velocity, P = price, and T = transaction of money. Again, Equation (6.2) can be represented as:

$$(C + D) * V = P * T = \text{GDP}\dots\dots\dots(6.3)$$

Where C = currency in circulation, D = demand deposits, and GDP = National income.

The basic assumption of this approach is that money has the same velocity in both the formal and informal economy. This makes the calculation of the size of the informal economy easy using the following steps.

Figure 6.3: Flow Chart: shows the steps for calculating the size of the informal economy.



Critique of the currency approach: It is worth recognising that the currency approach has some drawbacks (for example, see Acharya, 1984). To begin with, the approach has been critiqued for using only one indicator in its calculation, that is, the tax burden. Evidently, this can have unquantifiable effects. For example, one challenge I

encountered using this approach was that data for relevant variables were only available for a limited number of years. Specifically, comprehensive data on tax revenue in Nigeria are only available from 1996 (and 1997 for personal income tax). Considering the central role played by tax burden in the currency approach, the duration for which results can be computed have unavoidably been reduced to 1997 to 2011. Whereas, the MIMIC method has results computed for 1970 to 2012.

Additionally, the currency approach has been criticised for assuming that only currency is used to carry out transactions in the informal economy. Critics argue that some informal activities do not involve the use of physical cash. In fact, some informal transactions are carried out through the banking system. For example, development in financial services products makes it possible for people to carry out transactions without necessarily holding physical cash. Also, the assumption of the same velocity of transaction in both the formal and informal economy has been heavily criticised. In particular, the stability of the income velocity of money for the informal economy cannot be guaranteed.

These criticisms are expected as it has been noted in Section 6.1 that no single method for estimating the size of the informal economy is free from criticism. Yet, the size of the informal economy must be computed, and its characteristics investigated, if the objectives of maximising benefits from the sector, and for its participants, for the general good of the economy are to be achieved. This may involve a combination of methods (i.e., *methodological triangulation*), as proposed in this research, the Currency and MIMIC methods are utilised to measure the size of the Nigerian informal economy. This decision was based on what is best for this study (see Sections 6.1 and 6.3 for details. Also see Section 6.3 for the relative benefits of the chosen Currency and MIMIC techniques). I will now turn to discuss the MIMIC approach.

6.5.2 Multiple-Cause, Multiple-Indicators (MIMIC) model

Every estimation method discussed in Sections 6.2.2 and 6.5.1 only describes one indicator or manifestation of the informal economy. For example such indicators as tax burden, money or currency, cash demand, and electricity consumption are respectively the only indicators for the tax-auditing, currency, transactions, and physical input approaches. However, in reality, there exist several manifestations of the informal economy which simultaneously interact. One of the methods which considers these multiple causes and effects of the informal economy is called the multiple cause multiple indicator (MIMIC) model. Generally, the MIMIC method defines and depicts the

association between the observed causes and effects of the informal economy, which is the unobserved variable, to compute the unobservable factors of the informal economy (see Loayza, 1997; Vuletin, 2008; Schneider *et al.*, 2010). In particular, the method describes a model with an imposed parametric structure and compares it with the covariance matrix of the observed variables. Additionally, the observed variables relate to each other through their covariances, which are derived by the inclusion of unobserved variables.

In the application of the MIMIC model to the informal economy, the informal economy becomes the latent (unobserved) variable. In a similar process to the one described in the last paragraph, the unobserved informal economy variables are explained vis-à-vis observed explanatory (causal) variables and unobserved variables using the covariance matrix of the former. The MIMIC model is usually a combination of two models: the measurement or confirmatory factor analyses (CFA) model and the structural model (SM), and are specified concurrently. The process begins with the CFA model, which defines the links between the unobserved variable and the observed-indicator variables. A CFA model can also be specified to define the links between the latent variable and the observed-causal variables. Specifically, CFA “provides the link between scores on a measuring instrument (i.e., the observed indicator variables) and the underlying constructs they are designed to measure (i.e., the unobserved latent variables)” (Byrne, 2010, pg. 12-13). Following the specification of the CFA model is the SM, which defines the relationship between the unobserved variables. According to Byrne (2010, pg. 13), the SM “specifies the manner by which particular latent variables directly or indirectly influence (i.e., cause) changes in the values of certain other latent variables in the [SEM] model”. It is worth noting that MIMIC models are “a particular type of a structural equations model (SEM)” (Schneider *et al.*, 2010, pg. 10). Effectively, the SM represents the bridge between the latent variable and its causal factors, and the latent variable and its indicator-factors.

Econometric models are constructed for different purposes. For example, they can be built to explain another model/theory, alternatively, to confirm an existing theory/model. MIMIC models fall into the latter group, as they mainly confirm structural theories. Specifically, MIMIC models are designed and used as confirmatory techniques, as they primarily test, with actual data, the representativeness and consistency of the structural model. In doing this, they fulfil two objectives; estimate parameters, and gauge the fit of the model. This is well captured by Schneider *et al.* (2010, pg. 10) who note that “in a confirmatory factor analysis, a model is constructed in advance ... economic theory is

tested by examining the consistency of actual data with the hypothesised relationships between the observed (measured) variables and unobserved variable. Such a confirmatory factor analysis has two goals: (i) estimating the parameters (coefficients, variances, etc.) and (ii) assessing the fit of the model". In a similar way, the application of the MIMIC model to the study of the informal economy is intended to fulfil the following two objectives: to investigate the relationships between observed and latent variables, that is, observed causes, observed indicators, and the unobserved informal economy. Secondly, to test the fit of the data, primary and secondary, on the specified-model. Thus following Schneider *et al.* (2010), the SM part of the MIMIC model for this thesis is specified as follows:

$$M = Df + E \dots\dots\dots(6.4)$$

Where $f = (f_1, \dots, f_k) = (1 \times k)$ vector, and potentially, each $f_i, i=1, \dots, k$ can cause the latent variable M . The vector of coefficients is represented by $D = (d_1, d_2, \dots, d_k)$ is a $(1 \times k)$ and it describes the relationship which exists between the latent (unobserved) variable and its causes. This implies that a combination of exogenous causes determine the latent variable M . It is assumed that the explanatory factors specified in the model may not explain all the variations in the latent variable, M . Hence, an error term E is added to the equation in order to account for the unexplained part. H represents the variance of E , and L defines the $(k \times k)$ covariance matrix of the factors which determine f .

As explained in the second paragraph of sub-Section 6.5.2, the connection between the unexplained factors and their indicators is defined by the measurement model, which is specified as:

$$D = gM + U \dots\dots\dots(6.5)$$

Where $D = (d_1, d_2, \dots, d_t) = (1 \times t)$ vector of the multi-indicator variables, g represents the vector of the regression coefficients, U represents the $(1 \times t)$ vector of the white noise disturbances, and Q_U is the $(t \times t)$ covariance matrix. An example of the structure of a MIMIC model is shown in figure 6.4 below:

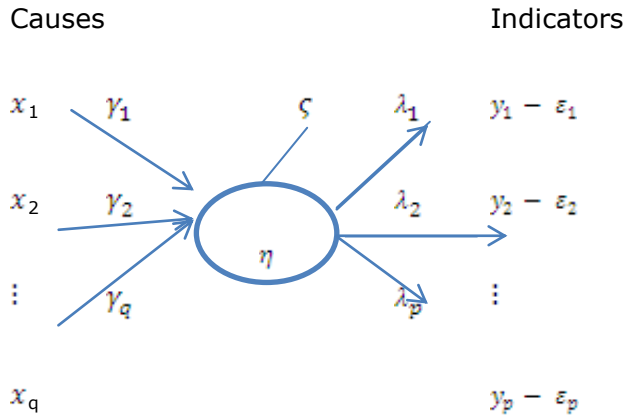


Figure 6.4: General structure of a MIMIC model.

Combining Equations (6.4) and (6.5) will generate Equation (6.6), which is a “reduced form [of] multivariate regression model” (Schneider *et al.*, 2010, pg. 12). Equation (6.6) is defined by $d_n, n=1, \dots, t$ (endogenous variables), which are the indicators of the M’s unexplained variables, and $f_i, i=1, \dots, k$ (exogenous variables) which are the causes of the M’s latent variable. This new model is specified as:

$$d = Pf + V \dots\dots\dots(6.6)$$

Where $P=gD$ represents a unit-ranked matrix, and $V=gE+U$. V , the error term, is a $(t \times 1)$ vector which combines the white noise error terms of the structural model (E) and measurement model (U). In particular, $V \sim (0, N)$. N ’s covariance matrix is unit-ranked, and is defined as: $cov(V) = Z(gE+U)(gE+U)' = gg'H + L_v$. It follows that for the model to be identified and estimated, one of the components of vector g must be normalised to an exterior or fixed value (see Bollen, 1989; Schneider *et al.*, 2010). In addition, the covariance matrix of the MIMIC model $\Sigma(L)$ defines the co-varying relationships between the observed variables, and is derivable from Equations (6.4) and (6.5). Finally, the latent and observed variables’ structure of the MIMIC model emerges when the resulting matrix from Equation (6.4) and (6.5) is decomposed. Thus:

$$\Sigma(L) = \begin{pmatrix} g(DqY + h) + L_U & gDq \\ qYg & q \end{pmatrix} \dots\dots\dots(6.7)$$

Where $\Sigma(L)$, the covariance matrix, depends on the parameters of g and Y , as well as the covariances contained in q , L_U , and H . Generally, the estimation of the hypothesised

model would yield exact results as that of the population's covariance matrix (Σ), that is, $\Sigma = \Sigma(L)$, if the former model's parameters are known, and is correct. However, this is not the case in practice, as the parameters, variances and covariances of the population are never known; Only those of the samples are known. Hence, what is available for use, for the estimation of the model, are the observed variables' sample covariance matrix, which are the d (vector of indicators) and f (vector of causes), and the estimates of the unknown sample parameters. Overall one aims, as much as possible, to produce the closest possible parameter and covariance estimates to the sample covariance matrix, that is, $\Sigma^* = \Sigma(L^*)$, of the observed causes and indicators. "The function that measures how close a given [population covariance matrix] Σ^* is to the sample covariance matrix S is called fitting function $F(S; \Sigma^*)$ " (Schneider *et al.*, 2010, pg. 13). For most SEM users, the Maximum Likelihood (ML) estimation technique is the most popular fitting function, and is given as:

$$F_{ML} = \log|\Sigma(L)| + ni[S\Sigma^{-1}(L)] - \log|S| - (t + k) \dots\dots\dots(6.8)$$

Where $\log| |$ represents the log of each matrix's determinants, and the number of observable variables is $(t+k)$. Generally, the estimate of the fitting function is minimised through an iterative numerical procedure, as there does not exist any form of structural parameters' solution, open or closed, which minimises the fitting function (F_{ML}) (see Bollen, 1989; Schneider *et al.*, 2010).

6.5.2.1. Converting MIMIC Results to Real Data.

The application of the dynamics of Equations (6.4) to (6.8) leads to the computation of the coefficients of the explanatory variables, loosely termed MIMIC results. (It should be noted that the explanatory variables are the observed variables, and the explained variable is the latent variable). In turn, the obtained MIMIC results are used to compute the MIMIC index by multiplying the time series data of each statistically significant variable with its computed MIMIC coefficient. The result is then summed up to obtain the MIMIC index for each year. The MIMIC result is sufficient on its own if the focus of study is to investigate the pattern of the informal economy in any given country. Indeed, the estimation of primary data with the MIMIC technique will end at this point, and it is an important task for the current research, which would be completed in Chapter 8.

Additionally, the goal of this research involves the estimation of secondary data with the MIMIC technique in Chapter 7. In particular, the overarching aim at this stage is to compute the absolute value of the size of the Nigerian informal economy. To be able to

do this, the MIMIC index would have to be converted to real world figures, which are determined as percentages of official GDP. This additional requirement will necessitate another procedure or benchmarking. Regrettably, the debates about the benchmarking procedure to be used have continued in the literature. However, different authors have made attempts to follow similar methods in determining the all-important benchmark (examples include, Dell'Anno and Schneider, 2006; Dell'Anno, 2007; Dell'Anno and Solomon, 2008; Schneider *et al.*, 2010; Salisu, 2001; Ogbuabor and Malaolu, 2013). The methods involve three steps.

Step I computes the MIMIC index from the MIMIC result obtained from Equation (6.4). The outcome of this stage produces an index for each year. Step II then converts each year's index into an absolute value of the informal economy. This conversion process requires choosing a base-year index and a base-year's exogenous value of the informal economy. Finally, step III involves the use of the following benchmarking equation to compute the absolute size of the informal economy:

$$M_n = \frac{m_n}{BYI} * (BYEV)$$

Where M_n is the MIMIC index's value at time n , BYI is the base year's index value, and $BYEV$ is the base year's exogenous value of the informal economy.

Conclusion

I have examined in this chapter the underpinning methodological paradigm of this thesis. Taking a mid-way stance between positivism, realism and interpretivism, the philosophical position of this thesis is methodological triangulation. This is based on the fact that I employed primary and secondary information, and other traces of evidence which enabled me to carry out this study. Arguably, some of these traces of evidence are subjective. Also discussed were the various methods employed in this thesis for data collection and analysis. While structured questionnaires were administered to collect quantitative data, there were some open-ended questions which gave room for the utilisation of techniques which are akin to qualitative analysis. Additionally, I used five defined criteria to create, from the original total sample, a database which represents those who actually engage in the informal economy in Nigeria. The database indicates that the participation rate in the Nigerian informal economy is 65.4%. To analyse data, I

discussed the direct and indirect methods. While the direct method encompasses the nature and analysis of the primary data collected, the indirect methods involve the use of the currency and MIMIC-model techniques, which were specified and discussed in this chapter.

The focus in the next chapter is to utilise the currency and MIMIC models that have been specified in the current chapter to analyse the secondary data relevant for this study. Finally, I shall also employ the MIMIC model specified in this chapter to analyse the factors which determine the Nigerian informal economy, in Chapter 8.

Chapter Seven Secondary Data: Results and Analyses (National Analyses).

7.0 Background

The aim of this chapter is to utilise secondary data and the models specified in Chapter 6 to compute the size of, and analyse the results for, the Nigerian Informal Economy. It begins with the currency approach, which is followed by the MIMIC approach, then, discussion of the results from both approaches and a summary of the chapter.

7.1 Currency Approach

I modify, to suit the Nigerian context, the work of Fisher (1911) on demand for currency and its application to the study of the informal economy (e.g., Tanzi, 1983; Halicioglu and Dell’Anno, 2010), as indicated in Section 6.3, and specified in Section 6.5.1. The size of the Nigerian informal economy is thus estimated by postulating a long run relationship (which is confirmed in Section 7.1.2) between currency demand, current GDP, consumer price index, exchange rate, oil prices, average interest rates for deposit, unemployment, and tax burden specified in logarithmic form as follows:

$$LC = b_0 + b_1LCG + b_2LCPI + b_3LER + b_4LOP + b_5LPSR + b_6LU + b_7LTB + u_t \dots \dots \dots (7.1)$$

Where: L is natural log, C is ratio of currency in circulation to demand deposit, b_0 is intercept, CG is current GDP, CPI is consumer price index, ER is the bilateral exchange rate (Nigeria’s naira to US dollar), OP is oil price, PSR is average deposit rate, U is unemployment rate, TB is tax burden defined as ratio of personal income tax to direct total tax revenue, and u_t is the error term. To reiterate, the key assumptions underlying this method are that, participation in the informal economy is mainly influenced by high taxes, and currency facilitates transactions in the sector. However, currency is also used “for storing wealth” (Tanzi, 1983 pg. 289). To correctly employ the currency method, it is important to compute the currency in circulation, which is influenced by high taxes, hence the informal economy, or store of wealth. Doing so requires running the regression of Equation 7.1 and solving it twice (see Halicioglu and Dell’Anno, 2010): First with all variables, then, by setting the tax variable to zero.

7.1.1 Variables' Justification & Data Description

All variables have been chosen for three reasons: the need to capture the relevant macroeconomic indicators, which influence currency holding in Nigeria, data availability, and an attempt to be in line with the general practice in the prevailing literature. For example, Tanzi (1983, pg. 290) estimated the size of the US informal economy using the currency approach and the following variables: currency holding (as a proportion of broad money), wages and salary (as a proportion of national income), tax variables (defined as TW and T: "TW is a weighted average tax rate on interest income...; T is the ratio of total income tax payments after credit to adjusted gross income"), real per capita gross national product, and interest rate on time deposits. Also within the literature, the currency approach has attracted the use of diverse variables, including currency M_0/M_1 , (the ratio of currency in circulation to demand deposits), interest rates on demand deposit, inflation rate, per capita GDP, net direct taxes as proportion of GDP, size of government (government expenditure as proportion of GDP), share of direct taxes in total tax revenue, fiscal freedom (direct and indirect taxes as a proportion of GDP; it measures the burden of taxes), business freedom (a measure of government's business regulatory efficiency), unemployment rate, growth rate of GDP per capita, and labour force participation rate (see for example, De La Roca *et al.*, 2006; Dell'Anno and Halicioglu, 2010).

Annual data, for the seven variables in Equation 7.1, spanning 16 years, i.e. 1996 to 2011, is used in this section of the study. My use of annual data is largely due to the data availability for all variables for the period for which the study is carried out. Also, annual data best suit this study, as it smooths out the volatility associated with quarterly or monthly data, although the number of observations is lower than with the latter. Having less-volatile data is important as I seek stationarity (see Section 7.1.2). This would enhance the reliability of the results, as the chances of having spurious regressions/results are reduced. It is worth noting that the variables to be discussed shortly do not measure the informal economy directly. Rather, they measure the currency in circulation, which, in turn, is used to measure the size of the informal economy. Specifically, it is an indirect measure; and the hypothesis is that individuals' preferences for currency holding increase the quantity of currency in circulation, hence, the size of the informal economy – given that the latter cannot be measured directly.

Gross Domestic Product (GDP) (denoted by CG, and LCG in log form): GDP is used in this study to capture how the currency in circulation impacts and/or is impacted

by the real economy's output. Two economic realities are possible for economies that have a positive relationship between the currency in circulation and GDP. On the one hand, the informal economy would be small in size or nonexistent, especially, if growth in GDP enhances productivity and job creation, and the increase in currency is used to finance growth in GDP. On the other hand, a positive growth in GDP and currency can lead to a large informal economy if the growth in GDP does not translate to job creation, as the citizens would take up employment activities in the informal economy.

However, the expectation here is to speculate on how increases in currency holdings, attributable to high levels of taxes (and increasing participation in the informal economy), relate to GDP. Following Tanzi's (1983) explanation, a negative relationship is hypothesised between currency and GDP, since increases in GDP arguably lead to the conversion of cash (notes or coins) to cheques. Particularly, growth in GDP does not translate to an increase in the currency in circulation, as the former is usually converted to bank cheques instead of notes or coins (Tanzi, 1983). Thus, while tax-evading activities cause currency to grow, increases in GDP causes currency to fall, although Carsky and Valentovicova (2007) report growth in Slovakia's currency in circulation, largely influenced by GDP growth.

The data on GDP are obtained from World Bank (WB) website and central bank of Nigeria (CBN) statistical publications.

Tax Burden (denoted by TB, and LTB in log form): Tax burden is arguably the main factor responsible for a large informal economy. Several proxies have been used for tax burden including, ratio of direct tax to total tax revenue, ratio of company tax to total tax revenue, ratio of direct tax revenue to GDP, and ratio of direct personal income tax to direct total tax revenue. This study uses direct personal income tax revenue as a proportion of direct total tax revenue to represent tax burden. Ideally, the ratio of personal income tax to total tax revenue should reveal the burden of taxation on income earners. A high ratio of the latter indicates a high tax burden and encourages individuals to engage in the informal economy. Arguably, it is the individual who thinks he pays too much income tax that will seek tax avoidance or even, illegally evade tax. Additionally, tax burden has been defined this way in this study as it, unlike other proxies for tax burden, generates a good and stable regression result. Also, it is akin to what was done by Schneider *et al.* (2010), who used the proportion of direct taxes to total tax revenue as proxy for tax burden. A positive relationship is expected, as a growing tax burden

leads to tax avoidance or/and evasion, increase in currency holdings and the rate at which individuals engage in activities in the informal economy.

Data on taxes were obtained from the Federal Inland Revenue Service (FIRS) of Nigeria.

Money Supply (denoted by CIC, DD & M1) and Savings Rate (denoted by ASR, and LASR in log form): The main assumptions in the currency approach are that transactions in the informal economy are solely carried out in cash, and high taxes are responsible for the origin and growth of the informal economy (for example see Tanzi, 1983; Tunyan, 2005; Dell'Anno and Halicioglu, 2010). Three important money proxies used in this study are: currency in circulation (CIC), demand deposits (DD), and broad money (M1). Specifically, while M1 is used in computing the velocity of money transactions, the ratio of CIC to DD represents currency (C), which is the dependent variable. For their parts, CIC is defined as currency in the hands of members of the public, DD consists of money in the bank and all liquid assets, and M1 combines CIC and DD. The general hypothesis is that currency relates positively to the size of the informal economy.

ASR defines the rate of interest banks pay on customers' deposits (DD), and following Tanzi (1980, pg. 437; 1983), "is a measure of the opportunity cost of holding currency". ASR is an independent variable, and is proxied by the weighted average of savings and prime rates. Generally, the rate of savings can influence currency holdings. For example, if savings rates are high, individuals will have a preference for savings, *ceteris paribus*. This would reduce the quantity of money in circulation, and vice versa. The implication of a high savings rate is that it can lead to a contraction in C (i.e., the ratio of CIC to DD, since savings is part of DD; see Equation 7.1), hence, the size of the informal economy. Thus, a negative relationship between currency and the savings rate is hypothesised.

Data for the savings rate are obtained from CBN statistical publication, the data for CIC, DD and M1 are obtained from WB website and CBN statistical bulletin.

The Bilateral Exchange Rate (denoted by EXR, and LEXR in log form): Bilateral exchange rate measures the value of a country's currency in terms of another. For this study, the bilateral exchange rate reflects the value of the local currency (naira) in terms of the United States (US) dollar. In line with previous studies (e.g., Halicioglu and Dell'Anno, 2010) the exchange rate is included as a variable in this study to capture another factor that influences C. Additionally, the openness of the Nigerian economy, and more importantly, the country's heavy dependence on revenue from the export of

crude oil, justify the inclusion of the exchange rate, specifically this bilateral exchange rate with the US dollar, as a variable in this study. Also, the exchange rate captures the effects of the external sector on a country. This is instructive for Nigeria, where the revenue from oil exports are initially dominated in US dollar and later converted to local currency. Essentially, in Nigeria, the exchange rate determines the amount (quantity) of naira that would be made available to various levels of government, which in turn determines the quantity of currency that could go into circulation. A negative relationship is hypothesised, as a worsening naira exchange rate in relation to the US dollar increases the amount of domestic currency in circulation.

The data on this variable are obtained from the WB and CBN websites.

Consumer price Index (denoted by CPI, and LCPI in log form): The consumer price index (CPI) is a measure of the prices of a representative basket of goods and services over time. According to Mankiw (2007, pg. 16, 33) CPI “measures the level of prices. ... [It] is a closely watched measure of inflation”. In particular, the percentage difference between two CPIs at a particular date of two separate years provides the percentage increase or decrease in inflation. The inflation rate or CPI is a key macroeconomic indicator, used in previous studies (e.g., Torero *et al*/IADB, 2006) as another factor that influences C. A low level of inflation/CPI is generally agreed to encourage economic growth. However, a high rate of inflation (CPI) can wipe out real wealth, and increase currency holdings. Arguably, this will increase the value of C (i.e. the ratio of CIC to DD; see Equation 7.1). A positive relationship is hypothesised between CPI and C.

Data on these variables are obtained from the WB and CBN database.

Oil Prices (denoted by OP, and LOP in log form): The seven variables chosen for the current study have been carefully selected, as all, except oil prices, are similar to the ones already used in the literature (see Tanzi, 1983; Halicioglu and Dell’Anno, 2010; Torero *et al.*, 2006). However, to the best of my knowledge, oil prices have not been used as a variable to study the informal economy in the literature. Oil prices are used in this study to capture the effect of oil revenue, which provides the bulk of Nigeria’s total government revenue, on the currency in circulation. In 2011 for example, oil contributed about 25.1% to GDP and 79.9% of total government earnings in Nigeria (see CBN, 2012). Evidently, the exclusion of the contributions of revenue from oil in any study on

Nigeria would lead to the loss of a significant amount of information on the sources of the currency in circulation.

The higher the price of, and revenue derivable from, oil, the likelier it is that individuals/firms will shift participation to the oil sector, *ceteris paribus*. This increases currency holdings, especially if some of these participants operate informally in the oil sector, or deliberately avoid taxes as they participate in the informal economy. This is highly likely, as there are recent reports of high levels of corruption in the Nigerian oil sector (see Kew and Phillips, 2007; Katsouris and Sayne, 2013; Sala-i-Martin and Subramanian, 2013; Murdock, 2014). Thus, a positive relationship between oil prices (hence, revenue from oil's production and sale) and currency in circulation is hypothesised.

The data on oil prices were sourced from CBN website and various publications.

Unemployment level (denoted by U, and LU in log form): Unemployment ranks high in the survivalist theory of the informal economy. It has been included as a variable in this study to represent the labour sector. Generally, individuals who do not have jobs might not have money to spend or cash to hold. In this case, a negative relationship would be expected between the unemployment level and currency in circulation. Conversely, when people are unemployed, they still manage to survive by engaging either on the demand, supply or both sides of the informal economy, and such individuals will usually want to avoid paying taxes on the little wages/income they are able to earn from the sector. Accordingly, they hold money in order to be able to carry out their informal activities. In this case, a positive relationship would be expected.

Unemployment data are obtained from WB website, and CBN statistical bulletin.

7.1.2 Presentation of the Results:

A stationary series is defined "as one with a constant mean, constant variance and constant autocovariances for each given lag" (Brooks, 2008, pg. 318). The rule is that a long run relationship can only exist among variables if they are all non-stationary at level (as against 1st or 2nd difference) test for unit root. At the same time, the residual of their regressed relationship must, of necessity, be stationary without differencing, i.e., at the level's unit root test. Essentially, some or all of the variables must be of order I(1) or I(2) if a long run relationship exists in the variables or series. By order I(1) or I(2) it is meant that the series or variables only attain stationarity after their first or second order

differences are taken, respectively. Although most economic series are of level I(1), there are others which attain stationarity after the second difference. As noted by Brooks (2008), there are three main reasons for conducting a unit root test:

1. The behaviour and properties of a series are seriously affected, depending on whether it is stationary or has a unit root. For example, shocks are expected to gradually die away when series are stationary. However, this is not so with non-stationary series, as shocks remain till infinity.
2. "The use of non-stationary data can lead to spurious regressions" (Brooks, 2008, pg. 319)
3. "If the variables employed in a regression model are not stationary, then it can be proved that the standard assumptions for asymptotic analysis will not be valid. In other words, the usual t-ratios will not follow a t-distribution, and the F-statistics will not follow an F-distribution" (ibid pg. 320).

To carry out this test, I employ the Augmented Dicky-Fuller (ADF) (1979) and Phillips-Perron (PP) (1988) test for stationarity; given respectively as:

$$\Delta Y_t = \beta_{1t} + \beta_{2t} + \partial Y_{t-1} + \alpha_i \sum_{i=1}^k \Delta Y_{t-1} + \varepsilon_t \dots \dots \dots (7.2)$$

Where, Δ =difference operator, α , ∂ and β are coefficients to be estimated, Y =variable whose time series properties are examined, ε =white noise error term.

$$\Delta Y_t = \alpha + \beta Y_{t-1} + \varepsilon_t \dots \dots \dots (7.3)$$

Where, α =constant, β =slope, Y_{t-1} =first lag of the variable Y .

All variables are in log form; this does not affect the relationship between the dependent and independent variables, as any set of series which have a long run relationship (cointegrated) in levels will also be cointegrated in log (first difference) forms (see Hendry and Juselius, 2000). The results of the unit root test are presented in Table 7.1.

Table 7.1 depicts the results of the unit root test

	ADF T-STAT	PP T-STAT	ADF at 1 st difference	PP at 1 st difference
LASR	-3.6**	-3.6**	-7.69***	-8.1***
LC			-3.48**	-3.5**
LCG (CGDP)	-3.27**			-3.56**
LCPI			-2.74*	

LEXR		-3.26**	-3.78**	-3.78**
LINF	-3.9**	-3.85**	-4.92***	-10.5***
LOP			-5.97***	-14.02***
LTB			-3.18**	-3.19**
LU			-2.79*	-2.8*
Residual(-1)	-6.02***			

Note: ADF=Augmented Dickey-Fuller; PP=Phillips-Perron; *, **, *** denote significance at the 10%, 5% & 1% levels respectively; sample range: annual data 1996-2011 inclusive; all variables, in nominal terms, are as defined in Equation (7.1).

As can be seen from Table 7.1, all variables except LASR, LCG, and LINF, are of order I(1). Although LASR, LCG and LINF are of order I(0) at 5%, that is, they are stationary at the 5% levels form, it does not change the I(1) order of the series. In fact, it has been noted that if two or more variables of “differing orders of integration are combined, the combination will have an order of integration equal to the largest” (Brooks, 2008, pg. 335). Going by this result, the necessary condition for the existence of a long run relationship is established, as the null hypothesis of a unit root is rejected. Similarly, the sufficient condition is in the non-stationarity or otherwise of the regression residual of the series. By rule, the residual must be a unit root for a long run relationship to exist. As can be seen from Table 7.1, the residual is significant at the 1% level; hence, the residual of the variables in levels and non-log form is of order I(0), and the null of a unit root cannot be rejected. This confirms the fact that a long run relationship exists among the variables used for this study.

Arguably, the best model to estimate a series with an established long run relationship (that is, a series which is stationary) is the cointegration technique with an error correction model (see Brooks, 2008). However, limited by data availability, I was not able to employ cointegration for this study, as it is not possible to carry out cointegration analysis with data having less than 20 observations on EViews6. The way forward was the application of Equation 7.1, which also is the general approach taken in the informal economy literature. Hence, Equation (7.1), along with the data for all variables, is run on EViews6 and the following regression results are obtained:

$$LC = -1.01 - 0.754LCG + 1.21LCPI + 0.91LASR - 0.36LEXR + 0.16LOP - 0.32LTB - 0.092LU \dots\dots\dots (7.4)$$

All variables except LOP and LU are significant at least at the 5% level. Specifically, LOP and LU are significant at 8.4% and 6.8% respectively, and the intercept is not significant. This suggests a no-intercept-model. The R-squared and adjusted R-squared are respectively 98.9% and 97.7%, suggesting that causes of variation of money supply in

Nigeria have been well captured by the model. Specifically, the explanatory variables of current GDP (LCG), CPI (LCPI), exchange rate (LEXR), oil prices (LOP), deposit interest rate (LASR) and level of total unemployment (LU) adequately account for (or explain) movements in currency (LC i.e., the ratio of currency in circulation to demand deposit) in Nigeria. In particular, a 1% rise in LCPI, LASR, and LOP will induce, respectively, 1.21%, 0.9%, and 0.16% increases in LC. Conversely, a 1% increase in LCG, LEXR, LTB and LU will bring about, respectively, 0.754%, 0.36%, 0.32% and 0.092% declines in LC. The results in Equation (7.4) are used to compute the size of the informal economy in Nigeria (see Table 7.2).

Conversely, it could be argued that the high R-squared in the regression results plausibly suggests the existence of multicollinearity. Gujarati (2011) lists five possible ways of detecting multicollinearity: high R-squared but few significant t-ratios, high pairwise correlations among explanatory variables, partial correlation coefficients, auxiliary regressions, and the variance inflation (VIF) and tolerance (TOL) factors. I employed the first criterion but could not confirm multicollinearity, as all the included regressors are statistically significant at less than the 10% level. Further tests could be carried out, and if multicollinearity is detected, the typical options available to remedy the situation include dropping a redundant variable, increasing the sample size, employing principle component analysis, factor analysis, or doing nothing in cases where attempting to remedy the situation may prove problematic and inject more problems. Given the lack of flexibility I had with the nature of data, in this study, I found the last option preferable as the estimated coefficients are still unbiased, even though, if multicollinearity is present, the variances and standard errors will increase and tests of significance could be incorrect. I did not carry out further tests of the regression results because combining relevant variables in a way different from Equation 7.1 generated an inconclusive outcome. This is possibly due to the fact that the sample size is small, and cannot be increased due to data limitations.

Thus, while there was no confirmation of the existence, or otherwise, of multicollinearity in the regression results, the decision was reached to use the results as they were, considering that an output from the currency approach is necessary for this study. As already noted, I had no control over the data, and there was little I could do to change the variables/model. Specifically, results from Equation 7.1 were the only one with a possible solution. An attempt to remove at least one variable led to an inconclusive outcome. For its part, data used are secondary data which have been obtained from various official sources. Increasing the number of years for which the results are

computed could improve the reliability of the results, but this was not possible due to non-availability of data.

Whilst doing nothing may appear suboptimal as a way of proceeding, this does have the support of Gujarati (2011 pg. 74) who notes, "since the OLS estimators are BLUE as long as collinearity is not perfect, it is often suggested that the best remedy is to do nothing but simply present the results of the fitted model. This is so because very often collinearity is essentially a data deficiency problem, and in many situations we may not have choice over the data we have available for research. But sometimes it is useful to rethink the model we have chosen for analysis to make sure that all the variables included in the model may not be essential". Finally, it makes sense to think that regression results from Equation 7.1 is the most stable, as the variables included are derived theoretically, reflect also the empirical literature, and appear to capture all factors which influence money in circulation (and generally, money supply) in Nigeria.

As expected, LCG, LEXR, LCPI, LOP, and LU have the correct *a priori* signs. Specifically, GDP is negative and correctly signed, at least from the stance of the explanation given in the literature (see the discussions of GDP in Section 7.1.1; Tanzi, 1983). Similarly, the exchange rate (LEXR) is negative and correctly signed. This implies that a worsening exchange rate for the Nigerian naira *vis-a-vis* the US dollar brings about an increase in the domestic currency in circulation. Also, oil price (LOP) is positive and correctly signed. As hypothesised, this means the rising global oil price increase the quantity of currency in circulation in Nigeria. Finally, total unemployment (LU) is negative and correctly signed.

Conversely, each of LASR and LTB has a sign which contrasts with the one expected. In particular, the deposit rate of interest (LASR) was expected to be negative but turned out to be positive. The possible explanation for this is that Nigerians plausibly respond to the savings rate relative to the inflation and lending rates. Specifically, the savings rate in Nigeria is often low and is at all times well below the inflation rate, whilst the lending rate is unsustainably high. For example the inflation and savings rates are respectively 8.53, 17.9, 10.8 and 4.8, 3.83, 1.4 for 1997, 2005, 2011 (see CBN, 2012). Similarly, the organised private sector of Nigeria puts the average savings and lending rates, respectively, at 3% and 22-35% in Nigeria (see Vanguard, 7 April, 2014). Hence, the motivation for individuals to keep money in the bank is minimal or non-existent, as it makes more economic sense to finance operations with savings they could keep in the bank at 3%, than borrowing at a rate between 22-35%. Additionally, by financing their

business with personal savings, individuals are able to avoid paying capital gains/profit tax, which can easily be detected if transactions were carried out via financial institutions.

Similarly, the tax variable (LTB) is negatively signed. This contrasts with the *a priori* hypothesis. Additionally, it contradicts the general hypothesis which argues that a rise in tax burden leads to an increase in currency holding, which in turn induces an expansion in the size of the informal economy (see Dell'anno and Halicioglu, 2010; Tanzi, 1983). A possible explanation for this is that beginning in the 1990s, when global oil prices began to rise, Nigeria became overly dependent on revenue from oil (see Appendix) and started to reduce other tax rates. For example, FIRS (2012) shows that the tax rate for the lowest income brackets was reduced from 10% in 1987 to 5% in 1995, and it remains so until 2011. The reduction was much greater for the highest income earning groups, which had their tax rates cut from a high of 55% in 1987 to 25% in 1995, and it remains so until 2011. The reduction in tax rates also extended to company income tax rate, which had fallen from 45% in 1985 to 30% in 1996, and remained so to date.

There is evidence to suggest that there has been a huge increase in government revenue. However, the rise has largely been traced to revenue from oil, and not personal income tax, which has declined relatively over time. At the same time, the money supply (and particularly, currency in circulation) has grown, as has the size of the informal economy in Nigeria. In particular, it appears exogenous growth in the money supply has found its way into, and been used to expand, the informal economy. The latter could have been exacerbated by the inability of the government to enhance the production of manufactured goods, and the creation of sufficient formal-sector jobs from the huge revenue it has earned. In contrast, I will argue that the reduced income tax rates, which create a negative relationship between tax burden and C, have increased the disposable income of individuals and households, who in turn have engaged in business activities in the informal economy.

Additionally, it should be recalled that in this study tax burden is defined as the ratio of direct personal income tax revenue to direct total tax revenue. Ideally, this ratio will rise when the number of people officially employed, hence tax income from formal employment, grows. This will, in turn, generate a positive relationship between the tax burden ratio and C, as currency in circulation (and government's total revenue in general) rises. However, this has not been the case in Nigeria because the rate of unemployment has been rising since the implementation of the SAP in the 1980s (hence, there has been a decline in personal income, as well as the ratio of personal income to total revenue),

whilst government's total revenue has experienced a significant expansion (see Appendix). This plausibly explains the negative sign of the tax burden variable in my results.

Finally, I will argue that the relationship depicted by the secondary data, plausibly, does not represent reality and the evidence from the Nigerian business environment. Specifically, while available official data show reductions in tax rates and increases in government revenue (and total money supply/currency in circulation), which creates the negative relationship between tax burden and C, evidence from collected primary data shows that businesses in Nigeria are faced with multiple levies and taxes (see Section 8.1). This has been confirmed by other studies (e.g., Deloitte, 2014; IWG, 2012; Sanni, 2012; Michael, 2014). In fact, most of the multiple levies and taxes are illegitimate, illegal and inappropriate (see IWG, 2012). Adding to these is the high level of corruption, and high running/operating cost, which arises from the government's inconsistent policies; corruption and mismanagement of the economy (see Sections 8.2.5; 8.3; 9.3). These costs and multiple levies/taxes on businesses, push many into the informal economy in Nigeria. Thus, while tax rates have fallen over time, other unquantifiable taxes/levies have created the 'tax' burden for businesses.

Following these explanations, I am able to employ the generated regression results to carry out remaining analysis regardless of the contradiction between the generated tax burden results and the a priori hypothesis. Additionally, I am able to employ the generated regression results to compute the size of the informal economy because a solution exists. For example, to compute Illegal Money (IM), Currency Demand 2 (CD2) is subtracted from Currency Demand 1 (CD1). However, it is easy to think that the regression results will generate a negative IM, hence, a no-solution, since CD2 appears larger than CD1 when tax burden is set to zero to compute CD2. This is not the case, as a solution, in fact exists. Particularly, I computed IM ($CD1 - CD2$) using the procedure outlined by Dell'Anno and Holicioglu (2010), and Tanzi (1983). The results obtained for earlier years, 1997 to 2007 (inclusive), CD1 values are positive, while CD2 values are negative. The IM values for these years are clearly positive. For the remaining years, 2008 to 2011 (inclusive), the values of both CD1 and CD2 are negative. For these latter years, the negative sign on the tax burden variable makes CD2 larger than CD1, but CD2 is also more negative than CD1. This makes it possible for a positive set of values to be generated for IM, as the rule of two negatives offsets the negative sign, i.e., $IM = (-CD1) - (-CD2)$, and because CD2 is larger, IM becomes positive. For example CD1 is

1.038, 0.57, -0.104, -0.181, and CD2 is -0.648, -1.018, -1.57, -1.63, respectively, for 1997, 2003, 2008, 2011; and for the same years, the IM is 1.686, 1.57, 1.46, 1.445.

7.1.2.1 The Size of the Informal Economy in Nigeria

Based on Equation 7.4, and the step-by-step description in Section 6.5, summarised as:

- run the regression of Equation (6.1; now 7.1 in this chapter) with all variables, including the tax burden variable, to calculate currency demand one (CD1),
- solve the same Equation (6.1 or 7.1) but without the tax burden variable, to calculate currency demand two (CD2); specifically, solve the same regression of Equation 7.1, but equate tax burden variable to zero (Halicioglu and Dell'Anno, 2010). However, the other variables (unemployment, oil prices, GDP, inflation, interest rates, and exchange rates), do not change, i.e., are not set to zero (see Tanzi, 1980). Specifically, Tanzi (1980 pg. 448) notes, "These equations can alternatively be solved in the same way except that (a) for the first alternative [...], we assume that the tax variable, [...], has the lowest value over the period; (b) for the second alternative we assume that the value of the tax variable falls to zero. In both cases it is assumed that the coefficient of the other variables do not change". This is thus also the basis by which all variables are treated in this thesis, as tax burden only is set to zero, whilst other macroeconomic variables are unchanged.
- calculate illegal money holdings (IM) which is the difference between CD1 and CD2 (i.e., $IM=CD1-CD2$),
- compute legal money holdings (LM), which is the difference between IM and narrow money stock (M1), i.e., $LM=IM-M1$; & $M1=CIC+D$,
- calculate the income-velocity (V) by substituting the values of official GDP and LM into Equation (6.3),
- calculate the size of the informal economy by multiplying V by LM;

the size of the Nigerian informal economy is computed and presented in Table 7.2.

Table 7.2: Estimates of the size of the informal economy in Nigeria from 1997-2011.

	V(EQ6.3)	IE as % of GDP	V1997	IE	IE (N'bn)	GDP (N'bn)
1997	0.323818	55%	0.323818	55%	907.33	2801.97

1998	0.301740	43%	0.323818	47%	877.04	2708.43
1999	0.283441	43%	0.323818	49%	1034.28	3194.01
2000	0.249151	46%	0.323818	60%	1483.77	4582.13
2001	0.228547	40%	0.323818	56%	1530.07	4725.09
2002	0.227665	38%	0.323818	55%	2238.35	6912.38
2003	0.217065	34%	0.323818	51%	2748.25	8487.03
2004	0.218935	37%	0.323818	55%	3695.10	11411.07
2005	0.210093	39%	0.323818	60%	4718.75	14572.24
2006	0.199590	36%	0.323818	58%	6011.54	18564.59
2007	0.186095	30%	0.323818	52%	6689.20	20657.32
2008	0.172829	25%	0.323818	47%	7867.58	24296.33
2009	0.172049	22%	0.323818	42%	8028.81	24794.24
2010	0.171813	23%	0.323818	44%	11004.86	33984.75
2011	0.168610	24%	0.323818	47%	12113.97	37409.86
Av		36% ^a		52% ^b		

Notes: N'bn is Nigerian domestic currency, naira, in billions. Column 2 depicts velocity (V) for all years, computed using Equation 6.3, column 3 shows size of informal economy (IE) as percentage of GDP, based on column 2. Column 4 shows a constant V, which is the V for 1997, taken as the base year. Column 5 shows the ensuing size of the informal economy, as percentage of GDP, based on column 4. Columns 6 and 7 show the respective absolute size of the informal economy and GDP in Nigeria. a and b are respectively all years' velocity and constant 1997 velocity's mean-sizes of the informal economy for 1997-2011.

Table 7.2, columns 3 and 5, present two separate results for the size of the Nigerian informal economy as a proportion of official GDP. While column 3 shows the values which emerge from each year's velocity and follows the work of Tanzi (1983), column 5 depicts the results which emerge from using base year velocity, which mimics the work of Feige (1979) and the constant velocity assumption of the quantity theory of money. Specifically, the velocity of circulation for 1997 (chosen as the base year in this study) was used to compute the results in column 5. However, the constant velocity assumption has been seriously questioned (see Dobson and Palfreman, 1999; Hill and Kabir 1996; Klovland, 1984). Schneider *et al.* (2010, pg. 36) for example note, "there is already considerable uncertainty about the velocity of money in the official economy, and the velocity of money in the hidden sector is even more difficult to estimate".

Similarly, Markiw (2007 pg. 86) notes, "the assumption of constant velocity is only an approximation to reality. Velocity does change if the money demand function changes. ... [but the author contends that] experience shows that the assumption of constant velocity is a useful one in many situations". One is that a constant velocity enables us to determine the effects of currency in circulation on the economy. Thus, I use a constant velocity in this study, in order to show the growth of the informal economy and its effects on Nigeria's economy over time. Essentially, by using a base year's velocity, I am able to generate stable and comparable estimates/results, as the fluctuations and extremity that each year's velocity can bring to the measurement are smoothed out. This is a critical assumption which can significantly affect results, as shown in the critical section of Chapter 10. However, the choice of 1997 was not arbitrary, but was influenced

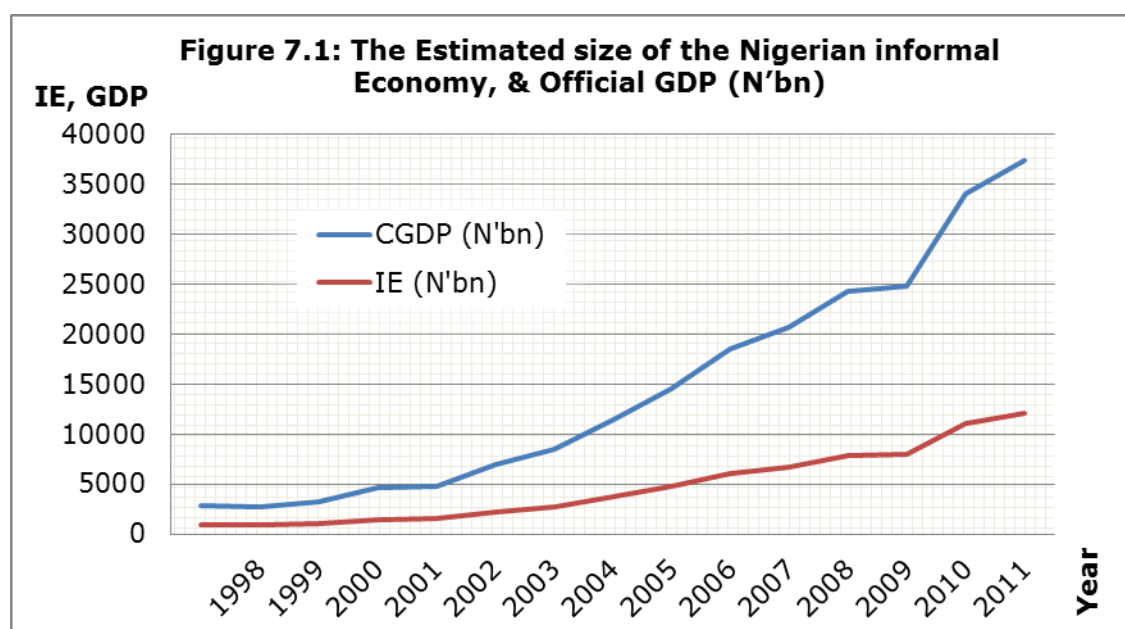
by the work of Feige (1979). Specifically, this approach employs 1997 as the benchmark year because it is the first year for which relevant data are available in Nigeria. Also, the approach assumes no informal activity in the economy before the benchmark year, i.e., 1997. Whilst this assumption may not be realistic for Nigeria, it is both necessary, and follows the approach of Feige (1979), who chose the first year for which studies were based, 1939, as the benchmark year in his study of the US underground economy for the years 1939, 1976 and 1978, and assumed that no informal economic activities took place in the years prior to the benchmark year, *ceteris paribus*. (This assumption does not apply to the MIMIC procedures). Thus by adopting this (Feige's) approach, I am able to compute the size of the Nigerian informal economy for as many years as possible.

Conversely, choosing a later year, say 2000, will reduce the number of years for which results can be computed, using this method. More critically, the research question being answered will be different if a later year (e.g., 2000), rather than the beginning year, is chosen as a base year to compute results for all years (i.e., 1997-2011). According to Tanzi (1980), the aim might now be, to investigate the movement in the size of the informal economy with respect to a given year's level of taxation. This contrasts with the aim for this section, which is to employ the currency approach in computing the size of the Nigerian informal economy for as many years as possible. Thus, the choice of 1997 as the base year in this study follows practices in the literature, and the need to achieve the current study's aim.

Additionally, although not a direct justification for choosing 1997 as base year, the results in column 5 appear closer to what has been computed elsewhere than the ones in column 3 (e.g., see Schnedier *et al.*, 2010). For example, Schneider *et al.*'s estimates of the size of the Nigerian informal economy as a proportion of GDP are 57.9%, 56.3% and 53%, respectively, for 2000, 2003 and 2006. These figures compare reasonably with my estimates in column 5, more than those in column 3. Similarly, in relative terms, the mean of the results in column 5, more than those of column 3, appear close to a true middle, Schneider *et al.*'s average of 56.2% and my average of 52.6% from the MIMIC approach (see Sections 7.2.2, 7.3). Based on these reasons, the results in column 5 are preferred. Thus, subsequent analysis shall be based on them.

It can be seen from the Table (columns 5 & 6) that the size of the Nigerian informal economy is very large; hence, I argue that the informal economy makes significant contributions to the Nigerian economy. Particularly, the average size of the Nigerian informal economy as a percentage of GDP for fifteen years, 1997-2011, using one

method of estimation is 52%, with a range of 42-60% (see column 5). Apart from the increase experienced in 2005, the informal economy as a fraction of official GDP has been falling since the year 2000. The possible reasons for this relative fall in latter years can plausibly be attributed to the very high growth in nominal GDP, oil prices and oil revenue, especially from 2002. For example, Nigeria's GDP, oil revenue, and the international oil prices, respectively, grew from N2,823.93bn, N114.81bn and \$US21.60 in 1996 to N7,128.20bn, N139.30bn and \$US25.04 in 2002, then N14,735.32bn, N565.70bn and \$US55.43 in 2005, and N25,100.00bn, N1,335.96bn and \$US101.2 in 2009 (CBN, 2012; CBN & world bank websites). A second reason could be the prosperity brought about by the return to democracy in 1999, which caused a telecommunications revolution in late 2001, re-capitalisation and a boom in the banking and insurance sectors, beginning from early 2006, followed by mass job creation in the formal economy.



Note: N'bn is billion naira; IE is informal economy; estimates are reported in nominal terms.

However, the relative decline in the size of the informal economy-nominal GDP ratio does not give the whole picture about the Nigerian informal economy, as column 6 shows that the size of the Nigerian informal economy has expanded in absolute terms. For example, it was a meagre N907.34bn in 1997, but has risen to a high of N12,113.97bn in 2011. In addition, Figure 7.1 shows that the Nigerian informal economy and official GDP rise and fall together. Hence, results suggest that a procyclical relationship exists between the informal economy and official GDP growth in Nigeria. This is possibly due to common-third factors which drive the two economies to the same

direction when the economic conditions are normal or in the opposite directions when there is economic crisis (this point is discussed in details in Section 7.2.2). Also, I argue that the Nigerian informal economy complements the formal economy (also see Section 7.2.2 for further discussion). Finally, this result confirms the huge contribution of the Nigerian informal economy, which has also been proven to be very large in size.

To conclude this section, it is worth noting that I have discussed in Sections 6.3 & 6.5.1, a critique of, and justification for using, the currency approach in this study. To restate, on the one hand, this approach's assumptions of same velocity for both formal and informal economies, and that participants in the informal economy use only physical cash to carry out their activity have been criticised. I also noted that there are debates about the robustness of the results from this approach, as conflicting evidence is reported (see Sections 6.3 & 6.5.1). Evidently, the results reported here appear unstable. For example, nominal GDP data were used to compute regression results, as attempts to use real GDP data led to an inconclusive outcome. Even such diagnostics as a multicollinearity test could not be completed due to the unstable nature of the generated results. Beyond the limitations associated with the currency approach, some of the challenges encountered in this study can possibly be traced to unavailability of sufficient, and/or unreliability of necessary, secondary data. In some years (e.g., 2001), for example, I found discrepancies between Nigeria's GDP data reported on the World Bank website and on the Nigerian Bureau of Statistics/CBN websites.

Thus, results reported and accompanying analyses should be viewed within the context of the identified limitations in the current study, which represents the first such detailed study to be conducted on the Nigerian informal economy. It is expected that future studies will look to reducing the effects of these limitations. Additionally, I have presented in Sections, 6.3 & 6.5.1, the justification for using this method in the current study. Notably, the currency method is used to compute results which are compared with the MIMIC method's output. It is also used to generate a partial input for the MIMIC approach. Finally, the currency and MIMIC approaches best suit Nigerian studies, as explained and justified in Section 6.3. In the following section, the MIMIC method is utilised.

7.2 Results of the MIMIC Method:

The MIMIC model is laid out in Section 6.5.2, and the process is summarised as:

- Use Equations (6.4) to (6.8) to compute the MIMIC results.
- Multiply each statistically significant variable in the MIMIC result by its time series data to compute each year's MIMIC index. Sum up all years' MIMIC index to derive total MIMIC index.
- Use a base-year index and exogenous value of the informal economy to convert each year's index into an absolute value of the informal economy.
- Use Equation (6.9) as the benchmarking equation to compute the absolute size of the informal economy.

Building on the above steps, the size of the Nigerian informal economy covering a period of forty three years, 1970 to 2012, is estimated and presented in Table 7.4. My aim in this section is to first, determine the best model from the three presented in Table 7.3, then, use it to estimate the size of the informal economy in Nigeria.

Table 7.3: MIMIC model output for the period, 1970-2012

Path	A: coeff. & p-values	B: coeff. & p-values	C: coeff. & p-values
SOG→INFEC	.892***		
TB→INFEC	.242 (.054)		
BF→INFEC	1.062 (.587)		
GPOP→INFEC		2.43***	.606 (.34)
TOPN→INFEC		.162***	
RGDPPC→INFEC		-2.08***	
TB12→INFEC		-.04 (.339)	.156***
INFEC→CUR	1		
INFEC→GGDPPC	-9.65***(.052)	-25.2***	-29.1***
INFEC→UNR			
INFEC→UNR2	-4.985***		
INFEC→CUR3		1	1
<i>CMIN</i>	9.6 (.385)	6.3 (.394)	4.2 (.124)
<i>NFI</i>	.8	.94	.9
<i>IFI</i>	.98	.997	.94
<i>CFI</i>	.98	.997	.91
<i>RMSEA</i>	.068	.032	.155
AIC (D; S; I)	46, 54, 70	48, 54, 124	40, 40, 49

Notes: () and *** are respectively p-values and significant at 5% level, SOG=size of government, BF=business freedom, POP=growth in population, TOPN=trade openness, RGDPPC= real GDP per capita, TB12=tax burden, GGDPPC=growth in GDP per capita, CUR3=currency, UNR=unemployment rate, INFEC=informal economy. The diagnostics include: *CMIN*, *CMIN/DF*, *NFI*, *IFI*, *CFI*, *RMSEA*, and AIC. All variables, except TB12, are significant at the 5% level, and are in real terms.

Results presented in Table 7.3 have been computed using procedures that have been employed in the literature (e.g., Schneider *et al* 2010; Vuletin, 2008), as outlined in Section 6.5.2. To reiterate, MIMIC models, as confirmatory techniques, are used to confirm existing theory, hence then fulfil two goals: (i) estimate parameters (e.g.,

coefficients, variances) and (ii) assess the fit of the model (see Section 6.5.2; Schneider *et al.* 2010). Generally, a structural equation model (SEM) seeks to “determine the goodness-of-fit between the hypothesised model [i.e., an existing theory] and the sample data” (Byrne, 2010, Pg. 70). It is worth restating that MIMIC models are a particular type of SEM (see Section 6.5.2).

To achieve the objective set out in this section, over 20 models, built by combining various literature-led defined causal and indicator factors (see Schneider *et al.* 2010; Vuletin, 2008) were tested, with the results of the three best-fitting models presented in Table 7.3. This procedure is similar to Schneider *et al.*'s (2010), who reported seven specified MIMIC-models, which were different combinations of the following variables: size of government, tax burden, fiscal freedom, business freedom, unemployment rate, GDP per capita, and government effectiveness as causal variables; and growth rate of GDP per capita, labour force participation rate, growth rate of labour force, and currency as indicator factors. While the overriding ideology behind the selection of variables is based on theory and evidence from the existing literature (see Chapters 2-4), building different models with the variables is aimed at achieving the most statistically significant result. The latter is also an attempt to overcome the problems of “data limitations” and capture the variables that are relevant to the country of study (Schneider *et al.*, 2010 pg. 13).

Generally, the important diagnostic statistics for a SEM are *CMIN*, *NFI*, *CFI*, and the *RMSEA* (see Schneider *et al.* 2010; Byrne, 2010). Each of these will be discussed shortly. Also in SEM, the null hypothesis is not rejected if the test statistics for the model are statistically significant. The SEM hypothesised model is different from the traditional statistical process, as the former postulates that the null hypothesis (H_0) holds in the population (Byrne, 2010).

CMIN represents the minimum discrepancy test. It tests the extent to which the “specification of the factor loadings, factor variances and covariances for the model under study are valid; [it] simultaneously tests the extent to which this specification is true.” (Byrne, 2010, Pg. 76). As a rule, the *CMIN* is expected to have an associated large probability, particularly, the closer to 1 the *p*-value the better the fit of the hypothesised model to the actual model. Going by the *CMIN*, model B would be adjudged the best model, as its *CMIN* is small and its *p*-value is the highest. Specifically, model B shows that the *CMIN* of 6.3 is achieved with a probability of 0.394. The literal interpretation is that in every case, the relations depicted by the model would occur at a rate of 39.4%.

However, the p -value for model B is not as close to 1 as expected. This is not a problem if other diagnostic criteria are met. In fact, in the SEM literature, achieving a p -value close to 1 for the *CMIN* has proven to be very difficult, as the test statistic is subjective to sample size. Additionally, a hypothesised model can, at best, only approximate a real world model, not fit it perfectly (see Byrne, 2010).

Closely related to, but also serving as mitigants to the drawbacks of, the *CMIN* statistics are the *NFI* and *CFI*. As a goodness of fit measure, the *NFI* and *CFI*, like the p -values of the *CMIN*, are expected to be very high. As a rule, their values must lie between 0.95 and 1 for the model to fit. Again, model B passes this criterion, as the *NFI* and *CFI* values are well over 0.95. Conversely, SEM also has a group of diagnostics called the badness of fit measure. The most important of such measures is the root mean square error of approximation (*RMSEA*). Unlike goodness of fit measures that take on high probabilities, the badness of fit measures predict a good model with a very low probability. In fact, they are expected to take on values less than 0.05. With an *RMSEA* value of 0.032, model B is better than the other two (Table 7.3). From this point of view, model B would form the basis of subsequent analysis.

7.2.1 Variables definition

Generally, variables for all models tested were selected on the basis of findings in the literature, data availability, and relevance to the context of study. In the process of achieving the best-fitting model presented in Table 7.3, several models were tested. In particular, several variables, selected on the basis of findings from the literature, were initially built in to the model, but the ones that did not contribute to the overall goodness of fit of the model were then deleted. This is the practice in the literature (see Schneider *et al*, 2010; Byrne, 2010). Thus, the variables which survived the model testing process, and included for this study, are: population growth (*GPOP*), trade openness (*TOPN*), real GDP per capita (*RGDPPC*), tax burden (*TB12*), and growth in GDP per capita.

Population growth (GPOP): Population growth is the net increase in the population of a country over time. It has been reported in the literature to be responsible for an expansion in the size of the informal economy. A positive relationship is hypothesised, as a growth in population, if not matched with an increase in government capacity to create formal jobs, induces informal economic activities. Data on population are collected from the CBN statistical bulletin.

Trade openness (TOPN): Trade openness is measured by the ratio of total trade to GDP; hence, a relatively high ratio is indicative of an economy that is highly involved in trade. While this could be relatively beneficial to highly industrialised economies, it is a different experience for emerging economies, as the latter are disadvantaged by the international terms of trade (see Prebisch and Singer, 1950; Cuddington *et al.*, 2002). This is partly due to the claim that emerging economies specialise in exporting primary commodities. Arguably, most of these primary commodities are produced in the informal economy. In contrast, emerging economies have experienced a high influx of imported manufactures and services into their country. There are debates about the quality of some of these imports. For example, as an emerging country, Nigeria has arguably been turned into a dumping ground for all kinds of manufactures, inferior and sub-standard products by some of its trading partners from the highly industrialised economies and Asian tigers (see Matthew and Adegboye, 2013; Genty *et al.*, 2013; Aluko *et al.*, 2004). Again, such inferior and sub-standard products are often traded in the informal economy. Based on this, I hypothesise a positive relationship between trade openness and the size of the Nigerian informal economy. Data on total trade have been obtained from WB database.

Tax burden (TB12): This variable, proxied as the ratio of total taxes to current GDP, was intended to measure the effect of tax burden. However, the variable is omitted from the subsequent analysis, as it was statistically non-significant (see Table 7.3).

Real GDP per capita (RGDPPC) & growth in GDP per capita (GGDPPC): GDP has been discussed in Section 7.1. The only difference here is that, while real GDP per capita is simply the ratio of real GDP to total population, per capita GDP growth is the difference in per capita GDP in the current year over the previous year. However, while RGDPPC is used as a causal variable, GGDPPC is used as an indicator of the Nigerian informal economy.

7.2.2 The size of the Nigerian informal economy:

From Table 7.3, the relevant structural equation for the Nigerian informal economy is given as:

$$H_t = 2.43GPOP + .162TOPN - 2.08RGDPPC \dots\dots\dots(7.5)$$

Where, H_t is the value of the MIMIC index at time t ; GPOP, TOPN, and RGDPPC are as defined in Section 7.2.1.

As noted in Section 7.2.1, TB12 is omitted from Equation 7.5 since it is statistically non-significant. Suffice it to say this practice is universal in the literature (see example, Schneider *et al.*, 2010). Equation 7.5 is important as it depicts information about the pattern of the informal economy over time. For example, Equation 7.5 shows that population growth, trade openness and real GDP per capita are the variables which determine the size of the Nigerian informal economy. Specifically, a 1% rise in GPOP and TOPN will induce, respectively, 2.43% and 0.162% expansions in the size of the Nigerian informal economy. Conversely, a 1% rise in RGDPPC will bring about a 2.08% reduction in the size of the Nigerian informal economy.

However, Equation 7.5 is limited when it comes to computing the size and trend of the informal economy, hence, further calibration is required for this objective to be achieved (see Section 6.5.2). The practice in the literature is to choose a base year's MIMIC index, and an exogenous estimate of the informal economy for the chosen benchmark-year (see Section 6.5.2). Building upon the practice in the literature, I use three base years, 1970, 1988 and 1999, as benchmarks, to estimate the size of the informal economy in this study. By employing the three base years, I generate three different estimates for the Nigerian informal economy. I then take the average of the resulting estimates, in order to compute the yearly estimate of the size of the informal economy in Nigeria.

I have chosen this approach in order to eliminate the extremities that are likely to be associated with results computed from only one base year. My novel approach is further justified by the fact that no consensus criterion exists for choosing a benchmark, and the benchmark chosen can influence the size of the final estimates. Needless to say the three base years were systematically chosen; 1970, 1988, and 1999 respectively represent beginning years for which estimates are made, the SAP era, and return to democracy era and end-years for which estimates are made.

The exogenous estimate for 1970 is the average of the estimates of Salisu (2001) and Ogbuabor and Malaolu (2013), for the Nigerian informal economy's size for that year. However, the 1988 estimate was taken only from the estimate of Salisu (2001), as no other estimates exist for that year for Nigeria, except that of Ogbuabor and Malaolu (2013), which I consider too high. Adding the latter in particular, affected results, which generated several outliers, as they deviated significantly from the few existing estimates on Nigeria's informal economy. For its part, the 1999 exogenous estimate for the Nigerian informal economy is the average of Schneider *et al.*'s (2010) estimate and my

estimate from currency approach, for the same year. Thus, the size of the Nigerian informal economy M_t at time t is given by:

$$M_t = (Q_t/q_{BY})K^*_{BY} \dots\dots\dots(7.6)$$

Where, Q_t represents the value of the MIMIC index at time t (i.e., each year's MIMIC index), q_{BY} represents the value of the index for the base year, K^*_{BY} represents the exogenous estimates (base value) of the informal economy for 1999. The procedure depicted by Equation 7.6 has thus been employed to compute the size of the Nigerian informal economy (see Table 7.4).

Table 7.4: Size of the Nigerian informal economy vis-a-vis GDP.

	IE1970BY R (%)	IE1988BYR (%)	IE1999BYR (%)	Avrg.of3BYR (%)	CGDP (N'm)	IE (N'm)
1970	45	42.20	51.82	46.34	8961.5	4152.89
1971	50.22	47.10	57.84	51.72	10375.4	5366.31
1972	50.70	47.55	58.39	52.21	11034.7	5761.39
1973	52.14	48.90	60.05	53.70	12251.6	6578.80
1974	56.49	52.98	65.05	58.17	19604	11404.36
1975	52.1	48.86	59.99	53.65	22945.4	12310.18
1976	55.19	51.76	63.56	56.84	28611.4	16261.82
1977	56.78	53.25	65.39	58.47	33585	19638.61
1978	51.90	48.68	59.77	53.45	36053	19270.05
1979	53.78	50.43	61.93	55.38	42912	23766.22
1980	54.46	51.08	62.72	56.08	50270	28193.6
1981	46.04	43.18	53.02	47.41	50751	24062.99
1982	44.75	41.97	51.54	46.06	51953	23943.04
1983	41.32	38.75	47.58	42.55	57144	24315.65
1984	38.34	35.96	44.16	39.49	63608	25117.44
1985	41.00	38.45	47.21	42.22	72355	30550.03
1986	40.95	38.40	47.16	42.17	73062	30809.53
1987	39.60	37.14	45.61	40.79	108885	44409.31
1988	42.39	39.76	48.82	43.66	145243	63410.76
1989	44.27	41.52	50.98	45.59	224796.6	102491
1990	46.68	43.78	53.76	48.07	260637	125291.9
1991	47.67	44.71	54.90	49.09	328115.3	161074.6
1992	47.84	44.86	55.09	49.26	620077	305471.1
1993	47.68	44.72	54.91	49.10	967280	474934.6
1994	46.55	43.66	53.61	47.94	1237122	593049.3
1995	46.54	43.65	53.59	47.93	1977737	947831.9
1996	47.34	44.40	54.52	48.75	2823932	1376782

1997	47.42	44.47	54.61	48.83	2939651	1435553
1998	47.12	44.19	54.26	48.52	2828656	1372555
1999	46.46	43.57	53.50	47.84	3211150	1536310
2000	47.75	44.79	54.99	49.18	4676394	2299693
2001	48.01	45.03	55.29	49.44	5339063	2639801
2002	47.54	44.59	54.75	48.96	7128203	3489875
2003	51.12	47.94	58.87	52.65	8742647	4602639
2004	55.11	51.68	63.46	56.75	11673602	6624861
2005	56.59	53.07	65.17	58.28	14735324	8587507
2006	58.54	54.90	67.41	60.28	18709577	11278499
2007	60.67	56.90	69.87	62.48	20874172	13042652
2008	62.59	58.70	72.08	64.46	24552776	15826679
2009	65.15	61.10	75.03	67.10	25102938	16842918
2010	68.44	64.19	78.82	70.48	34363818	24221194
2011	71.47	67.03	82.30	73.60	37754438	27787903
2012	74.06	69.46	85.29	76.27	41179150	31406191
AVG	51.07	47.89	58.81	52.59		

Note: these results are my estimates of the Nigerian informal economy, based on the MIMIC approach. IE1970BYR= size of informal economy@1970 benchmark, IE1988BYR=size of informal economy@1988 benchmark, IE1999BYR=size of informal economy@1999 base year, Avg.of3BYR=average of the estimates for the three years estimates, CGDP=current GDP, IE=informal economy.

Table 7.4 provides a summary of the final output from the MIMIC approach. Specifically, my estimates of the size of the Nigerian informal economy as a proportion of GDP, for each of the base years, 1970, 1988 and 1999, using the MIMIC approach, is shown in columns 2, 3 and 4 respectively. The average of the three estimates (i.e., average of columns 2, 3 and 4) is given in column 5. All subsequent analysis, except where indicated, will be based on column 5. Column 6 depicts current GDP in millions of domestic currency, the naira. Finally, the absolute size, in millions of naira, of the Nigerian informal economy is shown in column 7.

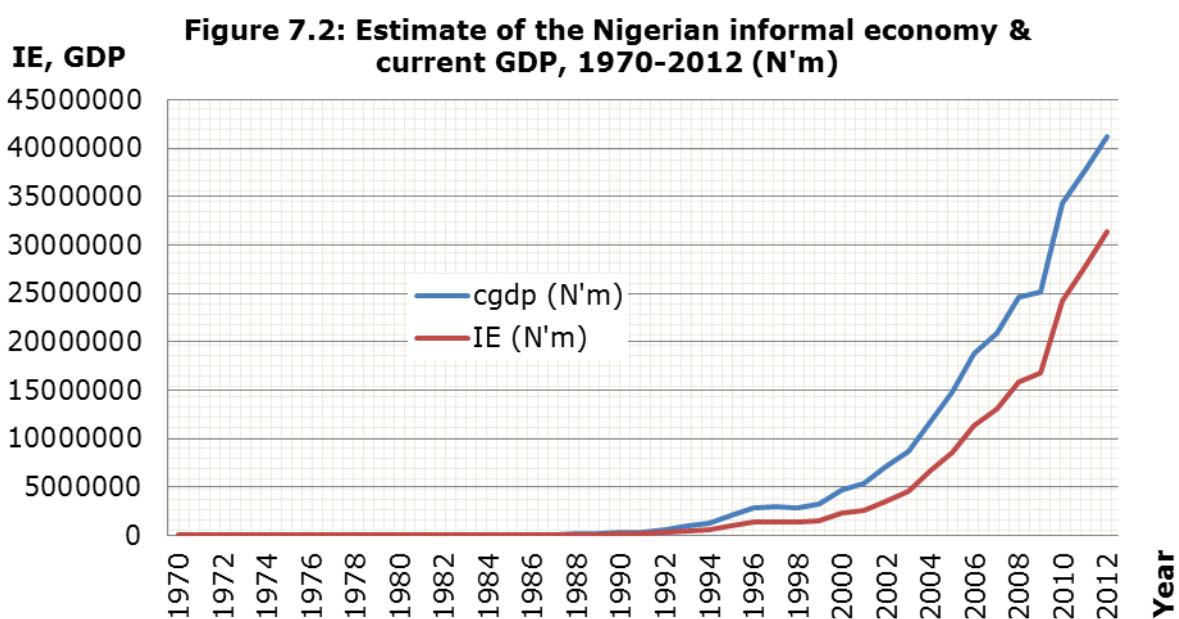
With 39.49%, the informal economy in Nigeria recorded its lowest size, as a fraction of GDP, in 1984, and has since been expanding, recording its highest percentage in 2012 (76.27%). On average, the Nigerian informal economy's contribution to the economy was 52.59% of GDP, over the forty three years (1970-2012) studied. Additionally, it can be seen from columns 6 and 7 that as with the currency approach both GDP and the informal economy tend to rise and fall together. This is clearer when the relationship is graphed (see Figure 7.2). Finally, the yearly change in the size of the informal economy is plotted against the change in GDP for the same period (Figure 7.3). It can be seen that for some years (particularly, in 1999, 2009, 2011, & 2012), the annual change in

GDP is less than the annual change in the size of the informal economy curve. This underscores the role played by the informal economy in Nigeria. Particularly, it shows that the Nigerian informal economy is large (52-53% of official GDP), and tends to grow faster than the official economy in some years, as shown by Figure 7.3 and Table 7. 4.

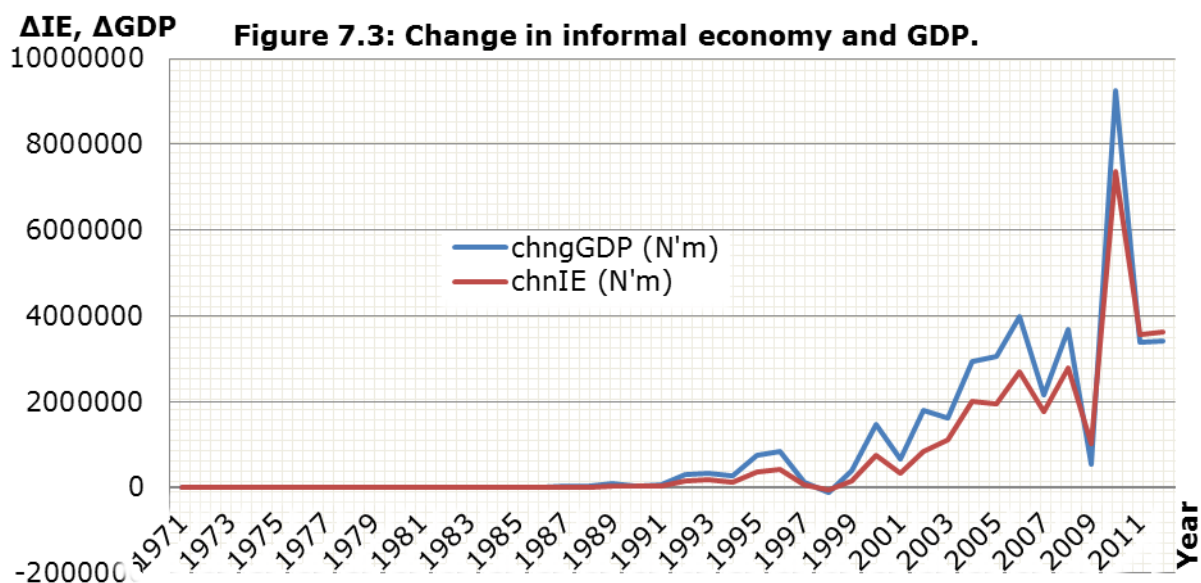
Although my results suggest a procyclical relationship between the Nigerian informal and formal economies, the relationship appears more complex, as the factors underpinning the direction of relationship are unclear. One way to look at it is to argue that common third factors drive this relationship. Such factors as government policies, economic fluctuations, business environment, employment, economic performance, need to survive, income, profit, and competition can drive the formal and informal economies to same or opposite directions, depending on the net effect a factor has on the formal or informal economy. For example, the results of the MIMIC approach, discussed in Section 7.2.1, shows that the Nigerian informal economy is determined by three factors: population growth, trade openness, and growth in real GDP per capita. Going by these results, if there is growth in population higher than the created formal job opportunities, there will be a gap that is left behind for the informal economy to close. In this scenario, the formal and informal economies will grow together, and if under a normal economic condition, the formal, will grow faster than the informal, economy. However, during economic downturns, common external-factors can either make the informal economy to rise faster than the formal economy (meaning more jobs are being created in the informal than the formal economy), or make both economies to move in opposite directions (meaning the formal economy is not able to create but cut jobs, whilst the informal economy is creating jobs and absorbing those displaced from the formal sector).

These results have important implications. Firstly, they suggest that Nigeria's recorded GDP figures should in fact be 152-153% of what they are currently. Secondly, the results suggest that the informal economy serves as a stabilising force in Nigeria. Although its relationship with the formal economy appears procyclical in Nigeria, as it complements the formal economy (see Figures 7.2 & 7.3), the informal economy seems to play a far greater role in the latter. Specifically, it appears to stabilise the economy during periods of GDP contraction, as the fall in the size of the informal economy is less than the fall in the size of GDP (see Figure 7.3). Thus, during an economic downturn, jobs and businesses negatively affected turn to the informal economy in Nigeria to, respectively, take up employment and engage in informal business activities. Finally, these results justifiably reemphasise the need for all stakeholders in Nigeria to give quality attention to the informal economy.

Finally, it is worth noting that Figures 1, 2 and 3 depict results that have been estimated in nominal terms. It could be argued that this, potentially, limits the analysis that can be carried out with these figures, as much of the increases depicted by the figures might be down to inflation. On the one hand, I accept that this is plausible, and should be considered when interpreting results presented here. On the other hand, I will argue that the analyses carried out with these figures in this thesis tend to be valid, since the two concepts (GDP and Informal Economy) being analysed are in the same nominal terms. Also, considering that the informal economy is a sub-set of the larger economy, which GDP measures, common factors tend to pull both concepts in the same direction. For example, if inflationary tendencies are responsible for the fluctuations in one, they will also be responsible for the fluctuation in the other. It can also be argued that if real factors are responsible for the fluctuations in one, they will also explain movement in the other. Thus the graphed relationship between GDP and the informal economy will tend to be similar, regardless of whether the formal is based on nominal or real terms.



Note: I constructed Figures 7.2 & 7.3 by using my estimates from the MIMIC approach. These estimates are reported in nominal terms.



7.3 Comparing the results from both approaches

Table 7.5 compares the output generated from employing the MIMIC and currency approaches. Although there appear to be no trend similarities when the MIMIC results for 1999-2011 are placed side by side with the currency approach's results for the same period (see Table 7.5a), the summarised version in Table 7.5b shows a different picture. Specifically, while the MIMIC results indicate that the informal economy in Nigeria has been growing consistently, the currency results, at first, show a staggered pattern and later, a decline in the size of the informal economy (Table 7.5a). Again, this pattern is shown in Table 7.5b. Particularly, the highest proportion of the currency approach results occur in earlier years. The opposite is true for MIMIC, which experienced its lowest values in earlier years.

Table 7.5a: The Currency approach Vs. the MIMIC approach

	IE as % of GDP	
	Currency	MIMIC
1997	55%	48.83%
1998	47%	48.52%
1999	49%	47.84%
2000	60%	49.18%
2001	56%	49.44%
2002	55%	48.96%
2003	51%	52.65%
2004	55%	56.75%
2005	60%	58.28%
2006	58%	60.28%
2007	52%	62.48%
2008	47%	64.46%
2009	42%	67.1%

2010	44%	70.48%
2011	47%	73.60%
Avg.	52%	57.3%

Table 7.5b: The Currency approach Vs. the MIMIC approach

	Informal Economy as % of GDP	
	Currency	MIMIC
Estimation period	1999-2011 (13yrs)	1970-2012 (43yrs)
Lowest estimate (and year)	42% (2009)	39.49% (1984)
Highest estimate (and year)	60% (2000&2005)	76.27% (2012)
Mean (for overall result)	52%	52.6%

However, the overall mean from the two approaches (see Table 7.5b) suggests that the methods can possibly generate similar results. (It may take another set of data to confirm this). In particular, the respective means for the currency and MIMIC approaches are 52% and 52.6%. Although, considering the large discrepancies arising from year by year estimates of the two approaches, which makes it difficult to justify claims for methods convergence, these mean estimates confirm that the size of the Nigerian informal economy, on a yearly basis averages 52-53% of the official GDP. If this is compared with oil revenue, which contributed 25.1% to GDP in 2011, and which is officially the main source of revenue for the Nigerian government (see Section 7.1.1), it means the informal economy contributes more to the Nigerian economy, and can be particularly useful if its potential is fully harnessed in Nigeria. I like to remind the reader that what is discussed here, compared with the MIMIC approach estimates, is the currency approach's estimate based on 1997 base year velocity. Considering the justifications provided for choosing 1997 as the base year (see Section 7.1), the analysis can be accepted. However, if the assumption of a 1997-base year velocity is relaxed, with velocity allowed to vary from year to year, a significant discrepancy between the estimates and means of the two methods, MIMIC and currency approaches, would then result.

Conclusion

In this chapter I have utilised secondary data and two approaches, the currency and MIMIC approaches, to compute the size of the Nigerian informal economy. The results from both approaches do not appear to be statistically different from each other, and they show that, on the average, the Nigerian informal economy contributes an equivalent of 52-53% of the Nigerian official GDP. A critical assumption of a constant velocity makes this possible. However, a different conclusion will ensue if this

assumption becomes invalid. Results also show that both the formal and informal economies in Nigeria appear to rise and fall together. Based on the results, I assert that the informal economy makes important contributions to the Nigerian economy.

Specifically, the variables which enabled us to compute the size of the informal economy are the variables which determine the well-being of the Nigerian economy. They are current GDP, CPI, average savings rate, bilateral exchange rate, oil prices, tax burden, and level of total unemployment that were reported to have a long-term relationship with currency. However, tax burden, which is a key variable for currency approach assumed *posterior* sign which contradicted the *a priori* hypothesis. It was explained that two factors are possibly responsible for this: tax burden not being a strong determinant of currency holding, or its effect being dwarfed by other determinants of currency holding, hence size of the informal economy in Nigeria, and the exogenous reduction in the overall tax rates. I argued that the latter was plausibly elicited by the increased contribution of oil revenues to the government's total revenues.

Additionally, I employed a novel approach in my application of the MIMIC technique, by using three base years as benchmarks, to estimate the size of the informal economy in Nigeria. The results of the MIMIC model show that the variables, which determine the size of the Nigerian informal economy are population growth, trade openness and real GDP per capita. Specifically, a 1% rise in population and trade openness, respectively, leads to 2.43% and 0.162% expansions in the size of the Nigerian informal economy. Conversely, a 1% rise in RGDPCC will bring about a 2.08% reduction in the size of the Nigerian informal economy. Also, the computed yearly size of the informal economy depicts a rising trend over time. The results also show that the informal economy has grown faster than the official GDP in some years. Finally, I also found a procyclical relationship between the formal and informal economies in Nigeria.

The next chapter focusses on the analysis of the collected primary data. Specifically, in Chapter 8, I will use the primary data collected for this research to analyse the characteristics, regional prevalence, and determinants of the Nigerian informal economy.

Chapter Eight Regional & Primary Data Analyses

8.0 Background

Chapter 7 utilised secondary data to estimate the size of the informal economy in Nigeria. This chapter builds upon that by looking at other evidence, notably the results of an extensive questionnaire administered to 1200 respondents, of which 641 were returned at a success rate of 53%, conducted between June 2012 and April 2013. The total sample combines responses from both participants and non-participants in the informal economy, as shown in Chapter 6. While it is possible to carry out some analysis with this (total) sample, other analyses are best carried out using information supplied by only those who are engaged in the informal economy. For example, to present a robust analysis of the characteristics, determinants and regional prevalence of the informal economy, one must necessarily utilise the information that is sourced from only those who are engaged in an activity in the informal economy.

This made it more than necessary for me to create a sample (419 responses) of respondents who are actually engaged in the informal economy in Nigeria from the total sample of 641 respondents. While information drawn from the full sample is used in Section 8.1, discussions in subsequent sections are based on the former. Thus, by creating the database for the Nigerian informal economy (NIED), I am now able to carry out an analysis of the characteristics (Section 8.2), determinants (Sections 8.3 & 8.4), and regional prevalence (Section 8.5) of the Nigerian informal economy.

Also, in presenting and discussing responses to any given question, I use only valid responses. This implies that participants who skipped a question under consideration are not considered when analysing such questions. For example, in Table 8.1, although I expected 641 total responses to each of the two questions presented, the actual numbers of responses are different. Specifically, the second and third rows, respectively, show that 504 and 503 respondents answered the questions. Thus, analysis is based on the full-set of actual (504 and 503) responses.

Additionally, it is worth recognising that the data underpinning all analysis in this chapter are based on the perceptions/opinions of those who participated in this research through the administered questionnaire. The philosophical stance for my research, as discussed in Chapter 6, enables me to accept this as a source of the knowledge-gaining process. To restate, the epistemological position I have taken for this research is *methodological*

triangulation, particularly, the mid-way between *positivism*, *realism* and *interpretivism* (see Chapter 6).

Like all surveys, data used for analysis in this section have been critiqued in Chapter 6. Particularly, it was explained in that chapter that due to the security challenges in parts of Nigeria, cost and time constraints, and low responses from FIWON participants, additional surveys were conducted in different locations across the remaining majority of regions of Nigeria. This, as explained earlier, possibly introduced geographical and non-representativeness biases to my sample. Although weighting could possibly have removed such biases, this was not done because, in the absence of clear data, the weights themselves could introduce arbitrariness to the sample. Additionally, it was explained that these biases are quite possibly modest, since the different locations from which the additional surveys were collected, were diverse. However, a word of caution is necessary here; discussions in this chapter, especially with respect to participants' characteristics (e.g., level of education, income, age, religion, marital status, sex) should be read with this qualification in mind.

The remainder of this chapter is structured as follows. Section 8.1 discusses all participants' responses (i.e., total sample) to questions relating to the size and role of the Nigerian informal economy. This is followed by an analysis of the characteristics of participants (and enterprises) in the Nigerian informal economy in Section 8.2, and determinants of the Nigerian informal economy in Section 8.3, using the NIED. I then, employ the MIMIC technique to model the determining factors of the informal economy in Nigeria in Section 8.4. I also carry out a regional analysis of the Nigerian informal economy in Section 8.5, and conclude the chapter with a brief summary of key points.

8.1 The Size of the Nigerian Informal economy

In support of the evidence from secondary data presented in Chapter 7, this section utilises primary, cross-sectional data, collected for this study, to analyse the size and role of the Nigerian informal economy. To begin, I present in Table 8.0 a summary of the number of questionnaires administered, number returned, and brief characteristics of the respondents. Additionally, I present in Table 8.1, the responses to two questions which were directed at finding out what participants thought was the size of the informal economy at the state (regional) and country-wide (national) level respectively (see Appendix).

Table 8.0: A summary of research's total sample.

Item description	Total number (proportion) of responses
No. of administered questionnaire	1200+
No. of completed questionnaire received back	641
Proportion of male respondents	67%
Proportion of married respondents	72%
Proportion of respondents that are Christians	86%
No (proportion) of respondents engaged in the informal economy	419 (65.4%)

It can be seen from Table 8.0 that the informal sector participation rate in Nigeria is 65.4% (i.e., the actual number of participants in the informal economy as a proportion of total respondents). Although this possibly includes both individuals whose activities in the informal economy are their main job/business and others who engage in the sector as a second job/business activity, the result tends to corroborate the findings in Chapter 7 that the Nigerian informal economy is large.

Table 8.1: Perception on the participation rate in the Nigerian informal economy

How many Category	1	2	3	4	5	6	7	8	9	10	Total %	Total responses
State/region (%)	2.8	6.0	4.4	7.1	13.5	16.3	18.5	17.1	11.5	3.0	100	504
National (%)	3.0	3.4	5.4	7.8	12.9	18.9	21.3	20.3	6.4	0.8	100	503

Additionally, it can be seen from Table 8.1 that the highest proportion (18.5% for state/region, 21.3% for nation) of respondents is of the opinion that 70% of Nigerians engage in informal economic activities. Closely following is the proportion of participants who chose 8 informal participants; 17.1% for state/region and 20.3% for the nation. In fact, about half (50.1% for state/region and 48.8% for nation) of respondents think that at least 70% of Nigerians are engaged in activities in the informal economy. This increases to two-thirds (66.4% state/region, 67.7% national) respondents for 6 out of 10, and an overwhelming 80% of respondents for 5 out of 10, Nigerians participating in the informal economy.

Going by these results, it appears that the activities and size of the Nigerian informal economy are not revealed by secondary data alone. They tend to be perceived by, and known to, most Nigerians. This credibly justifies the quality of responses presented in Table 8.2, as respondents are asked to answer questions which relate to the relevance or otherwise of the Nigerian informal economy and its activities. Additionally, the results in Table 8.1 tend to suggest that informal activities (at least, in Nigeria) are not as hidden as widely claimed in the literature. It appears to have gained recognition from

both policy makers and citizens. For example, the policy environment has been associated with the evolvment of the informal economy in Nigeria, as successive administrations since the 1960s had thought that the informal economy was capable of stimulating the economy for growth (see Meagher and Yunusa, 1996). Again, more recently, the Nigerian minister of labour and productivity, Wogu (2012) made a strong case for “policy integration in favour of the informal economy which has the potential to absorb large army of unemployed youths in developing countries” (ThisDayLive, 19 June, 2012). Thus, the informal economy is arguably perceived as an essential part of the Nigerian economy.

The Role of the informal economy: Table 8.2 shows participants’ perception on questions which examine the role of the Nigerian informal economy in poverty reduction, employment creation, income generation, and the overall well-being of the Nigerian economy.

Table 8.2: Respondents’ perceptions on various indicators

	Valid percentages (%)					
	A	B	C	D	E	F
Strongly Agreed	10.2	19.6	29.3	7.8	5.0	28.1
Agreed	19.4	47.5	43.7	18.0	6.9	45.7
Neither	15.7	15.0	12.2	16.7	8.9	11.5
Disagreed	31.2	10.5	9.1	35.2	27.5	10.5
Strongly Disagreed	23.6	7.4	5.7	22.2	51.8	4.2
Total	100	100	100	100	100	100
Total responses	581	592	583	599	597	598

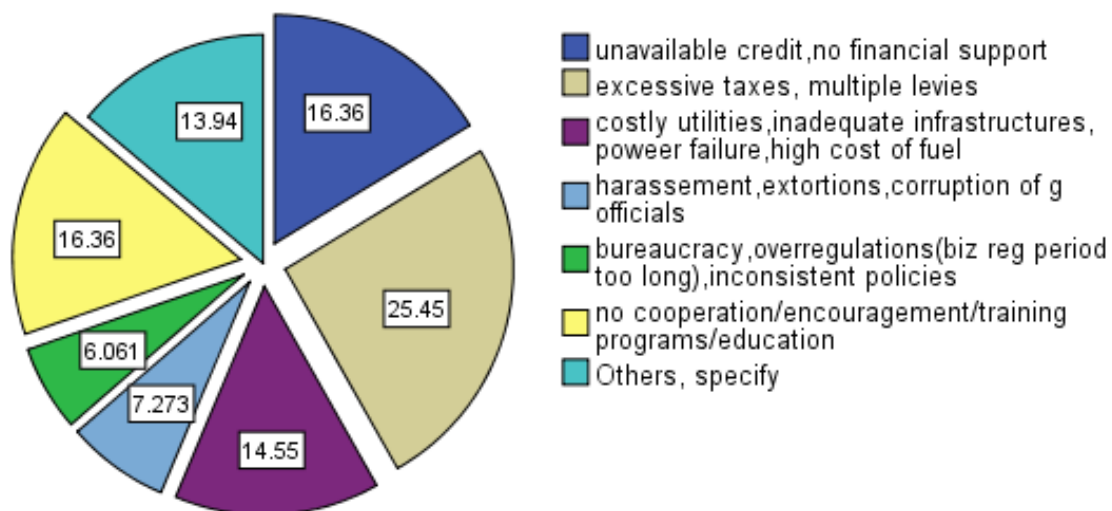
Note: A - People are poor because they work or do business in the informal sector as participants are disadvantaged; B - Informal sector helps people that are poor to overcome poverty in Nigeria; C - Informal sector activities are good for Nigeria’s economy; D - Government does not have sufficient revenue because informal workers do not pay tax; E - Government should discourage the informal sector as it is harmful to the Nigerian economy; F - It is very risky if tax authority finds out that you do not pay tax.

The effect of informality on poverty (Table 8.2, Columns A & B): It is clear from Column A that over half of respondents disagree with the statement that people are poor because they participate in the informal economy (precisely 53.8%; 31.6% of disagreed + 23.6% of strongly disagreed). In corroboration, Column B shows that over two-third (67.1%) of respondents agree with a contrasting statement to A, particularly, that the informal economy enables people who are poor in Nigeria to overcome poverty. These consistent responses show that the informal economy enables individuals to overcome poverty in Nigeria.

Tax burden & perception (F): Column F of Table 8.2 shows that a large majority (75.3%) of respondents agree with the following statement: ‘it is very risky if tax authority finds out that you do not pay tax’. This has important implications. To begin, it

suggests that participants in the Nigerian informal economy are highly aware of the risk and heavy consequence(s) that arise from not paying tax. Thus, in order to avoid these risks and consequences, they pay their share of taxes to the government (though it remains unclear if the taxes paid by informal participants go to the government purse, or are diverted by corrupt government officials). This assertion is justified by Figure 8.1, which shows that excessive taxes and multiple levies (25.45%) are the biggest problem experienced by those engaged in the Nigerian informal economy. This is followed by harassment, extortions and corruption of government officials (16.36%). For example, those who engage in the informal economy in Nigeria complain of paying multiple daily levies, taxes, and ticket fees in order for them to operate, and anytime they skip a particular fee or levy, they are prevented from carrying out their business activities by their supervisory-government officials. Again, it can be argued that these results contrast with the existing literature which suggests that people engage in the informal economy because they want to avoid taxes (see Chapters 3; Tanzi, 1983; Tunyan, 2005; Dell’Anno and Halicioglu, 2010).

Figure 8.1: Challenges faced by the informal economy



Growth, & general contribution (see Table 8.2, Columns C, D & E): It can be seen from Column C that well over two-thirds (73%) of respondents agree with the statement that informal economic activities are good for the Nigerian economy. This is corroborated by the overwhelming majority (79.3%, Column E) who disagree with the statement that the informal economy should be discouraged because it is harmful to the Nigerian economy. Similarly, more than half of respondents (57.4%, Column D) disagree with the statement that the Nigerian government does not have sufficient revenue because

informal workers do not pay tax. Again, these results tend to accentuate the importance of the activities of the informal economy to the Nigerian economy.

Additionally, when asked to list two important contributions of the informal economy to the Nigerian economy, participants gave many interesting economic and social impacts of the latter, as depicted in Table 8.2b. For example, Table 8.2b shows that the provision of relatively cheap goods and services to the general public, promotion of economic self-reliance and domestic production, skills acquisition and entrepreneurial development are some of the ways the informal economy contributes to the Nigerian economy. Almost half (49.5%) of respondents believed that the contribution of the informal sector to the Nigerian economy comes from employment creation (Table 8.2b). Also, income generation and poverty reduction are other important ways the informal sector contributes to the Nigerian economy. These points will be discussed in detail in Section 8.2, using responses to a different set of questions. Also, they are analysed later in order that responses from those who actually operate in the informal economy can be incorporated. This, I believe, will add credibility and reliability to the discussions.

Table 8.2b: Ranks of informal sector contribution to Nigeria

	Rank 1 (%)	Rank 2 (%)
Employment/self-employment	49.5	16.1
income for economy (GDP, tax revenue)	20.2	32.9
income to individuals/higher living standard	5.3	8.7
cheaper goods, services closer to consumers	9.6	17.4
promotes domestic production, reliance	4.3	5.0
takes people out of crime, enhance security	1.0	6.8
reduces poverty	5.8	7.5
skills acquisition/entrepreneurial dev	2.4	3.1
Others (e.g., assist people in need & youth)	1.9	2.5
Total	100.0	100.0
Total responses	208	161

I have analysed respondents' perception on the size and role of the Nigerian informal economy in this section. These responses show that the informal economy in Nigeria is large, and essential to the economy, participants and members of the public in many ways. Particularly, the responses indicate that the Nigerian informal economy provides employment, reduces poverty, generates income for participants and the government, and provides cheap and easily accessible goods and services to members of the public. Going by these, and the results reported in Chapter 7, I believe that the need for an in-depth study of the sector and its participants cannot be overemphasised.

8.2 Participants in the Nigerian informal economy

The Nigerian informal economy database (NIED) has been created in Chapter 6, particularly, in Section 6.4.3. The criteria used and justification for creating NIED are also set out in that section. Also, I have accentuated in Section 8.1, the importance of the data which emerged from the foregoing process. Notably, I made it clear that close to two-thirds (65.4%) of those who returned the questionnaire are participants in the informal economy in Nigeria. Additionally, I demonstrated in Chapter 6 (Section 6.4.4) that the criteria used in defining NIED produced a 2.2% error margin of omission. Specifically, rather than including erroneously, respondents who do not participate in the informal economy to the dataset, the criteria employed, excluded 2.2% of those who engage in the informal economy from the NIED (judging by FIWON members' participation-rate check). This gives me high confidence that my novel approach has generated credible data to underpin subsequent analysis in this chapter.

8.2.1 Characteristics of participants in the Nigerian informal economy.

8.2.1.1 Socio-Demographic: Sex, Age and Marital Status

The marital status, age and sex of respondents are shown in Table 8.3. It is clear from the table that over two-thirds of participants are married (74.2%), male (68.7%), and Christians (86%). With an estimated 62.7% married (see Appendix A8) and 51% male in the Nigerian population (NPC, 2006), participants' marital status in my sample depicts a closer proximity to the true population than participants' sex. These statistics suggest higher than average participation rates for male and married Nigerians in the informal economy. Note that no data were reported for religion in the 2006 population census.

Table 8.3: Marital Status, Sex and Religion

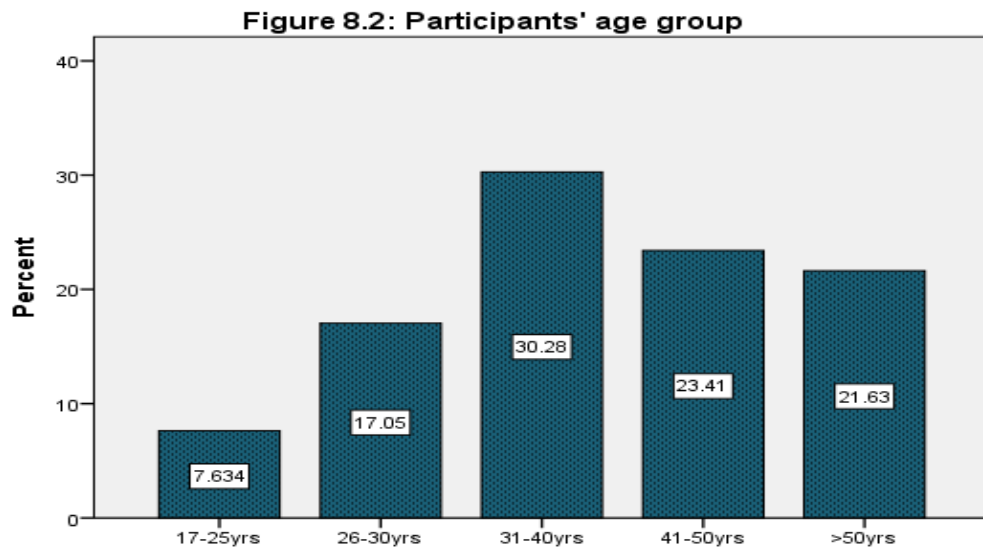
Marital status	Freq.	%	Valid %	Sex	Valid %	Religion	Valid %
Married	311	74.2	74.4	Male	68.7	Christian	85.9
Separated/divorced	1	.2	.2	Female	31.3	Moslem	14.1
Widowed	9	2.1	2.2	Total	100	Total	100
Not married	97	23.2	23.2				
Total responses	418	99.8	100.0	Responses	418	Responses	418

For their part, Table 8.4 and Figure 8.2, respectively, depict the age statistics and age group of participants. It can be seen that the largest number of responses are from those in the 31-40 years age group, and the mean and standard deviation ages are 40 and 11 years respectively. The low standard deviation from the mean age is indicative of

an evenly distributed sample. In comparison, the 2006 census figures show that Nigeria has a young population, with those in the 0-19 age bracket constituting 52.44% of the total population (140.43m). Grouped in a 10-yearly interval, the ratio of age groups to total population in Nigeria, declines from the youngest to the eldest, with the 30-39 age group constituting 11.96% of the total population (calculations from NPC, 2006 figures).

Table 8.4: Age Statistics.

N	Valid	393
	Missing	26
Mean		40
Median		40
Std. Deviation		11

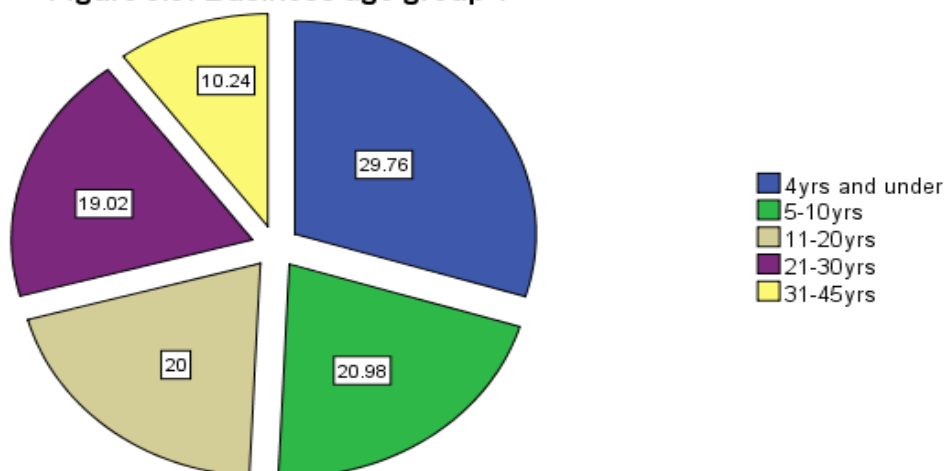


Also, Figures 8.3 and 8.4 display information about the age of the business enterprises. It can be seen from Figure 8.3 that close to a third (29.76%) of the business start-ups are four years old or under. The four years and under business start-ups' concept argues that 'an entrepreneur' is someone who starts or manages a less than four years old business (see Igudia *et al.*, 2014; Harding *et al.*, 2006; Reynolds *et al.*, 2002). Going by this definition, results suggest that a good number of entrepreneurs exist in the informal economy in Nigeria. Also, Figure 8.4 clearly shows that businesses established in the past five years have the highest proportion (36.56%) for businesses operating in the informal economy in Nigeria. The last five years, as defined, is the period 2008-2012, and it represents the year the recent global economic crisis started having effect on Nigeria's economy (2008) and the beginning-year for data collection for this study (2012); data collected in 2013 were adjusted to the 2012 date, in order to have uniform

time-scale of analysis. Next in size to the periods of recent global economic crisis is the proportion of business start-ups during the SAP era (19.35%) as shown in Figure 8.4. Again, the SAP era represents another period of economic crisis in Nigeria. These results tend to suggest that economic crisis has strong influence over the size of the informal economy in Nigeria.

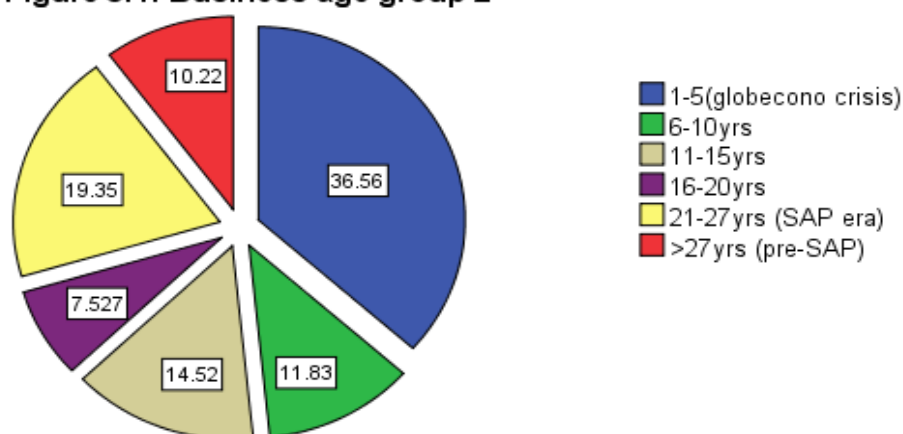
My argument can possibly be critiqued on the ground that the proportion of businesses established in the last five years may decline to the pre-crisis (e.g., 6-10 or 11-15 years) level, once an adjustment is made for the age and survival of these businesses. However, the proportion of businesses that have survived from those established during the SAP era (21-27 years ago), relative to those that have survived pre- or post-SAP era (see Figure 8.4), provides a strong enough ground to refute such critique. Hence, my assertion that the SAP era and recent global economic crisis induced a proliferation of business start-ups in the Nigerian informal economy, is seen to be valid. Additionally, the proprietors of these businesses have been found to be demonstrating entrepreneurial qualities. For example, they start up these businesses, nurture them, take daily decisions and risk that impact the growth (see the definition of an entrepreneur as given by: Casson, 2003; Stevenson *et al.*, 1990) and profitability (see Table 8.20) of the business enterprises (also see Igudia *et al.*, 2014). Again, this underpins my argument that the proprietors of these informal enterprises are entrepreneurs. Thus, while these results appear to support the argument that the informal economy grows during periods of economic crisis, it also asserts that the individuals, who supposedly are pushed into the informal economy by crisis in the economy, are found to possess some entrepreneurial attributes, which they possibly develop on their jobs or businesses over time.

Figure 8.3: Business age group 1



However, it has been suggested that the SAP was a huge failure in Nigeria, and the Nigerian economy is yet to recover from the negative effects of the policies implemented under it (see Kaigama 2014; Anyanwu, 1992). I investigate this assertion by looking at the number of business start-ups post-SAP. (Post-SAP era business start-ups consist of all businesses which are under 21 years). This turns out to be an overwhelming majority (70.42%) of all business start-ups in Nigeria (see **Figure 8.4**). The result tends to reinforce the argument that the SAP induced significantly an expansion in the size of the Nigerian informal economy.

Figure 8.4: Business age group 2



8.2.2 Education

Table 8.5: Age stopped formal education statistics

N	Valid responses	371
	Missing	48
Mean		39.2
Median		28
Std. Deviation		27.895

Table 8.5 depicts statistics for the age participants left formal schooling, and Table 8.6 shows participants' level of education and the age they stopped formal education. Interestingly, Table 8.6 shows that, in contrast to the dominant traditional theory, highly-educated people also participate in the informal economy in Nigeria. Particularly, about half (49.2%) of participants have at least a first degree. Conversely, the proportion of participants without formal education is 3.6%. This result tends to be consistent with the age participants left formal schooling, as the highest proportion of participants (32.4%) are in the 17-25 age group, which represents the average age for studying for a first degree in Nigeria. The second highest proportion of participants in the age at which participants stopped formal education category is the over 40 years age

group, and the least is the under 16 years age group (10.4%). While the former suggests that participants study for higher degrees by schooling till they are forty years and over, the latter represents those who have the least qualification and those who did not attend a formal school at all. Similarly, the mean, median and standard deviation ages for leaving school are respectively 39, 28 and 28 ages (Table 8.23); hence, it confirms the argument that many participants are highly educated.

Table 8.6: Level of education & age stopped schooling

Level of education	%	Age stopped schooling	%
at least graduate	49.2	0-16(secondary/primary/uneducated)	10.4
higher education but < degree	24.1	17-25yrs (university school age)	32.4
primary/secondary equivalent	23.2	26-30yrs (should be a grad)	18.8
No formal education	3.6	31-40yrs (should be working)	14.6
Total	100	>40yrs (should be established)	23.8
		Total	100.
Total responses	419	Total responses	383

8.2.3 Income, Employment, Unions and Benefits

Income: Figure 8.5 and Table 8.7 show the respective income groups and statistics of participants in the Nigerian informal economy. It can be seen from the figure that just above a quarter (27.92%) of participants earns the official minimum wage or below. However, closely following is the proportion of participants who earn wages that are at least double the minimum wage, which is 18, 000.00 Nigerian naira (NGN). Particularly, 20.05% and 18.36% of participants earn wages which, respectively, are double and quadruple the minimum wage. In corroboration, Table 8.7 shows that the mean and median income, respectively, are 126,675.00 NGN and 50,000.00 NGN, but the standard deviation of about 280,000.00 NGN calls for concern, as it shows wide variation from the mean. These results tend to support the contemporary view of participants in the informal economy, as a complex and heterogeneous group. While 27.9% of participants earn low wages/income as argued by the dualistic and marginality theory, others earn high wages/income from the sector as argued by the realist theory. Also, it can be inferred from Figure 8.5 that the informal economy in Nigeria provides the platform for about 72% of participants to earn wages which are higher than the minimum wage. By so doing, the Nigerian informal economy enables the majority of participants to overcome poverty. This strengthens my argument that the Nigerian informal economy is essential.

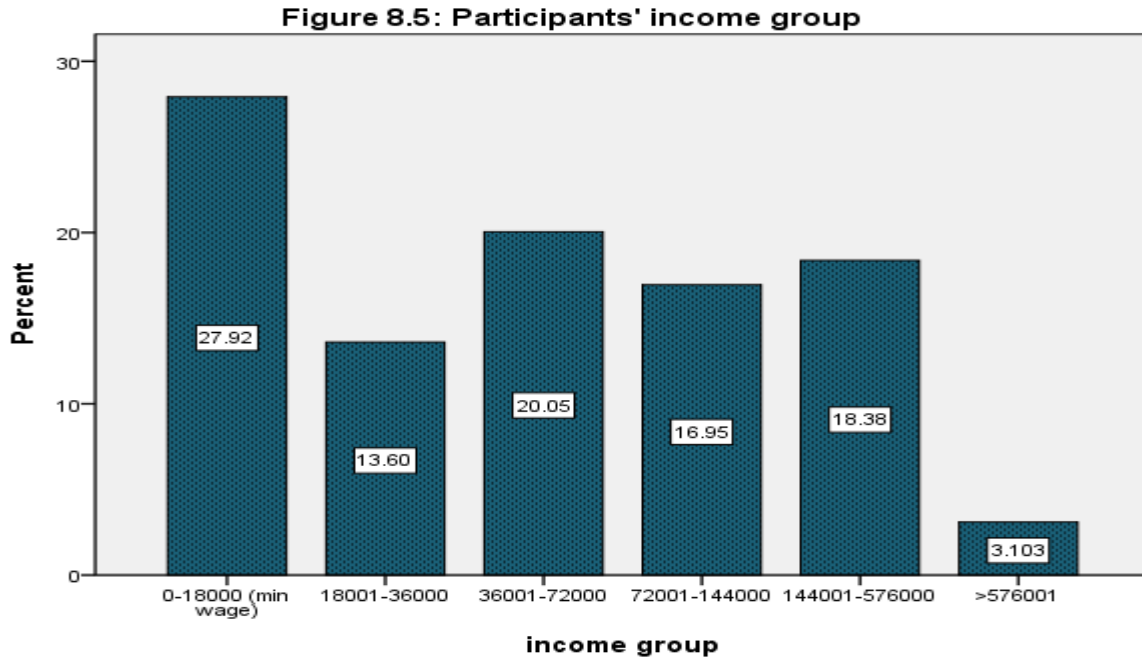


Table 8.7: Monthly income's Statistics.

Statistics	naira income
Mean	126674.88
Std. Dev.	279847.81
Range	3200000
Median	50000
Total	100
Total responses	419

Also, when asked to rate their level of income and standard of living (see Figure 8.6), over half (57.9%) of participants rate themselves as middle income earners. This rises to 62.6% when participants who claim they are high income earners are added to the latter. Additionally, Table 8.8 shows the frequency at which participants receive salary or remittances from abroad. It can be seen that an overwhelming majority (76.6%) of respondents have never received money from relations abroad. Next to that is a tenth (10.8%) of respondents who benefits from bi-annual remittances. For its part, nearly half of the respondents (49.4%) receive monthly wages, salary, income, or profit. As key characteristics of the informal economy, 20.7% and 20.2% of participants, respectively, earn wages on a daily basis and anytime a job or business activity is carried out. Finally, Table 8.9 depicts the proportion of respondents' income earned from their main employment. It can be seen that with the exception of a third (35.9%) who earn all, and the 5.9% who earn nothing, respondents do not earn 'all income' from main employment. Going by these results, it is safe to conclude that majority of individuals, who engage in the informal economy in Nigeria, concurrently maintain a second job or business activity.

Table 8.8: Frequency of job/business wages, and remittances from abroad.

How often do you receive?	A	B	C	D	E	F	G	H	I	J
Remittances from abroad	76.6		1.8	1.3	2.4	3.1	10.8	3.9		381
Wages/salaries/profit/income		20.7	5.4	1.0	49.4	1.0	0.2		20.2	411

Where: A=Never; B=Daily; C=Weekly; D=Twice a month; E=Monthly; F=Quarterly; G=Twice a year; H=Once a year or irregular; I=Anytime activity/job done; J=Total responses.

Figure 8.6: Participants' level of income

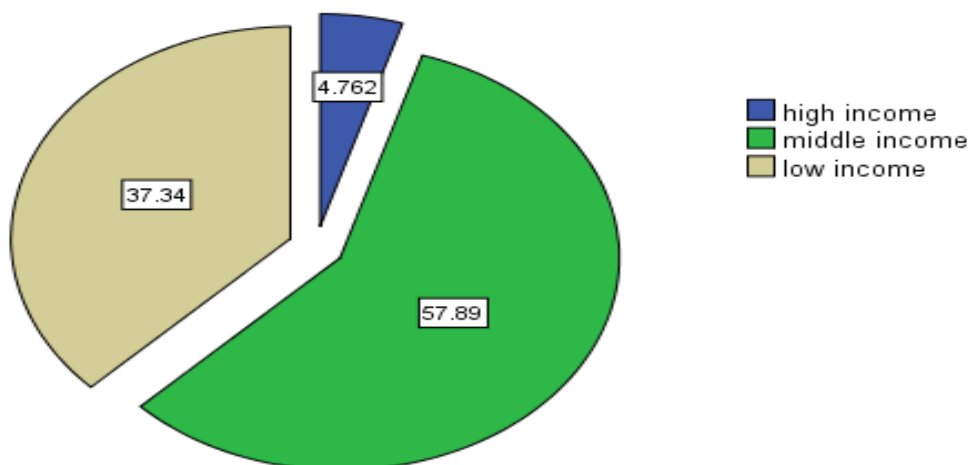


Table 8.9: Proportion of income earned from main employment/business.

Proportion of income:	All	>Half	Half	<Half	None	Total	Total V. Freq.
Valid percentage (%)	35.9	32.3	12.9	12.9	5.9	100.0	387

Employment: Participants' main and second (where applicable) jobs are depicted in Table 8.10. As expected, trade is the most popular in both cases; main (31%) and second (30.1%). Next to trade is the garage or kiosk type of employment for the main, and consulting or out-of-office-hours professional practice for a second, job. The latter also rank as the third most popular main-job for participants. I reconstructed the responses to the questions on the type of jobs undertaken by respondents in order to capture information about participants' employers. The results are depicted in Table 8.10b. It can be seen that self-employed/small enterprises is the highest in both cases, as its share of main and second employment is, respectively, 46.8% and 51.4%. This is corroborated by Figure 8.7, which shows that jobs/businesses in the Nigerian informal economy are dominated by family ownership, sole proprietorship, or self-employed. This plausibly explains why trade is the most popular activity undertaken and wages are earned daily or anytime a job/business activity is carried out by these participants. Also, it can be seen from Table 10b that a relatively high proportion of students, job applicants or apprentices (8.1% for main and 10.2% for second, jobs) operate in the Nigerian informal economy. This possibly provides further explanation for the type of jobs that

dominate the latter. For example, while waiting to secure full-time employment, job-applicants in Nigeria often engage in the buying and selling of goods and services in the informal economy. Particularly, while in the field collecting data, I came across respondents who told me that they were in the informal economy because they have not been able to secure a formal job.

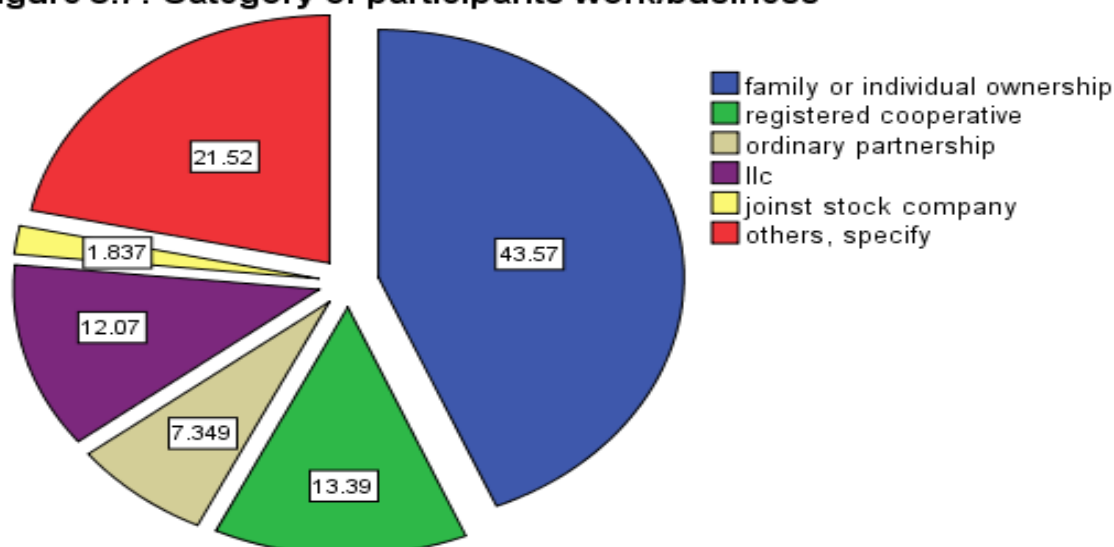
Table 8.10: main & second jobs engaged in by participants

Type of job/business engaged in:	Main (%)	Second (%)
Trade	31	30.1
workshop, garage, shop, restaurant, services, tech./mechanic	22.0	5.8
Professional/consulting, nursing, doctor	15.3	12.8
others specify	7.1	10.2
students, apprentice	5.1	2.7
supervisory, managerial, event management, interior decorator	3.9	0.9
tailoring, fashion, beautician	3.5	2.2
production and construction	2.7	3.5
commercial, restaurant services	2.0	1.3
estate management, agent	2.0	3.5
transportation, driving	2.0	2.7
factory, plantation or farming	1.6	11.9
domestic producer	1.2	
job applicant, searcher, nysc members	0.8	
private hospital, school, company		6.2
teaching, lecturing		4.0
public service		2.2
banking and insurance		
Total	100	100
Total responses	255	226

Table 8.10b: main and second job reconstructed.

Jobs/business engaged in:	Main	Second
None		20.4
Self-employed/small enterprises	46.8	51.4
Government employee	40.4	15.1
Student/applicant/apprentice	8.1	10.2
Corporation/company employee	4.7	2.8
Total	100	100
Total responses	408	284

Figure 8.7: Category of participants work/business



Again, it can be seen from Table 8.10b that the second most popular job informal participants do is government-related employment, especially for main jobs where over a third (40.4%) of participants are government employees. While this confirms my earlier assertion that many government (or corporation/company) employees operate in the informal economy as a second job/business activity, it also suggests that these employees undertake such a second activity in the informal economy for other reasons, rather than securing formal employment. Table 8.11 provides a summary of the reasons for taking-up a second job or business activity. Clearly, respondents undertake secondary employment for income related reasons; while some want to augment their main income or salary, others want extra income in order to have financial freedom.

Table 8.11: Respondents' reasons for having a second job

Why do you have a second job?	%
None	37.2
income(extra, more, augment, meet needs, freedom)	41.7
survival(make a living, sustenance, support family)	5.7
self-reliance, entrepreneur, investment, interest, multiple source of income, business)	6.5
planning for retirement	1.2
related jobs, situation (opportunist)	2.4
others(keep fit, hobby, religious activities)	5.3
Total	100
Total responses	247

Employment conditions and locations, & Union membership and assist: Tables 8.12, 8.13, and 8.14 respectively show respondents' working conditions, type and number of locations and union assist. Although, as discussed in the last paragraph, a large number of respondents combine government/corporate employment with their jobs/businesses in

the informal economy, many participants do not have good working conditions. Specifically, about 33%, 35%, 36% and 42% of participants in the Nigerian informal economy, respectively, do not have a written contract or agreement, pension contributions, sick-leave and annual leave (see Table 8.12). Also from the table, it can be inferred that well over half of informal participants in Nigeria do not have job security, as they can be dismissed from their employment without any advance notice (81.9%) or compensation (56.4%).

Table 8.12: Respondents' working conditions

Proportion of respondents who answered yes to the following questions (%)	%	Resp.
Are you employed on the basis of a written contract or agreement?	67.2	192
Does your employer pay contributions to the pension funds for you?	65.3	193
Do you benefit from paid annual leave or from compensation instead of it?	58	188
In case of incapacity to work due to health reasons, would you benefit from paid or sick leave?	63.7	193
In case of birth of a child, would you be given the opportunity to benefit from maternity leave?	71.6	169
Unless it is a fault of yours, could you be dismissed by your employer without advance notice?	18.1	193
In case of dismissal, would you receive the benefits and compensation specified in the labour legislation?	43.6	188
Do you work or run business full time?	81.4	415
Is job or business seasonal	22.9	400
Are you a member of a union or professional body	61	408

Additionally, Table 8.13 shows that about half of respondents, 48.3% and 51.2%, respectively, have their workshop, shop or kiosk, and operate only one location. However, it is worth recognising that there are participants in the Nigerian informal economy who operate in their employer's home (17.4%), on the street (3.3%), or no fixed location (9.1%). Similarly, there are some participants who used multiple locations within their state (9.0%) or nation (6.3%). This again supports the argument that the informal economy is heterogeneous.

Table 8.13: Type & Number of locations respondents carry out their work or business

Type	%	Number	%
employer home (no location)	5.7	1	51.2
employer home (particular location)	11.7	2	20.4
factory, office, workshop, shop, kiosk	48.3	3	7.8
client home, workplace	6.2	4	3.3
construction site	3.9	5	1.2
market, bazaar stall	3.9	7	0.3
street stall	2.3	8	0.3
footpath, street corner	1.0	40	0.3
no fixed location	9.1	A	9.0
mobile car, bus 1	.3	B	6.3
farm, agricultural plot	1.3		
colleague home	0.8		
own home	4.4		

Total	100		100.
Total valid responses	385		334

Finally, around four-fifths (81.4%) and one-fifth (22.9%) of participants in the Nigerian informal economy, respectively, work or run a business on full-time and seasonal basis (see Table 8.12). Also, 61% of participants are members of a trade union or professional body (Table 8.12), and being a member of a trade union appears to be of great value to individuals who engage in the informal economy. Specifically, technical training (26.7%), professional advancement (19.8%), and access to loan (11.8%) are some of the support unions or professional bodies give to their members (see Table 8.14).

Table 8.14: union assist

for which of these does your union	%
technical training	26.7
organisational and financial man training	8.6
access to loan	11.8
access to market information	6.4
supplies assistance	2.3
access to modern machines	4.1
access to large biz orders	3.8
linkages with government	6.4
security problems	2.6
interactions with employees	7.5
professional advancement	19.8
Total	100
Total responses	266

8.2.4 Economic Position/Social Class

The economic role of the informal economy in reducing poverty, generating income, and providing cheap and easily accessible goods and services to members of the public has been shown in Section 8.1. Also highlighted is the number of people who undertake activities in the informal economy, at both state and national level. Taking the discussion further, this sub-section looks at other characteristics relating to the economic position and social class of participants in the informal economy in Nigeria. To begin, I present, in Table 8.15, the number of people who live in the same household with, and depend on, participants. It can be seen that well over half (57.5%) of participants in the Nigerian informal economy have at least six people living in the same household with them, and a greater proportion (63.2%) of participants has at least six people who depend on them.

Table 8.15: Number of people in participants' household, & number of dependents on participants

Number of people:	1	2	3	4	5	6	7	>7	Total responses
in participants' household (%)	2.9	6.6	10	10.2	12.7	16.1	14.4	27.0	410
dependent on participants (%)	5.2	7.2	11.5	10.1	12.1	10.7	7.8	44.7	347

Table 8.16: Responses for various indicators

	C	H	I
Strongly Agreed	17.9	12.7	20.4
Agreed	16.4	31.3	32.7
Neither	9.5	23.9	16.3
Disagreed	32.2	26.8	18.6
Strongly Disagreed	24.0	5.3	12.0
Total	100	100	100
Total responses	391	377	392

C - If government can provide job for every Nigerian, nobody would participate in informal activities; H - Government regulation of businesses is too much; I - It is very difficult to do business in the informal sector without giving bribes to some-law enforcement agents.

8.2.4.1 Informality by Choice (C): Table 8.16, Column C, shows that 56.2% of informal participants disagree with the statement that people will not participate in the informal economy if the Nigerian government is able to provide employment for all Nigerians. This result suggests that not all participants engage in the informal economy because there are no alternatives. In fact, they participate in the sector by choice. This reinforces my earlier assertion that many entrepreneurs, who engage in the sector for reasons other than securing a formal job, exist in the Nigerian informal economy.

8.2.4.2 Government regulations of businesses (H): There tends to be a lack of consensus on participants' responses to the question on government's regulation of businesses (Column H, Table 8.16). Although the single highest proportion (31.3%) of participants and the combined responses for agreed and strongly agreed (44%) tend to agree, the second largest proportion (26.8%) of participants disagrees (Table 8.16), with the statement that government overregulates businesses in Nigeria. Again, the third highest proportion (23.9%) of participants is indifferent. The reason for the varied responses possibly depends on how participants viewed this question. Two views are explicable: regulation in terms of government control over the number of people moving in and out of the sector, and/or regulation in terms of what some participants have termed, 'disturbance of, and too-much charges on' informal participants.

Going by the first view, businesses in the informal economy cannot be said to be overregulated, as there is free entry and exit into the sector. As will be shown shortly, too much competition is one of the biggest problems confronting participants in the informal economy in Nigeria. If there were overregulation of businesses, the number of people entering into the informal economy would be lower, so would be strict control over what participants sell. For its part, the second scenario is valid if government's multiple taxes and levies on participants in the informal economy are considered. In this sense, there is government overregulation of informal enterprises.

8.2.4.3 *Bribe/corruption (I)*: Table 8.16 (Column I) shows that 52.6% of informal participants agreed with the statement that, it is very difficult to do business in the informal economy without giving bribes to some law enforcement agencies. Also, Figure 8.8 depicts the major government agencies and unions which regulate (but in the context of participants, disrupt) work/business activities in the Nigerian informal economy. With the exception of same union, which is only 8.6%, the greatest challenge of participants in the Nigerian informal economy relates to the various government agencies (see Figure 8.8). Specifically, most of these government agents/agencies collect multiple levies from informal participants, yet, the former do not allow the latter to carry out their businesses without harassment (see Tables 8.26 & 8.27). The only exceptions are when participants in the informal economy comply with the rent seeking overtures of these government agents/agencies. This is confirmed by Table 8.17 which shows the statistics for the average monthly bribe pay-out by participants in the Nigerian informal economy. It is clear from the table that each participant gives out 3685NGN (about £30.00) in bribes, on a monthly average. Also, it can be inferred from the table that the upper figures of the monthly bribe pay-out is high, given a range of 50,000NGN (£200.00) and standard deviation of 6994NGN (about £60.00).

Figure 8.8: Regulating agency/union

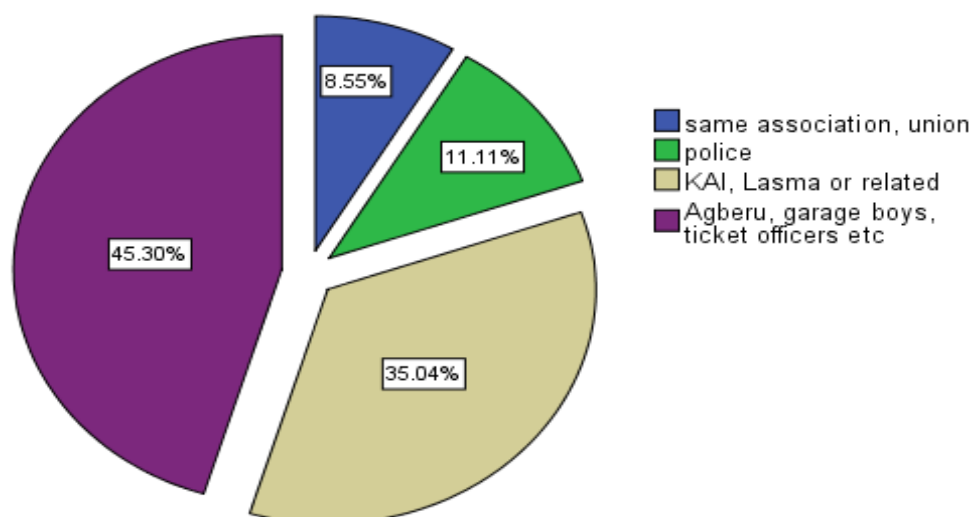


Table 8.17: statistics for monthly amount paid out as bribe

Mean	3685 NGN
Median	1300 NGN
Std. Deviation	6994 NGN
Range	50000 NGN
Total valid responses	138

8.2.5 Characteristics of the informal enterprise.

8.2.5.1 Business Registration: Table 8.18 shows the legal status of enterprises in the Nigerian informal economy. Relatively, the highest proportion (46.6%) of participants has registered with the corporate affairs commission (CAC). Also, 17.8%, 14.4%, and 1.7% of participants in the informal economy, respectively, have registered with the local government, professional group, and social security agencies. Conversely, it is only 0.6% of participants that have not registered their business enterprises. These results suggest that the formal registration of an enterprise does not necessarily stop its owners from operating in the informal economy in Nigeria. This tends to confirm the literature, which notes that formal firms sometimes informalise (i.e., start to operate fully in the informal, rather than the formal economy), carry out some of their activities in the informal economy, or contract out some of their productive operations to informal firms, as explained in Chapter 3.

Table 8.18: status of business registration

Is your business registered with any of the following?	%
CAC	46.6
tax agency	10.3
local government	17.8
professional group	14.4
other registration established by national legislative body	8.6
Social sec agency	1.7
None	0.6
Total	100
Total responses	174

8.2.5.2 Source of capital, and regular source of finance: Access to finance can determine the size and success of an enterprise. The source of capital and regular sources of financing for informal enterprises are reported in Tables 8.19. As expected, personal savings feature predominantly, both as a source of capital (68.7% and 56% in the first and second rankings respectively) and a regular source of funding (81.9% in the first ranking) informal enterprises in Nigeria. The second and third most important sources of capital and financing are, respectively, assistance from parents, friends, and relations, and credit from friends and relations. Participants also sometimes receive credit from buyers, creditors, and their daily-contribution or cooperative group. These results tend to suggest that informal enterprises find it difficult to attract financing from the bank, as only a meagre 3.9% of participants got their initial capital from the bank, and none of the participants has used bank facility for regular financing. The reasons for this can possibly be inferred from the results presented in Tables 8.20 to 8.24.

Table 8.19: Source of capital, and regular source of finance

Ranks of source of capital and regular source of finance (%)					
	Capital source		Regular source of financing		
	1 st	2 nd	1 st	2 nd	3 rd
Personal savings	68.7	56	81.9	20.9	
Parents, friends, relations assist	18	4	3.1	29.1	8.3
Set-up by master	3.9				
Credit from relations, friends, neighbour	3.0	16	1.8		54.2
Bank loan	3.9	8			
Others	2.6				
Respondents school fees		4			
Salary		4			
Gratuity		8			
Employer, landlord			1.8	4.7	
Private money lenders, pawnbrokers			1.3	2.3	4.2
Credit from suppliers			4.9	9.3	25
Credit from buyers			5.3	11.6	8.3
All				2.3	
NDE, SMEDEN				3.5	
Community banks				2.3	
Cooperatives, daily contribution				14.0	
Total	100	100	100	100	100
Responses of responses	233	25	226	86	24

Table 8.20: Banking & financing conditions for respondents

Proportion of respondents who answered yes to the following questions	%	Frequency
Do you have a bank account in the name of your business?	45	238
Have you ever applied for credit facility/loan from a bank for your biz?	23	239
Was your loan request from bank granted?	24.4	168
Other than bank services, do you know of any microfinance services?	61.6	219
Have you applied for loan from the microfinance sources?	21.9	178
Was your loan request from microfinance institution granted?	27.4	113
Do you think your business enterprise is profitable?	92.8	223

Specifically, it can be seen from Table 8.20 that only 23% of participants have applied for a bank loan, out of which a similar proportion (24.4%) was successful. This implies that an overwhelming majority (75.6%) of participants had their loan request rejected by the bank. Table 8.21 depicts the reasons why the latter were unsuccessful. Particularly, 52.8%, 19.4%, and 12.5% of participants, respectively, had their bank loan request rejected because of insufficient guarantee/inadequate collateral, insufficient initial capital outlay, and the bank's claim that participants' business activities or entire enterprises were unviable. These are unsurprising as most participants in the informal economy cannot meet these criteria. For example, Table 8.22 shows that an overwhelming proportion (80.9%; 22.6% no record plus 58.1% informal records) of informal enterprises' proprietors do not keep adequate records to show the viability or otherwise of their businesses. This is made worse by the Nigerian banks' lack of patience to keep a close tab on the operations of these enterprises in order to determine their viability.

Table 8.21: reason participants loan request was rejected

If you did not get loan from bank, what was the reason your loan request was rejected?	%
incomplete documents	6.9
complete but not convincing documents	8.3
insufficient guarantee, collateral	52.8
insufficient initial capital	19.4
activity, enterprise deemed unviable	12.5
Others	
Total	100.0
Total responses	72

Table 8.22: bookkeeping type

What type of bookkeeping and account do you maintain?	%
no written records	22.6
informal records for personal use (receipts, cash book)	58.1
simple records for tax payment	6.5
detailed formal records	12.9
Total	100.
Total responses	217

Additionally, over three-quarters (77%) of participants have not applied for a bank loan. Table 8.23 depicts the reasons given for this. It is clear from the table that 31.6% and 29.9% of participants, respectively, have not requested a bank loan because loan procedures are complicated and bank interest rates are too high. According to the organised private sector of Nigeria, for example, the average savings and lending rates, respectively, are 3% and 22-35% (see Vanguard, 7 April, 2014). However, 21.8% of participants claim they did not need a bank loan. Enterprises that fall into the latter category are possibly owned by government/corporate employees, who run these enterprises to augment their income from formal employment. Thus, these participants do not require loans to expand, as their preference is to remain small and informal. Also, it is possible that some of the enterprises not seeking bank loans are able to generate sufficient profit from their activities in the informal economy (see Table 8.20), which in turn provides financing for the enterprises. For example, an overwhelming 92.8% of participants indicate that their enterprises are profitable, as shown in Table 8.20. Although some participants did not need a bank loan, Table 8.24 shows that credit facilities impact positively on informal firms. In particular, 53.8% of participants who secured a bank loan indicated that the facility stimulated output growth.

Table 8.23: reason participants did not apply for a bank loan

If you have not applied for a bank loan what is (are) your reason(s)?	%
amount of loan insufficient	1.7
procedures are too complicated	31.6
interest rates are too high	29.9
maturity period too short	3.4
guarantee, collateral asked for is too much	8.0
did not need it	21.8

i do not believe in paying interest	3.4
Total	100.0
Total responses	174

Table 8.24: impact and importance of bank loan

Ranks of the impact and importance of bank loan on respondents' business (%)		
	1 st	2 nd
Increased volume of production	53.8	14.3
Diversification of production	3.3	10.7
Increased sales	15.4	21.4
Improved competitiveness, & profitability	13.2	35.7
Recruitment of additional staff	1.1	7.1
Working less time	1.1	3.6
Utilisation of less staff	1.1	
Financial difficulties	11	7.1
Total	100	100
Total responses	91	28

8.2.5.3 Source of stock/raw materials, and customer-base: The aim of this sub-section is to explore the linkages between the formal and informal economy. Two concepts germane to the discussion here are: the 'where?' and 'to who?' of the goods and services traded by participants in the informal economy. While the 'where?' seeks answers to questions relating to the source(s) of informal enterprises' stock of goods and/or raw materials, 'to who?' seeks answers to questions relating to the individuals/markets that buy the goods and/or services provided by informal enterprises. Responses to the two questions are ranked in Table 8.25. It is clear from the table that informal firms and individuals rank first, both as a source of stock of goods/raw materials, and market for informal enterprises in Nigeria. However, ranking second (in the 1st column) are the formal firms/companies and friends/neighbours, respectively, for source of stock of goods/raw materials and customers for the informal enterprise. This pattern is repeated in the second ranking, except that the first and second positions are swapped for the economic agents, which use the output of informal enterprises in Nigeria.

Additionally, it is worth recognising from Table 8.25 that 35.1% (rising to 50.9% in the second ranking) of participants buy their stock of goods/raw materials from formal firms, companies or their representatives. Similarly, about 13.4% (rising to 25.9% in the second rankings) of participants sell their goods and services to formal firms, companies or their representatives. These results confirm findings in the literature (e.g., Arimah 2001), that both forward and backward linkages exist between the formal and informal economies in Nigeria, although the results clearly indicate a higher backward than forward linkage between the two economies.

Table 8.25: ranks of source of stock of goods/raw materials & customers/market

	Ranks of respondents source of:					
	Stocks/raw materials (%)			Customers/patronage (%)		
	1 st	2 nd	3 rd	1 st	2 nd	3 rd
Family members/relationship	7.6	2.0	10	16.3	11.1	11.8
Friends/neighbours	7.1	9.8	15	25.2	44.4	11.8
Informal firms/individuals	50.2	37.3	30	44.6	18.5	50.0
Formal firms/companies	21.8	33.3	30	9.4	18.5	8.8
Formal firms representatives	13.3	17.6	15	4.0	7.4	17.6
Total	100	100	100	100	100	100
Number of responses	211	51	20	202	54	34

8.2.5.4 *Impediments to informal enterprises operations*: some of the challenges confronting participants in the Nigerian informal economy have been discussed in sessions 8.2.4.3 and 8.2.5.2. Detailed versions of these factors are presented in Tables 8.26 and 8.27. When asked to write what the two biggest problems faced by informal enterprises were, 43.2% of participants listed inadequate finances/inaccessible loans and high lending rates. The second and third biggest problems, respectively, are unsupportive and irresponsible government (13.1%), and high risk, job insecurity or irregularity and poverty (9.3%) (see Table 8.26, Columns 1 & 2). The factors listed by participants are consistent with the rankings, using the optional factors provided for a similar question. These are presented in the last three columns of Table 8.26. For example, it can be seen that too much competition (24.2%), lack of customers (18%) and inaccessible loans (17.5%) are the respective first, second and third ranked challenges confronting participants.

Table 8.26: biggest problems & challenges of the informal economy

What do you know or think is the biggest problem faced by the informal sector?	%	Challenges confronting participants	1 st	2 nd
inadequate finance, high interests, inaccessible loans	43.2	Supply of raw materials	9.8	4.9
record keeping (poor, none), management capacity, skills gap	6	Access to land, space for business	6.2	13.4
job security, irregularity, high risk, poverty	9.3	Lack of adequate machines, equipment	4.1	18.3
government unsupportive & irresponsible	13.1	Difficult to get loan	17.5	7.3
excessive tax	6.0	Lack of customers	18	11
Corruption (employee, govt., its officials)	2.2	Too much competition	24.2	20.7
overregulation, unfriendly policies & environment,	2.2	Organisation, management difficulty	3.1	4.9
high competition, little revenue & patronage	9.8	Too much govt. control, taxes	8.2	7.3
Others (poor electricity, road, insecurity-inadequate infrastructure, mkt. access)	4.4	Too little revenue	8.8	9.8
		10		2.4
Total	100	Total	100	100
Total responses	183	Total responses	194	82

Additionally, Table 8.27 shows the role of the government or its agencies in creating impediments for businesses operating in the informal economy in Nigeria. A quarter (25.6%) of participants claim the government collects excessive taxes and multiple levies from them. Other participants claim they have been demoralised by the government's inability to provide encouragement/training (17.3%), financial support (15.4%), and electricity/infrastructure facilities (14.3%), as shown in Table 8.27.

Table 8.27: impediments to business activities/working in the informal economy

Things the government or her agencies do that inhibit businesses in the informal economy	1 st (%)	2 nd (%)
Unavailable credit, no financial support	15.4	13.9
High interest rates	0.6	3.3
Excessive taxes, multiple levies	25.6	18
Costly utilities, inadequate infrastructure, electric power failure, high cost of fuel	14.1	18
Harassments, extortions, corruption of government officials	7.1	16.4
Costly raw materials, ban on raw materials imports, high influx of imported goods	3.8	4.9
Bureaucracy, overregulation (e.g., business registration period is too long), inconsistent policies.	6.4	4.9
Insecurity and unfriendly business environment	3.8	5.7
No encouragement/training programs/education	17.3	8.2
Demolition of business/work place, no provision of land/biz space	5.8	6.6
Total	100	100
Total responses	156	122

8.3 Determinants of the Nigerian informal economy

The overarching goal of this section is to analyse the factors which influence the Nigerian informal economy. In Section 8.4, a MIMIC model is built to confirm if these factors are statistically significant.

8.3.1 Reasons for participating in the informal economy

I present in Table 8.28 participants' own rankings of their reasons for engaging in the informal economy. However, it has been noted in the literature that informal participants do not often give an accurate account of events which affect them (see Arimah, 2001). Hence, the reliability of responses/rankings provided on themselves are called into question. To clear doubts that can arise from the use of such data, I decided to ask the question in a different way. Specifically, presented in Table 8.29 are the responses to the question which asked the participants to rank why others (and not them) engage in the informal economy. Both responses shall be analysed in this section. However, only the responses in Table 8.29 are employed for the MIMIC analysis, as they arguably represent unbiased and more reliable responses. Table 8.29 also shows the relative ranks, proportion and frequency of each variable.

Table 8.28: Rankings of why respondent work/run business in the informal sector (%)

	1 st	2 nd	3 rd
No other job	28.8	1.0	1.3
Want own biz, autonomy	25.4	19.4	2.7
Difficult to register biz	0.8	1.9	2.7
Survival	16.9	27.2	14.7
Don't like paying tax	0.8	2.9	
Not costly: start/operate	5.1	12.6	14.7
Less regulations	0.8	4.9	6.7
Easy entrance	1.7	3.9	16.0
High profit	1.7	4.9	1.3
Extra income	12.7	13.9	8.0
Meet identified needs	2.5	7.8	30.7
Raise funds for business	0.8		
Skills acquisition	0.8		1.3
Seasonality	0.8		
Total	100	100	100
Number of responses	118	103	75

8.3.1.1 Unemployment & Survival: It can be seen from Table 8.28 that with just above a quarter (28.8%), unemployment ranks as the number one reason for undertaking an activity in the Nigerian informal economy. For its part, survival is ranked third (16.9%) and first (27.2%) in the first and second rankings respectively (see Table 8.28). In Table 8.29 (see last column) the two factors swapped positions, as survival (42.4%) and unemployment (24.7%), respectively, are ranked as the first and second reasons for taking up a job/business activity in the informal economy. These results confirm the strong influence of unemployment and survival over the size of the informal economy in Nigeria. Even, survival features prominently in the literature, as participants are believed to be operating in the informal economy due to the lack of alternative employment opportunities. For example, individuals need jobs to survive, except if they are dependent on other people. However, if formal jobs are not available, people create one for themselves by setting up their own business in the informal economy, and when they are unable to set up a business, they work for other participants in the informal economy.

8.3.1.2 Want own business/autonomy: Closely following unemployment is the desire to be self-employed which is the reason a quarter of participants undertake an activity in the Nigerian informal economy. Typically, individuals who go into the informal economy for this reason want their own businesses, as they hope to enjoy the flexibility, wealth and other benefits that go with being autonomous or an entrepreneur. Autonomy ranks behind unemployment and survival in the first (25.4%) and second (19.4%) rankings respectively (Table 8.28). Similarly, Table 8.29 (last column) shows that the desire for their own business also ranks third (13.9%) behind survival and unemployment.

8.3.1.3 *Others*: The need to have extra income, meet identified needs, and the low cost involved with the start-up and operation of an informal business, are the other major reasons participants engage in the Nigerian informal economy (see Table 8.28). Finally, participants are of the opinion that individuals are attracted to the informal economy because of the ease of entering, and higher profit earned from, the informal economy, and the difficulty associated with registering a formal enterprise (see Table 8.29).

Table 8.29: rank of participants' perception of why others engage in the informal economy

	Ranks of respondents perception of why people engage in the informal sector (%)										
	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	Freq.	No.1
No other job	53.9	15.6	7.1	5.0	2.1	3.5	2.8	2.1	7.8	141	24.7
Want own biz, autonomy	27.9	13.6	17.7	11.6	8.2	7.5	4.8	5.4	3.4	147	13.9
Difficult to register biz	5.5	8.3	3.7	4.6	7.3	21.1	19.3	15.6	14.7	109	2.7
Less tax	4.7	5.7	8.5	10.4	6.6	11.3	14.2	17.9	20.8	106	1.7
Survival	59.1	20.2	7.7	2.9	2.9	2.9	2.4	1.9		208	42.4
Not costly to start/operate	9.2	13.4	16.0	12.6	18.5	10.9	8.4	8.4	2.5	119	3.7
Less regulations	4.8	6.7	5.8	9.6	21.2	18.3	14.4	11.5	7.7	104	1.7
Easy entrance	13.3	12.5	23.4	19.5	10.9	4.7	4.7	4.7	6.3	128	5.8
More profitable	7.8	6.9	7.8	15.5	11.2	5.2	12.1	16.4	17.2	116	3.4
Total	100	100	100	100	100	100	100	100	100		100
Total valid freq.											295

8.3.2 Number of hours spent on main employment activity

The time spent on main employment by participants in the Nigerian informal economy is summarised in Table 8.30. Just above a quarter (27.4%) of participants spends 8 hours on their main job activity daily. While 8 hours is the official daily-working hour for most government employees, some work for 9 hours daily. Arguably, anytime beyond 9 hours spent on job related activities is spent in the informal economy. It is shown in Table 8.30 that 48.9% of participants belong to this group, as they work at least 10 hours daily. This arguably lends support to the contributing effects of the informal economy to the growth of the Nigerian economy.

Table 8.30: the number of hours spent on main job/business daily.

Average daily time (in hours) spent on main job/business?												
Hour	1-3	4-6	7	8	9	10	11	12	13-15	18-20	22-24	V. Freq.
%	3	11.2	7.6	27.4	12.9	17.4	4.1	10.9	3	1.5	1.2	340

Interestingly, some participants claim to be working 24 hours a day. Although this tends to be figurative, it suggests that these individuals work round the clock. This can be good for themselves and the economy, as it suggests that informal participants invest

huge time and resources in the economic activities they undertake in the informal economy. By so doing, these individuals are able to make significant contributions to productivity, and hence the growth of the Nigerian economy.

Additionally, Table 8.30 shows that 14.2% of participants work less than 6 hours a day. Arguably, individuals in this category possibly do a part-time job, and are likely to spend the rest of their time on activities in the informal economy. With a combined proportion of 63.1% (i.e., 48.9% for over 10 hours + 14.2% for under 6 hours), time spent on main job appears to be a key determinant of the Nigerian informal economy.

8.3.3 Participants' reasons for choosing their business activity

I rank in Table 8.31 the factors which influence participants' choices on the type of businesses they undertake. It is clear from the table that participants' profession and desire for higher or more stable income/higher profit, respectively, rank as first and second factors, which influence participants' decisions to choose their type of business. It is worth recognising that cultural and religious factors are important determinants of the type of businesses undertaken by participants. Although further research might be required to find out why religion is an important causal factor, I can argue that this is possibly related to the fact that trade is the dominant activity undertaken by participants, who often site their kiosks in the neighbourhood to meet the needs of the local people who might be of same religion as themselves. Finally, there are a few who start-up a business activity in the informal economy in order to be able to support their education.

Table 8.31: ranking the reasons for choosing a particular business activity

Ranks of why respondents chose their business activities (%)				
	1 st	2 nd	3 rd	4 th
Family tradition	7.7	4.8		
Profession known	49.1	36.1	19.6	10
Gives better income, higher profit	20.9	22.9	33.3	35
Gives more stable income	10.5	8.4	37.3	35
Religious reasons	2.7	4.8	5.9	15
Cultural reasons	3.6		2.0	5
Others	5.5			
Dignity		1.2		
Autonomy, flexibility		2.4		
Interest, passion, enjoy		8.4		
Support self-schooling		1.2		
Meet identified needs		1.2		
Location		1.2		
Supplement pension, survival, assist fin needs		7.2	2.0	
Total	100	100	100	100
Number of responses	220	83	51	20

8.3.4 Demographic factors

Such demographic factors as: religion, age, sex, marital status and level of education have been reported as determinants of the informal economy in the literature. The findings for this study are presented in Tables 8.31b and 8.31c. It is clear from the tables that all factors, except sex, are statistically significant. Thus, religion, age, marital status and level of education influence the size of the Nigerian informal economy. In particular, while there is no difference between the proportion of Christians who are self-employed (43.2%) and work for government establishment (43.5%) in Nigeria, it is not so with Muslims, as the highest proportion (69.6%) of respondents from the latter group operates as self-employed (see Table 8.31b). This suggests that more Muslims than Christians in Nigeria carry out their main businesses or job activities in the informal economy. However, it is worth noting that 79.6% of Christians in contrast to 20.4% of Muslims participated in this research. (A more balanced sample may be required to confirm my findings, but security challenges in parts of Nigeria with a higher share of Muslims in the total population, cost and time constraints made it impossible for me to collect samples that reflect the share between the Christian and Muslim religion across the country as a whole).

For its part, there is a slight difference between the married and unmarried groups' participation rate in the Nigerian informal economy, as 48.7% and 41.2%, respectively, of the former and latter operates in the informal economy (see Table 8.31b). The result suggests that more married than unmarried Nigerians operate in the informal economy, though the gap between the two is close. This is understandable considering that the last census figures (see NPC, 2006) show that 62.7% of the Nigerian population is married, and 60.65% of households have at least 6 people living in them, with 94.44% of the latter being dependants of the head of the household. Also, the age of participants tends to corroborate the marital status argument. Particularly, it is clear from Table 8.31c that relatively older Nigerians are more likely to engage in the informal economy, although the gap between the relatively older and younger participants' age group is very narrow.

The level of education appears to be a very strong determinant of the informal economy in Nigeria. Beyond the Cramer's V coefficient of 0.307 which suggests a relatively strong association, the result in Table 8.31c shows that people with less educational qualification are more likely to participate in the informal economy than their counterparts with higher qualifications. Particularly, while 75.5% of participants whose highest level of education is secondary school (this includes those without a formal

education and school drop-outs) operate in the Nigerian informal economy, the participation rate falls to 50% for those who have an educational qualification from higher institutions, but below a first degree. There is a further decline in the rate of participation in the informal economy, to 30%, for participants who hold a minimum of first degree qualification. (It is worth noting that 75.5%, 50% and 30%, respectively, are relative to the participants whose levels of education are secondary school and below, above secondary but less than university graduate, and at least a first degree qualification. However, the absolute figure shows that close to half (49.2%) of participants have at least a first degree (see Table 8.6)).

Table 8.31b: Participants' main job or business VS. sex, religion & marital status.

		Sex				Religion				Marital status			
		Male	Female	total	Freq.	Christian	Muslim	total	Freq.	married	Not marr.	total	Freq.
Self-employed	%within MAINJ	69.1	30.9	100	191	79.6	20.4	100	191	78	22	100	191
	%within variable	47	46.5			43.2	69.6			48.7	41.2		
Govt. employee	%within MAINJ	67.3	32.7	100	165	92.7	7.3	100	165	81.8	18.2	100	165
	%within variable	39.5	42.5			43.5	21.4			44.1	29.4		
Corporate employee/ students/applicant	%within MAINJ	73.1	26.9	100	52	90.4	9.6	100	52	42.3	57.7	100	52
	%within variable	13.5	11			13.4	8.9			7.2	29.4		
Total		68.9	31.1	100		86.3	13.7	100		75	25	100	
Total responses					408				408				408
Chi square	Phil (nom dich)	.039 (.73) - Not sig				.184*				.291*			
Kendal's tau-c		-.008(.876) - Not sig				-.121*				.138*			

Where: MAINJ = main job or business, * = significant at 1%, () = p-values

Table 8.31c: Participants' main job/business activity VS. level of education & age group.

		Level of education				Age group of participants (years)					
		≥bachelor	≥HI <bachelor	≤secondary	Total	17-25	26-30	31-40	41-50	>50	total
Self-employed	%within MAINJ	31.9	26.2	41.9	100	7	16.2	27	25.9	23.8	100
	%within variable	30.0	50.5	75.5		46.4	46.9	42.7	52.7	51.8	
Govt. employee	%within MAINJ	69.7	25.5	4.8	100	2.6	15.6	35.1	27.3	19.5	100
	%within variable	56.7	42.4	7.5		14.3	37.5	46.2	46.2	35.3	
Corporate employee/ students/applicant	%within MAINJ	51.9	13.5	34.6	100	23.9	21.7	28.3	2.2	23.9	100
	%within variable	13.3	7.1	17		39.3	15.6	11.1	1.1	12.9	
Total		49.8	24.3	26	100	7.3	16.6	30.4	23.6	22.1	100
Total responses					408						385
Chi square	Cramer's V	.307*				.216*					
Kendal's tau-c		-.257*				-.089 (.07)					
Spearman		-.303*									

Where: MAINJ = main job or business, * = significant at 1%, () = p-values, HI=higher institution

8.4: Modelling the determinants of the informal economy

The overarching aim of this sub-section is to utilise the MIMIC approach and the variables already discussed in Sections 8.2 & 8.3, and the existing theories of the informal economy, discussed in Chapter 2, to build a model of the determinants of the Nigerian informal economy. This will enable me to ascertain those determinants that are statistically significant in the case of the Nigerian informal economy. Finally, the results that will emerge from this section will help provide answers to research question 3.

As explained in Chapter 6, and applied in Chapter 7, the MIMIC technique is robust and has important criteria and diagnostics which are used to decide what variables are included in the (MIMIC) model. Specifically, in a MIMIC approach, the first task is to achieve a best-fit model, which, for its part, is built on the basis of existing theories. Thereafter, any variable in the chosen (best-fit) model which meets the MIMIC diagnostic criteria is considered important, hence, included in the final model. While existing theories are germane in building MIMIC models, arriving at the best-fit model requires different combinations of variables, and sometimes, trial and error (see Byrne, 2010). Following the practice in the literature (see Schneider *et al*, 2010; Byrne, 2010; Kumer and Esghi, 2013), I will combine different-relevant variables (see Section 8.4.1), chosen on the basis of existing theories of the informal economy and the results in Sections 8.2 & 8.3, in order to achieve a best-fit model. Further, I will check if the variables in the best-fit model meet the relevant diagnostic criteria: *NFI*, *CFI*, and the *RMSEA*. The variables which meet these criteria are accepted as important determinants of the informal economy in Nigeria.

Specifically, the MIMIC model is being employed here in a novel way to study the determinants of the informal economy using primary data, in contrast to previous studies (e.g., Savasan, 2003; Vuletin, 2008; Schneider *et al*, 2010), which have used the method to compute the size of the sector only. However, employing primary data to test a theory with the MIMIC method is not entirely new in the academic literature (see Byrne, 2010; Kumer and Esghi, 2013). For example, Kumer and Esghi (2013) employed both primary data and confirmatory factor analysis (CFA) to investigate whether quality relationship matter in service relationships. As explained in Section 6.5.2, CFA is the confirmatory part of a MIMIC/SEM technique. Additionally, employing primary data and the MIMIC technique, as proposed here, follows the same principle underpinning the computation of the size of the informal economy, using this method. In the latter case,

the focus is on how factors/causes relate to a construct (the informal economy), which is reflected in certain indicators. Similarly, in this section, what is proposed for study are: causes are the determinants of the informal economy; construct is the informal economy; and indicators are the effects of the informal economy's activities.

To reiterate, several factors have been identified in the literature as determinants of the informal economy, but not all are important in every economy. To identify/confirm the determinants specific to the Nigerian economy, collected-information from primary sources is employed. Such specific information, which explains participants' rationale for participating in the informal economy, cannot be generated from secondary data, used in computing the size of the Nigerian informal economy in Section 7.2, as they are based on universally-defined causes (or determinants). Following the practice in the literature (e.g., Kumer and Esghi, 2013), relevant determinants/variables were constructed from all participants' responses to questions designed to solicit such information. While all literature-defined determinants were included in the questionnaire, not all were identified as important by participants in my survey. Thus, through coding and recoding, the relevant variables are converted to scale variables, as explained below. This creates data that are both uniform-scaled, and useable for the MIMIC analysis in this section.

8.4.1 Representing the Variables

The variables to be used for the MIMIC model are represented and briefly discussed in the following sub-sections.

8.4.1.1 Causal factors:

Regulatory burden (REGB): The literature on the informal economy is very clear on the major role played by government regulatory burden in encouraging informal economic activities (see Chapter 3). Additionally, the effect of regulation on the Nigerian informal economy has been discussed in Section 8.2.4.2. The proxy for regulatory burden is participants' responses to the statement, 'government regulation of the informal economy is too much'. It is a five-scale response question. A positive sign is expected.

Unemployment (UNEMP): Unemployment was a key causal factor of the informal economy in early debates, particularly in the dualist theory (see Chapter 2). It appears to remain relevant in contemporary studies, as shown in the evidence in support of this factor in the current study, which has been discussed in Section 8.3.1.1. Similar to the data used for the analysis in session 8.3.1.1, the proxy for unemployment is the

participants' ranking of the reasons for engaging in the informal economy. However, unlike Section 8.3.1.1, the data for this section has been recoded into scale-data, ranging from 1 to 10, where each of 10, 9 ... 2 takes the place of 1st, 2nd... 9th ranks respectively (also see Table 8.29). Generally, scale data are more suitable for the type of analysis carried out in this section, especially as data for the other factors in the section are scale data. A positive relationship between the Nigerian informal economy and unemployment is hypothesised.

Autonomy/self-employment (AUTO): Analysis of individuals' desire to own their businesses or have working-flexibility and autonomy has recently emerged in the literature, as a factor which has led many to undertake business activities in the informal economy (see Chapter 2). Some evidence in support of this factor has been discussed in section 8.3.2. The data used as a proxy for autonomy were constructed in a similar process to that described for unemployment above (also see Table 8.29). A positive relationship between the informal economy and autonomy is hypothesised.

Corruption or Business freedom (BF): Business freedom measures the kind of environment participants operate in. The responses to the statement, 'it is very difficult to operate in the informal economy without giving bribes to some law enforcement agencies' was used as a proxy for this variable. Specifically, BF measures the level of corruption in the Nigerian informal economy. Corruption has been found to be one of the key determinants of informal economy (see Chapters 2-4). BF is derived from scale data with five points, ranging from strongly agreed to strongly disagreed, and a positive relationship is expected between this factor and the informal economy.

Tax burden (LTAX): One factor which has been investigated extensively in the informal economy literature, as a key determinant of the informal economy, is tax burden (see Chapter 3). Used in this section as a proxy for tax burden is 'less tax', which is one of the ranked-reasons for engaging in informal activity (see Table 8.29). The data computation is similar to the process for computing unemployment, described above. A positive relationship is hypothesised between LTAX and the informal economy.

Survival (SURV AND SURV2): The need to survive is another factor that is arguably responsible for a large informal economy (see Chapter 2). The evidence in support of this factor has been discussed in Section 8.3.1.1. Survival is represented in this section by responses to two different procedures. While SURV is from the ranked reasons for engaging in the informal economy (Table 8.29), SURV2 is from participants' responses to

the statement, 'if government can provide jobs for all Nigerians, nobody will operate in the informal economy'. The data for the former are constructed following the process as described for unemployment above, and SURV2 follows the process for computing BF. A positive relationship is hypothesised between survival and the informal economy.

More profitable (MPRF): Recent studies have shown that economic agents engage in the informal economy because of the relatively higher profit they expect to earn from it (see Chapter 3). It is one of the variables ranked in Table 8.29, and is constructed in a process similar to the one followed for unemployment. A positive relationship is hypothesised, as the higher the profit earned from operating in the sector, the more the number of people that are expected to enter the informal economy, *ceteris paribus*.

Income level (INCL): Similar to unemployment and need to survive, individuals' level of income can be a factor which makes them operate in the informal economy. Unlike the former, the focus of this factor is on participants who already have means of survival but due to their low level of income, engage in the informal economy in order to have extra income. For example, participants have listed such factors, as "extra income; support my family; and more income" (source: coined from participants' responses to question 52 of the research questionnaire, particularly, the option which asked respondents who chose 'others' option to 'please specify' them) as reasons for engaging in the informal economy. The proxy for income level is the participants' response to the question, 'what is your level of income?' It is a scale variable with three levels of measurement: low, middle, and high income. A negative relationship is hypothesised between income level and the informal economy.

Bureaucracy (DIFR): Bureaucracy is one of the factors identified by the dualists, as being responsible for the expansion of the informal economy (see Chapter 2). It is captured by the difficulty in registering a formal business. DIFR is ranked in Table 8.29 as one of the reasons for engaging in the informal economy in Nigeria. A positive sign is expected.

Time on main job (TOMJ): Time spent on main job can also be a factor which influences people's decisions to undertake a job or business activity in the informal economy (see Chapters 3 & 4). It appears to be a strong factor in the Nigerian informal economy (see Section 8.3.2). Data for TOMJ is from respondents' responses to the question, 'on a daily average, how many hours do you spend on main job/business?' A negative relationship between time spent on formal work and participation in the informal economy is hypothesised in the literature (see for example, Lemieux *et al.*, 1994; Sookram and

Watson, 2008). For this study, I hypothesise a positive relationship between TOMJ and the informal economy, although going by the proxy used for this variable, which is the time spent on main job (and not time spent on participants' formal job), two inferences are possible. On the one hand, if participants' main jobs are in the informal economy, then, a positive relationship between TOMJ and the informal economy will be expected (as hypothesised). On the other hand, if participants' main jobs are in the formal economy, a negative relationship between the two will ensue.

8.4.1.2 Indicators

The activities of the informal economy may not be captured officially, but they manifest themselves in a number of ways. These manifestations are otherwise known as indicators. As noted in Chapter 2, debates have continued in the literature about the positive or negative indicators of the informal economy. To unravel the relevant indicators for the Nigerian informal economy, participants were asked to rate some statements from strongly agreed to strongly disagreed, which were later computed into scale data. Specifically, data used as indicators include participants' responses to the following statements:

Government should discourage the informal economy as it is harmful to the Nigerian economy (HPF): Respondents overwhelmingly refuted this statement (see Table 8.2, Column E). Suggestively, an opposing statement is possibly true. This assumption is based on the consistency of participants' responses to questions on such variables as wealth (WTH), growth (GROT) and overcome poverty (OPOV). Thus, it can be inferred from participants' responses to the initial statement that the informal economy in Nigeria is economically useful (HPF) to its participants and the Nigerian economy, hence, should not be discouraged. Accordingly, HPF was constructed as an indicator factor to enable me carry out a MIMIC analysis.

People are poor because they work or do business in the informal economy as they are disadvantaged (WTH): Similar to the responses on the HPF indicator, respondents also disagreed with this statement (see Table 8.2, Column A). A contrasting statement is arguably correct; particularly, people are able to build up wealth (WTH) by working or doing business in the Nigerian informal economy. Thus, I construct WTH as a wealth indicator for the informal economy.

Informal sector activities are good for Nigeria's economy (GROT): This statement is straightforward and gained overwhelming acceptance from participants (see Table 8.2,

Column C). If the informal economy is good to the economy of Nigeria, it can be inferred that the former represents growth (GROT). I have constructed the GROT indicator to represent the positive economic effect of the Nigerian informal economy.

Informal sector helps people who are poor to overcome poverty in Nigeria (OPOV): Also, respondents tend to agree with this statement (Table 8.2, Column B). OPOV was constructed to capture how poverty reduction is an indicator of the informal economy.

Government does not have sufficient revenue as participants in the informal sector do not pay tax' (TAXR): Respondents tend to disagree with this statement (Table 8.2, Column D). Suggestively, the opposite of this statement is possibly true. Again, as argued under HPF, the assumption is based on the consistency of participants' responses to other questions that are related to TAXR. Hence, TAXR is constructed as an indicator of an informal economy which generates tax revenue through levies, taxes and ticket fees to the Nigerian government, as established in Sections 8.1 and 8.2.

Proportion of income from main job (PYMJ): The PYMJ was constructed from participants' responses to the question, what proportion of your income is earned from main job?

8.4.2 Results presentation and analysis.

Table 8.32: Primary data's MIMIC results

Path	Model A	Model B	Model C	Model D	Model E
UNEMP → INFEC	.103***	.09***	.094***	.077***	.059 (.063)
AUTO → INFEC	-.144***	-.141***	-.098***	-.109***	-.125***
BF → INFEC			.172***	.181***	
LTAX → INFEC	.109***	.094***	.075***	.080***	.081***
SURV2 → INFEC			.219***	.196***	.202***
INCL → INFEC	-0.044 (.368)				-.001 (.751)
SURV → INFEC	-0.038 (.429)				
TOMJ → INFEC	.054***	.049***	.039***		
INFEC → HPF	1	1	1	1	1
INFEC → WTH	.36***	.413***	.444***	.500***	.471***
INFEC → GROT	.503***	.628***	.607***	.627***	.611***
INFEC → TAXB				.496***	.445***
INFEC → TAXR	.12 (.175)				
INFEC → PYMJ				-.051 (.052)	
INFEC → BF					.513***
CMIN (P-V)	39.58 (0.235)	18.77 (.174)	35.99 (.092)	41.9 (.137)	39 (.217)
NFI	.7	.81	.8	.8	.81
IFI	.94	.944	.932	.95	.964
CFI	.923	.932	.922	.94	.96

RMSEA (L-H)	.02 (.0-.042)	.029 (.0-.059)	.03 (.0-.052)	.025 (.00-.046)	.024 (.0-.046)
AIC (D; S; I)	101; 130; 147	60; 70; 112	92; 108; 191	106; 130; 227	105; 130; 232
Total responses	418	418	418	418	418

Note: () = p-value; ***= sig at 5%; INFEC=informal economy; p-v=p-values; L-H=lowest-highest; DSI=dependent, saturated and independent; others are as defined.

Table 8.32 depicts 5 models which emerged from the numerous models tested, using variables explained in Section 8.4.1 and the primary data constructed for the Nigerian informal economy (see Section 8.2). Unfortunately, the models which had government regulation, more profit, and difficulty in registering formal businesses' causal-factors did not pass the best-fit measure, hence were deleted. Suggestively, the variables are statistically unimportant determinants of the informal economy in Nigeria.

The diagnostic statistics for MIMIC models are explained in Chapter 7, Section 7.2. For all the models in Table 8.32, the NFI value of 0.8 is not close enough to the 0.95 benchmark. However, the CFI and other diagnostics are good statistically, and Bentler (1990) has recommended the CFI be the index of choice. This is due to the fact that the NFI is influenced by a model's sample size, but the CFI and IFI are often adjusted for the size of the sample. With the exception of the NFI, model E meets all diagnostic criteria sufficiently. The other four models are equally good and well-fitting, posting at least a respective 0.932 and 0.922 for IFI and CFI, which are close to 0.95. It is worth stating that Byrne (2010, pg. 78) has noted that a CFI value greater than 0.9 (Bentler, 1992) or a value close to 0.95 (Hu and Bentler, 1999) are "considered representative of a well-fitting model". The same is true for the IFI.

In addition to these goodness-of-fit statistics, the badness-of-fit measure is also statistically significant for all models. Particularly, with a maximum value of 0.03, the RMSEA shows that all five models are well-fitting. Finally, the AIC criterion is met, as all values of the dependent model, in all cases, are lower than both the saturated and independent models. Accordingly, I accept that the values of these indices are good and statistically significant enough, to allow me use any of the models for analysis. Thus, I choose model C. Although, model E appears to be the best-fitting, going by its IFI and CFI values that are greater than 0.95, two variables (unemployment and income level, significant at 6.3% and 75.1% respectively) are statistically non-significant at the 5% level. Similarly, model A has three (income level, survival and tax revenue, significant at 36.8%, 42.9% and 17.5% respectively) statistically non-significant variables. Also, model C is chosen ahead of models B and D, as the former has more statistically significant-causal factors than the latter two models. As a corollary to the last point,

model C is preferred on the basis of theoretical thinking and consistency with results already discussed in Sections 8.1 to 8.3.

As can be seen from Table 8.32, model C (also see Appendix) the factors which determine the origin and expansion of the Nigerian informal economy include, UNEMP (no other job for participants), AUTO (need to be autonomous or self-employed), BF (corruption of government officials and agencies), LTAX (participants' desire to pay less tax), SURV2 (participants' need to survive), and TOMJ (time spend on main job/business activity). However, such factors as more profit, government regulation, and difficulty in registering formal businesses are statistically non-significant, hence not strong determinants of the Nigerian informal economy.

All factors, except autonomy (see next paragraph for explanation), have the expected sign. This means that an increase in the size of any of the factors, except autonomy, will lead to an increase in the size of the informal economy in Nigeria. Specifically, a unit rise in unemployment, corruption, tax avoidance, survival, and time on main job triggers a respective 0.094, 0.172, 0.075, 0.219, and 0.039 points expansion in the size of the Nigerian informal economy. The biggest influence, as one would expect, comes from the survival factor. This implies that many people, who do not have other options, go into the informal economy in Nigeria to engage in activities which enable them to earn a living. In terms of magnitude and influence, survival is closely followed by corruption. The implication of this is that corrupt government officials create an environment which encourages the informal economy in Nigeria. Finally, it is worth mentioning that the *posterior* positive sign of TOMJ, as hypothesised (see Section 8.4.1.1), implies that the research sample was drawn from a population of individuals who carry out their main business or work activity in the Nigerian informal economy. This reinforces the validity of the five criteria I used in constructing the informal economy dataset in Chapter 6.

The contrasting negative sign of the autonomy factor is a bit worrying as it suggests that an increase in the need to be autonomous or self-employed leads to a decline in the size of the informal economy. Clearly, this contrasts with the existing theory on the informal economy which hypothesises a positive relationship between the informal economy and autonomy. However, one explanation I can give about the negative sign of autonomy factor in my result is based on the fact that, relatively, the participants' ranking of the autonomy variable is more evenly shared among the '9 ranks' than the survival or unemployment variables. For example, the proportion of the first rank (as a percentage of the total ranks for each variable) of each of the unemployment, autonomy and

survival variables is respectively 53.9%, 27.9% and 59.1% (see Table 8.29). It is clear from the last point that in the first rank alone, survival and unemployment have more than 50%, but autonomy is just a quarter. Additionally, while survival and unemployment respectively have their rankings in a descending order, it is not so with autonomy which, for its part, shows a galloping pattern in its ranking.

The import of variables' ranking distribution is further appreciated if two facts are considered. First, the same scale was used to construct respondents' responses for all variables. Secondly, the ranks are in ascending order, i.e., 1st, 2nd ..., 9th, but their values are in descending order, i.e., 10, 9 ..., 2. Particularly, the 1st, 2nd ... and 9th ranks, respectively, are represented by a value of 10, 9 ... 2. This suggests that a variable might be chosen as an important determinant by many participants, but if its ranking-distribution is galloping, or more of the participants rank it behind other variables, it will necessarily take up a negative sign. Thus, instead of having a positive *posterior* sign, as expected, the ranking-distribution of the autonomy variable plausibly induced a negative sign. This implies that, while many participants think that autonomy influences people's decision to participate in the Nigerian informal economy (see Section 8.3.1.2), the former does not rank as the number one determinant of the latter for most of the respondents.

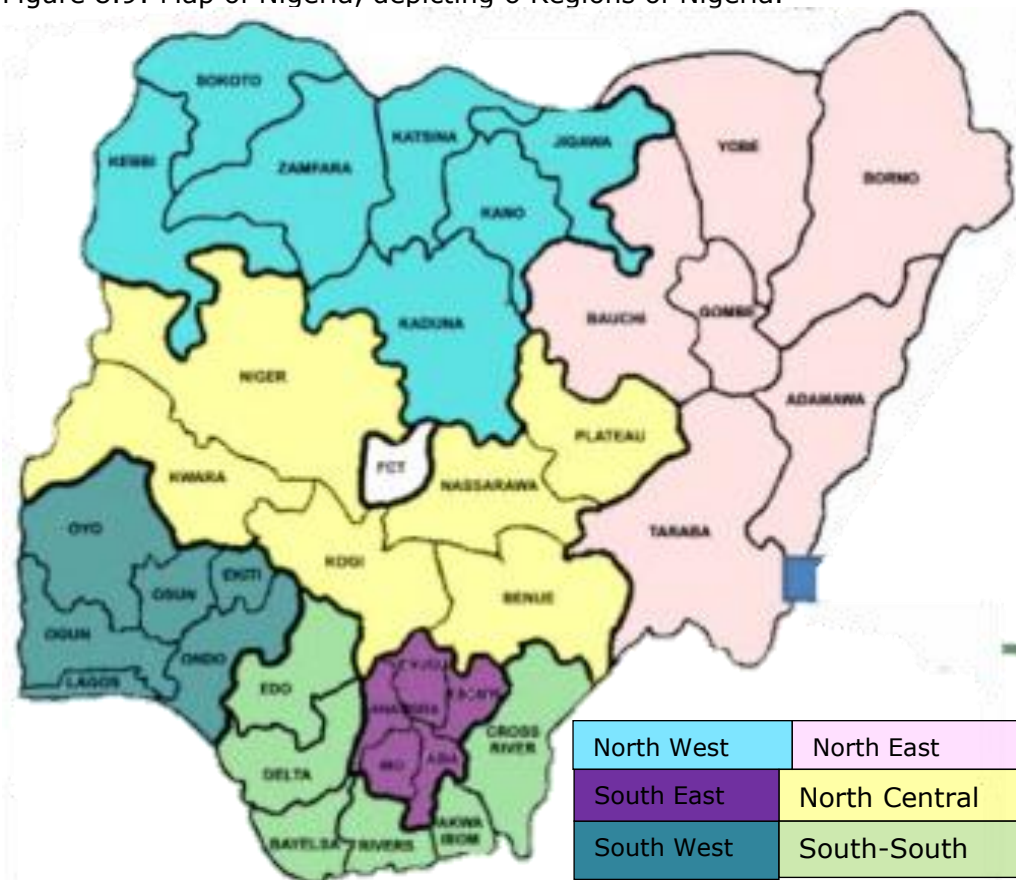
Also from model C in Table 8.32 (also see Appendix), it can be seen that the activities of the informal economy in Nigeria are indicated by the following factors: HPF (economically useful to participants and economy), WTH (wealth for participants), and GROT (the informal economy is good for the economy). These indicators experience an increase whenever there is an expansion in the size of the Nigerian informal economy. Specifically, a unit increase in the size of the Nigerian informal economy leads to a respective 1.0, 0.44 and 0.61 points increase in HPF, WTH and GROT. The implication of this is that the informal economy contributes positively to the Nigerian economy in total, by creating wealth for participants and contributing to GDP growth.

In concluding this section, it is important to restate that the size of the Nigerian informal economy is determined by such factors as corruption, unemployment, autonomy, less tax, survival and time spent on main employment. In turn, the indicators of the informal economy in Nigeria are manifest in its economically useful effect on the Nigerian economy, wealth creation for participants, and growth for the economy. In the next section, the regional prevalence of the informal economy in Nigeria is analysed.

8.5: Regional Analysis

The thrust of this section is to analyse differing regional features of the Nigerian informal economy, which will enable me to answer research question 2. Specifically, the subsection begins with Figure 8.9, which depicts the map of Nigeria and its six geopolitical regions. It is appropriate to restate that I did not collect data from the pink coloured part of the map (i.e., the north east region) due to the security challenges and threat to life in that region. Also, readers are reminded to consider the results discussed in this chapter in the context of a possible geographical, non-representative (hence, participants' characteristics) bias in the data that generated the results. Next, I analyse participants' state of origin and residence, and the socioeconomic factors of participants with respect to their regions of residence. I then, examine the regional size and characteristics of the informal economy in Nigeria. I also explore the type of linkages (i.e., forward or/and backward linkages) which exist at the regional level of the Nigerian informal economy.

Figure 8.9: Map of Nigeria, depicting 6 Regions of Nigeria.



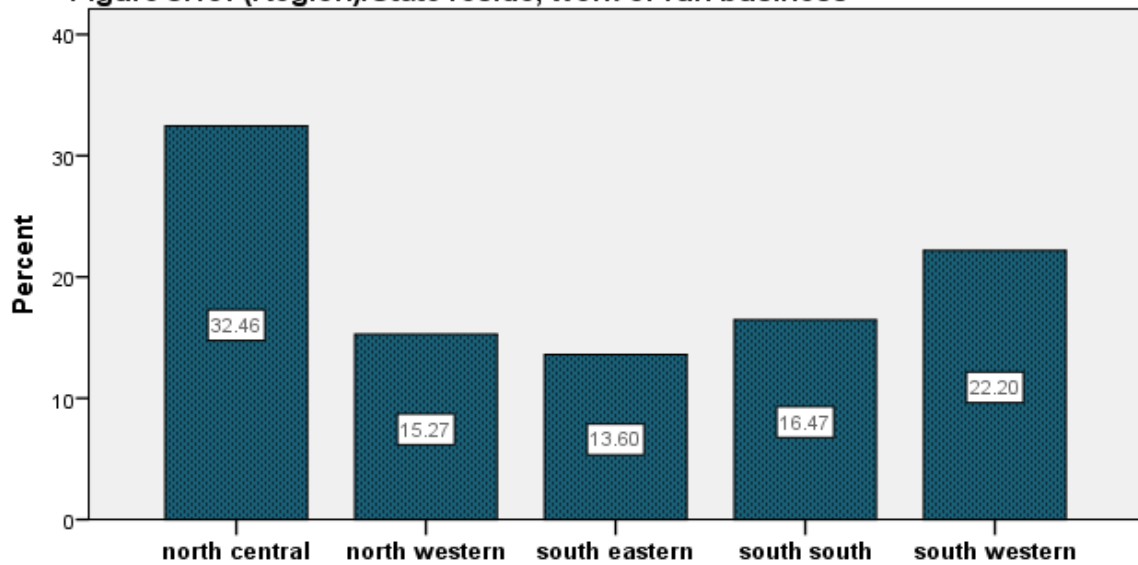
8.5.0 Region of Origin and Residence, Work and carry out Business

Table 8.33 shows participants' region of origin (RORIGIN) and the region where participants currently reside, work or carry out their business activities (RRWB). Although it is clear from the table that the highest proportion (27.9%) of participants had their origin from the south-west region, the north-central region has the largest share for participants RRWB. Similarly, all three southern regions have fewer people operating in them than those who had the regions as their birth, and vice versa. These results are not surprising, as Nigeria's capital city, which attracts workers and entrepreneurs from all regions of Nigeria, is in the north-central region. However, the north-west region shows a similar pattern to that of north-central. Suggestively, emigration is more prevalent among participants from the southern regions. It can equally be suggested that, while people from the southern regions migrate easily to north-central (vertical movement), those from the northern regions appear to favour migration within the northern regions (horizontal movement). Finally, it can be seen from Table 8.33 that 2.4% of respondents have north-east origin. However, none of the respondents works or carries out their business activities in that region. The simple explanation for this is that I did not collect data from the north-east region due to the security situation and threat to life in that region, as explained in Section 6.4.1. Thus, the respondents who originated from the north-east region (2.4%) are among those who have migrated to other regions to work or carry out their business activities.

Table 8.33: Participants region of origin & residence

	SORIGIN %	SRWB %
North Central (NC)	22.0	32.5
North Eastern (NE)	2.4	No data collected
North Western (NW)	6.2	15.3
South Eastern (SE)	18.6	13.6
South-South (SS)	22.9	16.5
South Western (SW)	27.9	22.2
Total	100.0	100.0
Total responses	419	419

Figure 8.10: (Region)/State reside, work or run business



While it was important to briefly compare respondents' RORIGIN with RRWB, it is the latter that is important to me, and forms the basis of subsequent analysis. Thus in the following sections, the cross-tabulation (and correlation) results of participants' RRWB with other important variables are presented in Tables 8.34-8.36 and analysed. It is worth noting that Pearson correlation coefficients are reported for region, level of education, income and savings variables in Table 8.34, and sources of stocks, customers and finances, and region in Table 8.36 because data for these variables have been computed/recoded as interval/scale data. Taking education qualification for example, there are different levels of education, which are progressive and attainable on the basis of an equal yearly-interval. Typically, a higher level of educational qualification necessarily spans over longer yearly-intervals than a lower level of educational qualification. Accordingly, participants that have achieved qualifications at the levels of at least a bachelors, higher than secondary but below bachelors, and at most secondary were, respectively, given a code of 3, 2, and 1. Similar procedures were followed for regions, as explained in the Note to Table 8.34.

8.5.1 Participants' Region *versus* Age, Education, Income and Savings.

Table 8.34 depicts the regional pairwise cross-tabulation (and correlation) of RRWB with participants' age, age stopped formal-schooling, level of education, income, savings, and business age. While, for the highest (H row) proportion of participants in Table 8.34, regional variation tends to exist in the ages of participants (age3 row) and their level of

education (levedu2 row). Not much variation is observed in the ages stopped formal-schooling (agesschl2 row), savings pattern (monsavings2 row) and income level (income group row) of participants. For example, it is clear that the highest proportion of participants from all regions, except NC, earn the minimum wage of eighteen thousand Nigerian naira (18,000.00 NGN) or below per month (at an exchange rate of 250 NGN to £1, the minimum wage is equivalent to £72 a month). Additionally, while the Pearson correlation coefficient (see last column) shows a negative relationship between participants' RRWB, and the income and savings levels, it has a positive correlation between participants RRWB and their level of education. The Cramer's coefficient, which confirms the existence of a relationship between participants' RRWB and each variable, is statistically significant at the 1% level for all pairwise relationships.

Also from Table 8.34 (levedu2 row), it is clear that the highest proportion of participants from the North Central (NC) (61.8%), South-South (SS) (60.9%), and South East (SE) (54.4%) hold at least a bachelor's degree. At the opposite end of the qualification scale are participants from the South West (SW) (37.6%) and North West (NW) (45.3%) who hold at most a secondary school qualification (the latter category includes those who are without formal education). There appears to be a positive relationship between RRWB and level of education. Particularly, the Pearson correlation coefficient indicates that the population of those who engage in the informal economy in the regions with higher educational qualifications (i.e., NC, SS and SE in this case) rises whenever there is an increase in the number of those who graduate from university. Conversely, the population of those engaged in the informal economy in regions with lower educational qualifications (i.e., SW and NW in this case) rises whenever there is an increase in the number of those who drop out of school, are without formal education, or stop schooling at the secondary level.

Additionally, participants' level of education appears to correlate with business age. Specifically, a higher proportion of participants from regions with the highest level of educational qualifications (NC, SS and SE) tend to have started their businesses more recently than those from less educational qualification regions (SW and NW) (see Table 8.34). Similarly, there appears to be a relationship between the regional level of education and the reasons for engaging in the informal economy. In particular, the highest proportion of participants (respectively 46.2%, 38.9% and 46.9% for NC, SS and SE) operating in the regions with the highest level of educational qualification have said they operate in the informal economy in order to survive, as there are no alternative employment opportunities (see Table 8.35). In contrast, the highest proportion

(respectively 42% and 43.6% for SW and NW) of respondents from regions with lower educational qualifications have indicated that their reason for engaging in the informal economy is autonomy (see Table 8.35), that is, the need to be self-employed and/or be their own boss. These observed relationships, in particular between the regional level of education and the age of businesses in the informal economy, and the regional level of education and the reason for engaging in the informal economy, are confirmed by the Spearman's rho correlation coefficient, shown in Table 8.34b. Specifically, Table 8.34b shows that while the relationship which exists between the level of education and business age is positive, it is negative for the level of education and reasons for operating in the informal economy.

This implies that, on the one hand, the positive relationship between the regional level of education and the age of businesses in the Nigerian informal economy confirms the contemporary theory of the informal economy - that more and more highly educated individuals now operate in the sector. On the other hand, the relationship between the regional level of education and the reasons for engaging in the informal economy corroborates the argument I made earlier, that the Nigerian government has not been able to provide formal jobs for its growing population, hence the growing size of its informal economy (see Section 8.3.1.1). Additionally, the negative sign of the correlation coefficient of the latter suggests that the proportion of the highly educated, which at first rises as these participants take up work or business activities in the informal economy due to the non-availability of alternative formal employment opportunities, falls once they are able to secure a full-time government or formal company job.

Table 8.34b: Correlations between level of education (levedu2) & business age (bizage2), reasons for operating in the informal economy (whyisr2)

Spearman's rho		levedu2	bizage2	Whyisr2
levedu2	Correlation Coefficient	1.000	.292**	-.127
	Sig. (2-tailed)	.	.000	.023
	N	419	205	320

Table 8.34: Correlation and cross-tabulation of region on participants' age, business age, income, savings and level of education

							Association & Correlation coefficients, & P-values	
	Highest (H) Lowest (L) proportion	NC %	SW %	SS %	NW %	SE %	Cramer	Pearson
Levedu2	H: At least a bachelor At most secondary	61.8	37.6	60.9	45.3	54.4	.23*	.13*
	L: At most secondary Higher education but below bachelor	13.2	29	17.4	26.6	19		
Bizage3	H: <20yrs (post-SAP era)	73	50.9	75.9	46	69.7	.24*	
	L: 20-26yrs (SAP era) <20yrs (post-SAP era)	4.8	20.8	6.9	20	6.1		
Agesschl2	H: 17-25yrs Over 40yrs	33.1	30.6	40	40.3	32.7	.17*	
	L: Under 17yrs 31-40yrs	4.8	11.8	5	12.9	5.8		
Income group.	H: ≤18,000NGN (minimum wage) 144001-576000 NGN	32.4	39.8	31.9	32.8	42.1	.21*	-.27*
	L: >576001NGN 72001-144000 NGN	7.4	1.1	1.4	0.0	1.8		
Monsavings2	H: 14401-57600 NGN	41.6	40	33.3	40	34.1	.19*	-.14*
	L: 1801-3600 NGN 3601-7200 NGN >57600 NGN	10.6	1.7	6.7	3.6	6.8		
Age3	H: 26-30yrs 31-40yrs >50yrs	36.4	34.4	37.1	35.9	31.3	.15*	
	L: 17-25yrs	5.4	11.1	9.7	4.7	8.3		

Where: *, **, & () is significant at 1%, 5%, & value respectively; NC= North Central; SW=South West; SS=South-South; NW=North West; SE = South East. Levedu2=level of education; bizage3=business age; agesschl2=age stopped schooling; monsavings2=monthly savings; age3=age of participants. The Pearson correlation coefficient is used to analyse levedu2, income group, monsavings VS. regional participation rate, as data for these variables have been computed/recoded as ratios/intervals data. This common practice in statistics (for example, see Argyrou, 2011), arranges concerned variables, which already have uniform scale/interval of increase/decrease, in a particular order of magnitude. For example, each region has given number of participants, and there is a uniform interval between, say, 1 and 2 participants, as well as 2 and 3 participants. Additionally, regions are arranged in descending order of magnitude, using number of participants, and recoded accordingly. A region that has the highest number of participants is given a code of 5, and the one with the lowest number of participants is given a code of 1, whilst other regions come in-between.

8.5.2: Regional share of the informal economy, and selected features

Table 8.35 shows the pairwise cross-tabulation (and correlation) results for participants' RRWB and the number of participants operating in the informal economy (Numisst2), main job undertaken by participants (Mainj3), second job undertaken by participants (Sec3), time spent on main job (Tomaj2), reason for undertaking a job or business in the informal economy (Whyis2), and the main business category engaged in by participants (Mbc2). The Cramer coefficients for all pairwise relationships, except RRWB *versus* Numisst2 and Mbc2, are significant at the 5% level. This confirms the existence of a relationship between RRWB and all variables except Numisst2 and Mbc2.

Regional prevalence of the informal economy: The proportion of individuals operating in the informal economy varies from one region to another in Nigeria. For example, the highest proportion of respondents from the NC (31.3%), SW (48.3%), SS (39.0%), NW (50%), and SE (41.1%) are of the opinion that a minimum of 80% of total employees operate in the informal economy, in their respective regions (see Table 8.35, Numisst2 row). The relative proportion of each region's responses shows significant regional differences, but there are similarities in the responses given by the highest proportion of participants from all regions. This trend is similar to the proportion of respondents, NC (21.1%), SW (14.9%), SS (18.6%), NW (11.3%), and SE (21.4%), who are of the opinion that at most 40% of total employees operate in the informal economy, in their respective regions (Numisst2 row). Additionally, there appears to be a positive, but weak, correlation between regional differences and the size of the informal economy, as evidenced by a low Pearson correlation coefficient of 0.091, significant only at the 7.2% level.

These results show that the regions with the highest proportions of individuals who engage in the informal economy are the NW and SW regions. Similarly, the two regions have the highest proportion of participants who operate as self-employed (see Mainj3 row). Conversely, the NC region has the lowest number of participants in the informal economy, and a high proportion of participants whose main jobs are provided by the government (see Mainj3 row). The NC is followed by the SS and SE regions which, respectively, have the second and third least informal economies, and the first and second highest proportion of participants whose main jobs are provided by the government. A similar trend is shown by the RRWB *versus* the time spent on main job, and the reason for engaging in the informal economy. Particularly, the highest

proportion of participants in the NC and SS work 8-9 hours daily (see row for Tomaj2), and are engaged in the informal economy to survive (see row for Whyis2). For their part, the highest proportion of participants in the SW and NW work 10-24 hours daily (Tomaj2 row), and are engaged in the informal economy to become their own-boss (whyis2 row). Working between 10-24 (over 10) hours a day tends to fit the autonomy reason for participating in the informal economy (see Section 8.3.2). Particularly, it describes the informal entrepreneurs who are not restricted by time, as they do their work/businesses.

These results are explicable for many reasons. One such reason is the fact that the NC region houses the capital city and it is more likely than other regions to have a relatively higher proportion of government and/or corporate employees. Thus, although it (the NC region) has its share of individuals who participate in the informal economy, most of the latter are transitory-informal participants (see Section 8.5.1). Hence, the informal economy of the NC region is not as large as those from other regions, albeit, the inclusion of the government and/or corporate employees who participate in the informal economy as a second employment or business activity. Another possible explanation for the results reported above is the presence of mega-commercial cities in the SW and NW regions. In particular, Kano and Lagos, the commercial hubs of the entire north and western part of Nigeria, are respectively in the NW and SW regions. This makes these regions attractive to all categories of individuals, including those who are able to secure formal employment, genuine entrepreneurs who want to start up their own-business and become autonomous, but start off from the informal economy, and others who want a formal job but cannot secure one, and hence, find their way into the informal economy. Evidently, higher proportions of informal participants are attracted to commercial cities due to the availability of bigger markets and greater opportunities in the latter. Thus, the informal economy springs up to fill the gap, and to distribute the products of the bigger-formal companies. In fact, evidence (see Neuwirth, 2011) tends to suggest that multinational companies employ informal participants in Nigeria to carry out the sales and distribution of their products.

Table 8.35: Correlation and cross-tabulation for regional share of the informal economy, and some selected features.

							Correlation/Association coefficients & P-values	
		NC %	SW %	SS %	NW %	SE %	Cramer (Phil)	
Numisst2	H: ≥8	31.3	48.3	39	50	41.1	.25 (8.7%)	
	≤4 (not H or L, but used for analysis)	21.1	14.9	18.6	11.3	21.4		
Mainj3	L: 5	10.9	8	6.8	8.1	5.4	.25*	
	6							
Mainj3	H: Government Self-employed	45.5	66.3	56.5	67.7	48.2	.25*	
	L: Corporate employee/student/applicant Self-employed	11.4	6.7	20.3	8.1	17.9		
Sec3	H: Self-employed	46.8	45	48	83.3	42	.23*	
	L: Corporate employee/student/applicant Government None	7.4	8.3	10	2.4 2.4	13		
Tomaj2	H: 8-9hours daily	44.6	50	43.8	43.4	48	.2*	
	10-24 hours daily				43.4			
Tomaj2	L: 0-7hours daily	21.5	13.2	14.6	13.2	24	.16**	
	10-24 hours daily							
Whyis2	H: Unemployment/Survival Autonomy	46.2	42	38.9	43.6	46.9	.16**	
	L: Bureaucracy (e.g, difficult to reg biz) Income related (more, extra), less tax	6.5	8.7	18.5	10.9 10.9	12.2		
Mbcatt2	H: Family/individual ownership	35.8	48.2	43.5	45.8	51.9	N.S.	
	L: LLC/JSC Partnership	16.3	9.6	14.5	11.9	11.1		

Where: *, **, & () is significant at 1%, 5%, & value respectively; NC= North Central; SW=South West; SS=South-South; NW=North West; SE = South East. Numisst2=number of people operating in the informal sector at the state level; employer2=participants' employer; mainj3r2=main employment; sec3r2=second employment; tomajr2=time spent on main job; whyisr2=why operate in the informal sector; mbcatt2=main business category.

8.5.3 Participants' Region versus Purchases, Sales, Finance, and Challenges

The cross-tabulation and correlation results for RRWB with respect to sources of purchases or stock of goods (stcksr2), sales' outlets (custs2), finance (cptls2 and rgsrf2), banking activities (blgranted2, and afbankln2), and challenges (hndisg2) are depicted in Table 8.36. The Cramer coefficient is statistically significant at the 5% level for all pairwise variables, implying the presence of an association.

Purchases/Stock of goods & sales sources: The highest proportion of respondents from all regions, except NW, buys their stock of goods from formal firms (Table 8.36, stcksr2 row). Similarly, participants from all regions, except NW and SE, sell their goods and services to, largely, family members and neighbours (custs2 row). In contrast, the highest proportion of participants from the NW buys stock of goods from, and sells their goods and services to, informal firms and their representatives. These results tend to suggest the existence of relatively higher backward and forward linkages between the formal and informal economy in the regions other than the NW region.

Source of capital and regular source of finance: A similar pattern is shown with respect to the start-up capital and regular sources of business-financing by participants from all regions of the Nigerian informal economy. Specifically, personal savings represents the main source of funding for businesses in the informal economy, for all regions. However, that does not show the full picture. For example, the last row shows that participants in the NC (35.3%) will more likely apply for a bank loan than participants from other regions. In fact, it is only 8.8% of participants in the informal economy in the SS region that are likely to apply for a bank facility. This can possibly be explained by the low success rate in acquiring bank facility from these regions. For example, while 41.2% of loan requests are granted in the NC region, it is only 10% loan requests to the banks that are successful in the SS region. Again, the NC participants' successes in acquiring bank facilities are possibly due to the capital-city effect, information symmetry, and participants' level of education/skills (further studies might be needed to confirm this).

Challenges in operating in the informal economy: in addition to the difficulty in securing bank facilities, participants were asked to write what the government was doing to slow down their operations. As can be seen from the Hndisg2 row (Table 8.36), regional differences exist. In particular, the biggest challenge for those who engage in informal activities in the NC and SE is the regulatory and tax burden, in SW and the NW is lack of government support, and in SS is inconsistent government policies.

Table 8.36: Cross-tabulation & Correlation results for sources of stocks, customers, finances and challenges for all regions.

							Association & Correlation coefficients, & P-values	
	Highest (H) Lowest (L) proportion	NC %	SW %	SS %	NW %	SE %	Cramer (Phi)	Pearson
Stcks2	H: Formal firms Informal firms	55.2	63.6	44 44	70.2	53.8	.28*	-.13**
	L: Family members/neighbours	15.5	18.2	12.0	14.9	7.7		
Custs2	H: Family members/neighbours Informal firms	52.7	49	44.4	72.7	51.9	.24*	-.19*
	L: Formal firms	14.5	14.3	25.9	4.5	14.8		
Blgranted2	Y	41.2	16.2	10	20	22.2	.27** (Phi)	.18**
	N	58.8	83.8	90	80	77.8		
Cptls2	H: Personal savings	67.2	66.7	75	77.6	54.8	.2**	
	L: Credit from bank, family, friends Help from family/set-up by master	15.6	3.5	6.3	2	22.6 22.6		
Rgsrf2	H: Personal savings	81.7	72.1	85.7	96	74.1	.23** (Phi)	
	L: Others (e.g, credit from buyers, sellers)	18.3	27.9	14.3	4	25.9		
Hndisg2	H: Regulatory & Tax burden No government support Government policy	51.4	51	58.3	40	43	.26*	
	L: Regulatory & Tax burden No government support	17.1	19.6	41.7	25.7	22		
Afbankl2	Y	35.3	16.9	8.8	20.4	27.6	.218** (Phi)	
	N	64.7	83.1	91.2	79.6	72.4		

Where: *, **, & () is significant at 1%, 5%, & value respectively; NC= North Central; SW=South West; SS=South-South; NW=North West; SE = South East. Stcksrs2=sources of stock source; custsrs2=sources of patronage/customer; bank lgranted=bank loan granted; cptlsr2=source of capital; rgsrfr2=regular source of finance; hndisgr2=hindrances; applied fbankln=applied for bank loan. The Pearson correlation coefficient is computed for the relationships between Stcks2, Custs2, Blgranted2, and regions, as data for all variables have been computed/recoded into ratio/interval data (for an example of the procedure, see Note to Table 8.34). However, the Pearson correlation coefficient is not statistically significant, hence, not reported, for Cptls2, Rgsrf2, Hndisg2, Afbankl2.

Conclusion

The goal in this chapter was to use current-primary, cross-sectional data to analyse the role, features, determinants, and regional prevalence of the Nigerian informal economy. To achieve my aim, I divided the chapter into five sections. In the first section, I demonstrated that the informal economy in Nigeria is large and essential. Particularly, it was shown that the sector provides economic benefits to participants, through poverty reduction, job creation and income generation; members of the public through the provision of cheap and easily accessible goods and services; and the government through income generation and by helping to achieve the macroeconomic policy target of reducing poverty. Also in the first section, I reiterated the evidence noted in Chapter 6, that the informal economy's participation rate in Nigeria is 65.4%. This was corroborated by the two-thirds of participants who believed that the Nigerian informal economy provides employment for over 60% of the country's labour force.

In the second section, I used the responses provided by participants in the Nigerian informal economy (i.e., 65.4% of the total sample) to investigate the socio-demographic characteristics, educational qualifications, and economic positions of participants. With mean and standard deviation ages of 40 and 11 years old, respectively, I found that relatively older people, more married individuals, some highly educated, and middle income Nigerians, operate in the Nigerian informal economy. Overall, evidence suggests that the Nigerian informal sector is a heterogeneous group of participants. For example, the participants in the sector cut across differing age groups, income levels, disciplines, and educational qualifications. While about 28% of participants earn wages below the minimum wages, I also found that the Nigerian informal economy provides the platform for about 72% of participants to earn wages which are higher than the minimum wage, hence, to overcome poverty. Additionally, it was reported that the sector provides jobs for a large number of people, but some of the jobs are of low quality and lack basic social protections. Also in this section, I examined the characteristics of the enterprises operating in the Nigerian informal economy. I found that the number of new enterprises established rose significantly during periods of economic crisis in Nigeria, and there were suggestions that many entrepreneurs operate in the Nigerian informal economy.

In the third section, I investigated the factors which determine the Nigerian informal economy. My findings show that unemployment, need to survive, the desire to be autonomous, and time spent on main job, are some of the factors which influence the

size of the Nigerian informal economy. Also found important are such demographic factors as: religion, age, marital status and level of education which to some extent influence the size of the Nigerian informal economy. However, the sex of participants does not appear to be a strong factor of influence in Nigeria's informal economy. In the fourth section, I built a MIMIC model to further confirm the determinants of the Nigerian informal economy that are statistically significant. My findings clearly show that the Nigerian informal economy is determined by such factors, as corruption, unemployment, autonomy, less tax, survival and time spent on main employment. However, such factors as government regulation, more profit, and difficulty in registering formal businesses are not strong determinants of the Nigerian informal economy, as they are statistically non-significant.

Finally, in the fifth section, I carried out a regional analysis of the informal economy in Nigeria. My findings reveal that regional differences exist in the ages and levels of education of participants, but only limited regional differences exist in participants' savings patterns, income levels, and the age at which participants stopped formal education. I also found that differences exist in the regional size of the informal economy, as the NW and SW regions tend to have the highest proportions of self-employed and participants in the Nigerian informal economy. In contrast, the NC, SS and SE regions, respectively, have the first, second and third least informal economies, and the third, first and second highest proportion of participants whose main jobs are provided by the government. Similarly, the highest proportion of participants in the NC and SS work 8-9 hours daily, and are engaged in the informal economy to survive. In fact, most of the individuals who engage in the informal economy from the NC region are transitory-informal participants. For their part, the highest proportion of participants in the SW and NW work 10-24 hours daily, and are engaged in the informal economy to become their own boss and are arguably more entrepreneurial.

In the next chapter, the goal is to use these findings and those from the previous chapter to provide specific answers to the questions I set out to answer in this research. This I hope to achieve by cross-referencing each question with the evidence that has been discussed in this and previous chapters.

Chapter Nine Further Analyses and Discussion of Results.

9.0 Introduction

The aim of this chapter is to discuss further the results presented in Chapters 7 & 8 and use it to answer the research questions. To reiterate, the questions I set out to answer in this research were:

1. How does the informal economy impact on official GDP growth in Nigeria?
2. What are the characteristics of the informal economy in Nigeria, and what does a regional analysis add to our understanding of the informal economy literature?
3. What are the determinants of the informal economic model in Nigeria, and what can other countries with informal sectors of similar size learn from the Nigerian experience?
4. In which way/s, and to what extent, is the informal economy related to real macroeconomic variables, and small businesses in Nigeria?
5. What do the results of this project suggest should be the policy response to the informal economy?

Each of these five questions is now discussed in turn. It is worth re-emphasising that results discussed here should be viewed in the light of the challenges encountered in their computation process, as explained in Chapters 7 and 8. For example, it was explained that the results computed from the currency approach were unstable and did not allow the completion of diagnostic tests. This, as argued, is largely due to data insufficiency, non-availability, and unreliability, which I have not had control over. Similarly, in Chapter 8, it was noted that the collected survey used for analysis possibly suffers from geographical and non-representative biases. This, as explained, is largely due to the security challenges in parts of Nigeria, time and cost constraints, and low responds rate from FIWON participants. Conversely, I also argued that these biases are possibly moderate, given that diverse people visit the different locations from which surveys were collected.

9.1 Research question I

How does the informal economy impact on official GDP growth in Nigeria?

I discuss, in this section, nine important ways in which the informal economy impacts on official GDP growth in Nigeria. By so doing, Research Question I will be answered. The impacts of the informal economy on official GDP growth in Nigeria can be construed through:

- a. The economic activities undertaken by participants.
- b. The employment created by participants, for themselves and others.
- c. Participants' often multiple locations of operation facilitates job creation and the distribution of goods and services.
- d. Poverty reduction.
- e. Income generation for participants and the economy.
- f. The operational and financial autonomy it gives to participants.
- g. The time invested by participants in carrying out their business activities.
- h. The linkages which exist between formal and informal economy.
- i. GDP growth.

9.1.1 Economic activities undertaken by participants

In Section 8.2.4 and Table 8.15, it was noted that close to two-thirds (63.2%) of those carrying out their businesses or work in the Nigeria's informal economy have at least six dependants. Arguably, the economic activities undertaken in the informal economy are sufficiently viable that they are able to generate enough income to cater for six or more dependants. Although the results reported in Tables 8.15 possibly include participants who engage in the informal economy as a second job only, Table 8.11 and Section 8.2.3 also shows that the majority of those who have a second job, do so for income related reasons. Evidently, some participants earn all income from the informal economy, whilst others earn a proportion of their income from the sector to supplement main income (see Table 8.9; Section 8.2.3). Regardless of the proportion of income earned, participants in the informal economy engage in an economic activity to earn the income.

Arguably, the economic activities undertaken by these participants are considered economically viable since the former is able to generate all or part of the latter's income. My argument is that the process of carrying out these activities impact on GDP growth in Nigeria. Thus, as participants engage in an economic activity in the form of a main or second job, in the informal economy, to earn main or extra income, it follows that official GDP growth in Nigeria is positively impacted. The underpinning principle for my argument is akin to Adam Smith's (1776) assertion that any attempt by an individual to maximise his/her benefit often leads to the benefit of the whole economy being maximised.

In addition, the productive activities carried out by participants in the informal economy are diverse and essential, as shown by the various sectors the latter operate in (see Table 8.10; Section 8.2.3). Similarly, that the highest and second highest proportion of participants respectively trade (31%) and operate kiosk/workshop related activities (22%) (see Table 8.2b), at many locations, tends to support the argument that the informal economy impacts official GDP, as this gives final consumers easy access to the goods and services provided by the informal economy. For example, having these goods and services at close proximity to the final consumers (see Section 8.1) saves quality time, as it enables the latter group to concentrate on their jobs and enhance their productive activities in the economy. Similarly, that the products are cheap (Section 8.1) makes it possible for many individuals to access goods and services which can enhance their standard of living. Finally, it serves the interest of formal firms, as they are able to leverage on the close proximity of informal participants to the final consumers, to sell their goods and services, as established in Section 8.5.2.

A possible critique of my assertion is, that the type of activities (Table 8.10) undertaken by participants are largely trade- and kiosk-based could be seen as a drawback for the informal economy and its participants. Particularly, some (see examples Becker, 2004; ILO, 1972; Bureau and Fendt, 2011) have observed that such trade- and kiosk-based activities in the informal economy are not able to yield sufficient income to participants, but only exist to provide income or a safety net for the poor, and represent a systemic flaw and failure in the economic model of a country. For example, I have noted in Section 2.1 that majority of the trade- or kiosk-based participants in the informal economy are children and adults who sell all kinds of things: mobile phones and its accessories, clothing materials, shoes, bags, food stuff, vegetable and fruits on wheelbarrows, on their hands and most times in trays/bags on their heads across the cities and at traffic junctions. Arguably, these individuals participate in the informal

economy in order to survive. However, the analysis in Section 8.2.3 shows that the majority of participants in the Nigerian informal economy earn sufficient income, hence contradict the position of the authors above. So I reject this criticism.

It is worth recognising that my results also suggest that there are minority-participants in the Nigerian informal economy who possibly operate at the margin (economically). Specifically, some of those who undertake jobs or business activities in the Nigerian informal economy are daily confronted with the issues of low income, low wages and poverty. For example, Table 9.1 shows that over one-third (35.1%) of main participants and half (49.8%) of secondary participants in the Nigerian informal economy earn wages which are below official minimum wages. Also, their responses to the questions on poverty in Table 8.2 show that, while 15% are indifferent, 17.9% are of the opinion that the informal economy does not help participants to overcome poverty in Nigeria. Similarly, while 15.7% are indifferent, close to one-third (29.6%) are of the opinion that the Nigerian informal economy breeds poverty as participants are poor and disadvantaged. Additionally, there are 9.3% of participants in the Nigerian informal economy who think their jobs are insecure, risky, irregular and cause poverty (see Table 8.26, Columns 1 & 2). This, according to them, is largely caused by too much competition (24.2%), lack of customers (18%) for, and inaccessible loans (17.5%) to, participants in the informal economy. For these categories of participants, it can be argued that the economic activities they undertake in the informal economy are not sufficiently viable; hence, they are not able to earn sufficient income to enable them break out of the poverty cycle.

In conclusion, two categories of participants exist in the Nigerian informal economy, as established in Section 8.2.3; the majority who earn high income and the remainder who earn low income. This confirms the argument in the literature (see Becker, 2004; Schneider, 2005) that differences exist in the characteristics of individuals who operate in the informal economy, notably, while there are some who earn high income, there are others who earn very low income/wages. However, in the case of participants in the Nigerian informal economy, the majority tends to fall in the high-income earning group.

9.1.2 Employment:

The results of the secondary data analysed in Chapter 7, Section 7.2.2 shows that population growth is one of the main determinants of the Nigerian informal economy. Specifically, a 1% growth in population leads to 2.43% expansions in the size of the

Nigerian informal economy. This is possibly because population outgrew the number of formal jobs created in Nigeria, whilst the informal economy expanded to close the gap, over time. Thus, this underscores the role of the informal economy in employment creation, and also, the impact of the informal economy on official GDP growth in Nigeria. Additionally the analysis in Chapter 8 (Sections 8.1; 8.2.3; 8.2.4.1) corroborates the argument that the informal economy, through its contributions to job creation, impacts on official GDP growth in Nigeria. However, the quality and impact of employment provided by the informal economy is contentious. While some (see examples ILO, 2009; Macias and Cazzavillan, 2009) see it as lacking in quality and detrimental to the overall economy, others (see examples Moser, 1978; Chen, 2001; Becker, 2004; Verick, 2006; Reddy, 2007; Gurtoo, 2009) viewed it differently and showed its positive impact on the economy, as discussed in Section 4.2.2. Both arguments tend to be applicable to the Nigerian informal economy.

On the one hand, Table 8.2b shows that employment creation accounts for nearly half of the informal economy's overall contribution to Nigeria's economy. This is corroborated by the evidence that the highest proportion of informal participants operate as small enterprises or are self-employed (Section 8.2.3), and carry out their activities in the informal economy in order to overcome unemployment challenges (Section 8.3.1.1). Additionally, my argument is supported by the conclusion in Section 8.2.3 that a significant amount of participants have a second job or business, and nearly all second jobs or business activities are carried out in the informal economy. Taking the importance of a second job or business activity to participants in the informal economy further, it is difficult to reject the claim that the informal economy positively impacts official GDP through employment creation. For example, it was shown in Table 8.11 that having a second job enables participants in the informal economy to earn extra income. Specifically, some informal participants in Nigeria maintain a second job in order to augment their main income/salary. Interestingly, Table 9.1 shows that half (50.2%) of respondents' wages from their second jobs are higher than the official minimum wage (18,000NGN). The import of the argument is that the informal economy is able to provide quality and viable alternative employment opportunities which enable participants to earn these incomes. Similarly, the income earned is used to enhance their standard of living and the overall economy through their spending power.

Table 9.1: Income from main & second job or business activity

	Main (%)	Second (%)
≤18000 (minimum wage)	35.1	49.8
18001-36000	13.7	18.1

36001-72000	18.9	15.7
72001-144000	15.2	8.0
144001-288000	9.8	8.4*
288001-576000	4.4	
>576000	2.8	
Total	100.0	100.0
Total valid frequency	387	249

Note: *>144000

On the other hand a significant amount of employment provided by the Nigerian informal economy is of low quality, and does not meet the International Labour Organisation's standard. For example, it was shown in Table 8.12 that a good proportion of participants in the Nigerian informal economy do not have good working conditions, particularly, about 33%, 35%, 36%, and 42%, respectively, do not have a written contract/agreement, pension contributions, paid sick leave and paid annual leave. Similarly, it was inferred from the same table that well over half do not have job security as they could be dismissed from their employment without any advance notice (81.9%), and lack job dismissal-compensation (56.4%). Finally, a good proportion of participants do not have good-business locations, as they operate either in their employer's home (17.4%), on the street (3.3%), or no fixed location (9.1%), as depicted in Table 8.13. The nature and quality of these jobs leave many of the participants with low incomes and poverty, as argued earlier. It is not surprising that 43.8% of respondents (see Table 8.16) indicated that they will trade-off their operation in the informal economy for a well-remunerated government/formal private sector job, if available.

Thus, these results suggest that the Nigerian informal economy provides employment opportunities which enable many individuals to earn income for a living, support their dependants, or earn extra income to maintain their chosen standard of living. By so doing, the informal economy does not only reduce the level and rate of unemployment, it also makes it possible for the individual participants to engage in activities which positively impact on official GDP growth in Nigeria. However, there are others for whom employment in the informal economy is substandard.

9.1.3 Participants' often multiple locations of operation facilitates job creation and the distribution of goods and services

The number of business locations operated by participants in the Nigerian informal economy is shown in Table 8.13, and it is clear that most operators have a minimum of two business locations. The impact of this on official GDP is unquantifiable. On the one hand, such individuals facilitate the distribution system by taking their goods and

services closer to the final consumers (also see Table 8.2b; Section 9.1.1). In addition, these individuals are able to create jobs by operating their businesses at more than one location. The number of employees working at each business enterprise in my sample is shown in Table 9.2, and it can be seen that over half (56%) of respondents have at least five employees working in their enterprises. Although, one may want to adjust for the 24% (i.e., 15.8% who have 50+ and 9.2% who have 20-49) which is the proportion of enterprises having 20 or more employees, as that threshold represents medium- or large-scale enterprises. However, it is important to point out that the breakdown of the 43.6% of enterprises with 1-4 employees is not clear, but I have reasons to believe that some of the enterprises within this group have more than one employee. One such reason is the analysis in Section 8.1 which shows that two-thirds of participants indicated that 60% of Nigerians operate in the informal economy. Thus, the informal economy's important contribution, through its participants' multiple operating-locations, to job creation and efficient distribution of goods and services, indisputably shows its impact on official GDP growth in Nigeria.

Table 9.2: Number of employees in respondents' enterprise

	%
0	0.4
1-4	43.6
5-9	20.1
10-19	11.0
20-49	9.2
50 and more	15.8
Total	100.0
Total valid frequency	273

Yet, critics might argue that operating in more than one business location compounds the social and environmental malaise constituted by some of the participants in the informal economy. Particularly, such participants in the informal economy as vendors who hawk from one part of the city to another and create disorder and dirt along the street, create illegal structures, and alter the urban geographical plan. This is a drawback that must be tackled by policy makers. However, the benefits of having an efficient distribution system and employment opportunities through the multiple locations of operators in the Nigerian informal economy are strongly positive on official GDP growth, hence, it deserves some recognition.

9.1.4 Poverty reduction:

The role of the Nigerian informal economy in poverty reduction represents one of the ways the informal economy impacts on official GDP growth in Nigeria. I have

demonstrated in Sections 8.1 and 8.2.3 (also see Tables 8.2 & 8.2b) that the informal economy enables individuals to live above the poverty line in Nigeria. Particularly, it was noted in Section 8.2.3 that 72% of participants in the Nigerian informal economy are able to break out of the cycle of poverty by earning wages which are above the official minimum wage. (In contrast, this also implies that 28% of participants in the informal economy are possibly poor, as they earn wages which are below official minimum wages). Similarly, two-thirds of participants are of the opinion that the Nigerian informal economy enables participants to overcome poverty and 56.7% think that the informal economy does not make people poor (see Section 8.1). Conversely, while 15% are indifferent, 17.9% are of the opinion that the informal economy does not help participants to overcome poverty in Nigeria. Similarly, while 15.7% are indifferent, close to one-third (29.6%) are of the opinion that the Nigerian informal economy breeds poverty as participants are disadvantaged. Also, there are a few (9.3%) participants who claim that poverty, job insecurity and risk are their greatest challenge for operating in the informal economy.

Thus, the process of engaging in informal activities creates two categories of individuals in Nigeria as shown in Section 8.2. One is the majority of participants who are able to live above the poverty line due to their informal activities. The other category of participants is the minority who remain poor, though they take up a job or start up a business activity in the informal economy. Following these results, I conclude that the informal economy impacts official GDP growth in Nigeria, as it provides opportunities and incomes for the majority of participants which enable them to live above the poverty line.

9.1.5 Income generation for participants and the economy:

The informal economy impacts official GDP growth through the former's ability to provide income generating opportunities for individual participants, and the government which collects levies and taxes from participants, as revealed in Chapter 8. Specifically, when asked to write down two contributions of the informal economy to Nigeria's economy, income generation for individuals and the economy were among those given by respondents (see Table 8.2b). This is not surprising, as most individuals who engage in activities in the informal economy do so for economic related reasons (see Tables 8.28, 8.11), and are well remunerated (see Sections 8.2.3, 9.1.4; Table 9.1). Particularly, close to two-thirds (64.9%) of participants in the informal economy earn wages which surpass the official minimum wage (see Table 9.1). For its part, the government benefits from informal activities in Nigeria, as the former issues daily operating tickets to, and

collects taxes and levies from, individuals and firms carrying out their job or business activities in the informal economy (see Section 8.1). In fact, most of the participants in the Nigerian informal economy have seen this as a challenge and complain of being exploited by government officials (Section 8.2.5). In conclusion, if the informal economy generates income for the individuals and government, as argued in the foregoing, then its positive impact on the growth of official GDP in Nigeria will be a valid claim.

9.1.6 Number of hours spent daily on main job or business:

The amount of time spent on the work or business activities in the informal economy impacts official GDP growth in Nigeria, as established in Chapter 8. Time was initially a 'surprise variable' in my analysis, as I never thought it was very important. However, the empirical results revealed the huge influence of the variable in the Nigerian informal economy. Specifically, from the MIMIC (see Table 8.32; Section 8.4.2) and correlation (see Section 8.3.5) results, it was established that the variable 'time spent on the job' is statistically significant at the 5% level and represents a key determinant of the Nigerian informal economy (see Section 8.4.2). The importance of the factor is much more appreciated if one considers the fact that Nigeria has a large informal sector (see Section 8.1) and most of the informal participants work daily hours which are higher than official daily working-hours (see Section 8.3.2). In fact, time spent on economic activities in the informal economy highlights the benefit of operating informally, as it, unlike the formal economy, does not have any form of restrictions. For example, while formal firms have opening and closing times, informal enterprises do not, but operate round the clock. Thus, the huge amount of time invested in the economic activities undertaken by informal participants contribute significantly to productivity, and hence, the growth of official GDP in Nigeria.

9.1.7 Formal-informal linkages:

Nigeria's official GDP growth is impacted on by the forward and backward linkages which exist between the formal and informal economies in Nigeria. It is worth restating that forward linkages mean the subcontracting of some production processes to informal enterprises by formal firms, or/and the selling of informal outputs to markets or firms which are outside the borders of the informal economy. When there is a high forward linkage, formal firms use the outputs of informal enterprises as raw materials and consumer goods. Backward linkages, on the other hand, involve getting inputs outside the borders of the informal economy; this may include the supply of finance, raw

materials, consumer goods, and machinery/equipment from the formal to the informal economy (see Section 2.4). I have reported a reasonable level of both forward and backward linkages in the Nigerian informal economy in Section 8.2.5.3. In particular, I showed there that formal firms buy their raw materials from informal firms and the latter, in turn, buy stock from the former. On the part of the formal-informal forward linkage, I have revealed in Chapter 3 (also see Akande and Akerele, 2008; Neuwirth, 2011) evidence of exchanges between large formal firms/corporations and small informal firms. In fact, there are suggestions that some multinationals secure contracts and rights to execute certain projects in Nigeria, but often sub-contract all or aspects of its execution to firms operating in the informal economy. This type of forward linkage is common in the construction industry, and the oil and gas sector (see Section 4.2.2). Additionally, goods produced locally by participants in the informal economy are often displayed and sold in big supermarkets and formal firms. This type of forward linkage is popular with locally made drinks, delicacies, clothes, shoes, arts and crafts products.

On the backward linkage side, formal firms/big companies often employ the services of participants in the informal economy to launch their new products, and as a continuous outlet for selling existing products, as discussed in Chapters 4 and 8. For example, MTN, a global telecommunication company operating in Nigeria, has been operating this way, as its products are sold by all categories of informal participants – hawkers, kiosk-operators, street stalls, small- and large-scale distributors (see Section 4.3.1). A similar approach has been adopted by motor-bike manufacturing companies and others in the food and drinks industry in Nigeria. For example, a common practice in Nigeria is that hawkers sell, in their hands, tray on their heads, or in wheelbarrows, different brands of snacks produced by multinational companies (see Section 8.5.2). Another interesting aspect of backward linkages in the Nigerian informal-formal economies is in the area of financial support, as enterprises operating in the informal economy sometimes receive financial support from formal firms. Particularly, it is accentuated in Table 8.19 that one source of regular finance to informal participants in Nigeria is credit from suppliers.

The benefit of an un-skewed linkage between the formal and informal economy is that it enables participants in the latter to earn more income than when the linkage is skewed in favour of firms in the formal economy. Also, it can facilitate the use of locally sourced materials in production, self-reliance for the host country, and the exchange of such resources as financial, managerial, and supervisory with participants in the informal economy. Thus, a balanced formal-informal linkage facilitates the productive and income earning potentials of the informal economy, hence, stimulates official GDP growth.

9.1.8 GDP growth:

The impact of the informal economy on the official GDP growth is the subject of discussion in sub-Sections 9.1.1-9.1.7. However, GDP growth is separated for discussion here to show the level of importance attach to it by respondents, who specifically picked it out as one of the ways the informal economy contributes to the Nigerian economy (see Table 8.2b). Unlike most of the research questions, that asked participants to choose from a list of options, this particular question requested participants to list two contributions which the informal economy makes to the Nigerian economy. Generally, the responses from participants, ranked and depicted in Table 8.2b, provide strong evidence to support the claim that the informal economy impacts on Nigerian official GDP growth. Particularly, compared with the other listed contributions of the informal economy to the Nigerian economy, GDP growth is ranked second highest (20.2%) in the first ranking and highest (32.9%) in the second ranking (see Section 8.1; Table 8.2b). In the words of respondents, the informal economy “pays tax to the government, and generates income for the economy to grow” (source: respondents’ answers to question 57 of the research questionnaire). Thus, the result suggests that official GDP growth is impacted on by the income generated by participants in the informal economy.

Similarly, the discussion in Section 8.1 shows that the Nigerian informal economy is good for the economy, makes positive contributions, and pays its share of taxes to the government. This result contrasts with the existing literature, which suggests that people engage in the informal economy because they want to avoid taxes (see Chapter 3). Rather, it reinforces the claim that the informal economy impacts on official GDP growth in Nigeria by generating income for the government through paid taxes and other levies, as demonstrated in Chapter 8. Additionally, with an average contribution of 53% to Nigeria’s official GDP, as highlighted in Chapter 7 (see Sections 7.1.2.1, 7.2.2 & 7.3), the informal economy does not only generate growth in GDP, potentially, fluctuations in the former can also significantly induce fluctuations in the latter.

9.2 Research question II

What are the characteristics of the informal economy in Nigeria, and what does a regional analysis add to our understanding of the informal economy literature?

Detailed discussion of the characteristics of the Nigerian informal economy in this section could amount to repeating what had been done in Chapters 7 and 8. Thus, to answer

Research Question II, I will summarise the main points from these chapters. In Section 7.1, I confirmed the existence of a long run relationship between currency (the ratio of currency in circulation to demand deposit) and the following explanatory variables: current GDP, CPI, exchange rate, oil prices, deposit interest rate, tax burden, and level of total unemployment in Nigeria. However, worth noting are the *posterior* signs of some of the variables which contrasted with a *a priori* hypothesis. One is the deposit interest rate that was expected to be negative but turned out to be positive. As explained in Sections 7.1.2 and 8.2.5, participants in the Nigerian informal economy are rational economic agents who plausibly compare the savings, inflation and lending rates before taking decisions, and the savings rates, which have been lower than the other two rates, do not encourage savings.

Another is the tax variable which is negatively signed and contrasts with the *a priori* hypothesis. It also contradicts the general assertion that a rise in tax burden leads to an increase in currency holding, expansion in the size of the informal economy, as explained in Sections 7.1 and 3.2 (also see Dell'anno and Halicioglu, 2010; Tanzi, 1983). Going by the analysis in Section 7.1, the Nigerian government's deliberate reduction in tax rates, induced by the increased dependence on oil revenue and the rise in revenue from oil sales, possibly explains the behaviour of the tax variable vis-à-vis the informal economy. On the other hand, I have also argued that based on evidence from primary data and existing studies, tax burden is indeed a problem in Nigeria, its negative relationship with currency holdings notwithstanding. While official (secondary) data suggest that tax rates have fallen, and government revenue (hence, money supply/currency holdings) has risen over time, which possibly explains the negative relationship between C and TB, unofficial data (i.e., my collected survey) show that businesses in Nigeria have been multi-taxed and levied. Additionally, there is evidence that individuals/firms in Nigeria are pushed into the informal economy by the high level of corruption and high-cost operating environment, as well as policy inconsistencies, which also reinforce the first two factors (see Sections 7.1.2; 8.1; 8.2.5; 8.3; 9.3). The remainder of this section summarises results from Chapter 8.

9.2.1 Characteristics of participants:

Accentuated in Sections 8.2 and 8.3 is that the Nigerian informal economy is dominated by male, married, middle-aged (a respective mean and median ages of 40 and 40 years) and relatively educated participants, though there are a few who are not educated at all. While some (a relative highest proportion of 27.9%) of the participants earn very low

wages, about 60% earn wages which are at least double the minimum wage, and over 60% categorise their level of income as, at least, middle income earners. Trade and workshop/garage/kiosk related activities are the dominant work or business activity undertaken in the Nigerian informal economy. However, highly skilled professionals (e.g., medical doctors, nurses, accountants, architects) carry out consultancy services or out-of-office hours personal practice in the sector. For their part, job-applicants/searcher and students are engaged in the informal economy as a temporary measure, or to shore-up their income base. Finally, government (and some corporate) employees are involved with the informal economy in Nigeria, as a second job or own-business set-up.

Additionally, about one-third of participants have no pension contribution, sick-leave, annual leave, and neither written contract nor agreement. Also, well over half do not have job security as they could be dismissed from their employment with neither advance notice (81.9%) nor compensation (56.4%) (see Section 8.2.3). Just over half of participants operate in more than one business location, a fifth operates as part-time, and a similar proportion operate a seasonal job-business activity in the Nigerian informal economy. About three-fifth of participants are members of a trade union or professional body; and it is beneficial to be membership of a trade union, as unions facilitate technical and financial support, market information and professional advancement for members. Finally, there appears to be a lot of entrepreneurs in the Nigerian informal economy (Section 8.2.4), as over half of participants indicate they prefer operating in the informal economy to taking up government employment, even when the government makes jobs available for all participants.

9.2.2 Characteristics of the business enterprise:

The analysis in Section 8.2.5 shows that business enterprises in the Nigerian informal economy grow during periods of economic crisis, and all except 0.6% of enterprises have been registered in one form or another, with 46.6% registered with the Corporate Affairs Commission (CAC). CAC is the government institution with responsibility for registering all businesses in Nigeria. Between two-thirds and four-fifths of participants' respective initial capital and regular sources of finance are from personal savings. Also, participants sometimes receive financial support from parents/relations, master (i.e., mentor or trainer), credit from suppliers or buyers, and their daily-contribution or cooperative group. Close to a quarter of participants requested a bank loan, out of which a similar proportion had their request granted (see Table 8.20). The latter translates to just 3.9% of all participants who have received a bank facility (Table 8.19). While three-quarters

of participants have not requested a bank facility, largely because the loan process is complicated, and bank lending rates are high. Some did not need a bank facility, but a similar proportion of those who requested a facility were unsuccessful, largely because they did not have sufficient collateral, initial-capital outlay, and their enterprise or its activities were considered unviable by the bank as discussed in Section 8.2.5. The latter is explicable, as four-fifths of participants do not keep adequate records that would enable the bank to decipher the condition of their business.

The formal and informal economies are involved in the exchange of raw materials, consumer goods and services with each other, although informal enterprises tend to buy more than they sell to formal firms. Specifically, while just above a third (35.1%) of participants buy their stock/raw materials from formal firms/companies, it is only just above a fifth (13.4%) of formal firms which patronise the informal economy (see Sections 8.2.5; 8.5.3). Corroborating Arimah's (2001) findings, my results indicate that higher backward than forward linkage exists between the Nigerian informal and formal economy. Finally, as discussed in Section 8.2, inadequate finance/inaccessible loans and high lending rates are the biggest problems of informal participants. These are closely followed by an unsupportive and irresponsible government, and high-risk job or business, job insecurity or irregularity, and poverty. Similarly, too much competition, and lack of customers are the biggest challenges confronting participants. Participants in the Nigerian informal economy's problems or challenges are exacerbated by the government or its agencies, which collects excessive taxes and multiple levies from the former. In addition, a high level of corruption tends to exist in the Nigerian informal economy, as over half of respondents claim it is difficult to operate in the sector without giving bribes to corrupt government officials. Other participants claim they have been demoralised by the government's inability to provide encouragement/training, financial support, and electricity/infrastructure facilities.

9.2.3 Regional analysis:

Following the analysis in Section 8.5, the highest proportion of participants in the Nigerian informal economy, with respect to the region of origin, is from the south-west region, and the second highest is from the south-south region. Conversely, in terms of the region where participants reside, work or carry out their businesses, the north-central and south-west regions respectively have the highest and second highest proportion of participants. Additionally, there tends to be more emigrants from the southern to the northern regions, as evidenced by the lower proportion of participants

who are resident in the southern regions, than the proportion which originated from it, and vice versa. Specifically, more participants are resident in, than those who originated from, the northern regions. A possible explanation for this is the fact that the north-central region houses the federation's capital city. Typically, most of the citizens in search of greener pastures are attracted to the capital city. For their part, participants from the northern regions are likely to be attracted to the north-west region, being the commercial hub of the northern regions. It is important to note that going forward analysis will be based on the region where participants are resident, work or carry out their businesses, which could affect some characteristics discussed.

Income earned by participants varies across regions, as participants resident in the north-central region earn more than those in other regions (see Section 8.5.1). Specifically, while the highest proportion (averaging one-third) of participants resident in each region, except north-central, earn wages equivalent to the minimum wage or below, a similar proportion in the north-central earn wages which are eight times the minimum wage (also see Table 8.34). However, the correlation coefficient indicates that the size of the informal economy in each region has, respectively, a positive and negative relationship with income earned and savings made by participants.

On average, participants resident in the informal economy of the south-west and north-west regions tend to be less educated than those in other regions. Particularly, the correlation coefficient suggests that the informal economy in the south-west and north-west regions expands when there is a rise in the number of individuals who drop out of school/without formal education (Section 8.5.1). The other regions experience an increase in the size of the informal economy whenever there is a rise in the number of university graduates. (Although I can argue that migrating from region of origin to region of residence could partly be responsible for this trend, further research may be required to fully unravel the factors responsible). Additionally, the regions with more highly-educated informal sector participants tend to have enterprises which are more recently started-up than those from regions with less formal-educational qualifications. Although, I have explained in Section 8.5.1 that the reason for this trend is due to the transitory nature of highly-educated informal participants, it will be interesting also to find out in future research if other factors, particularly attitudinal change in how entrepreneurial skills are developed is responsible. Similarly, participants from more-highly educated regions engage in the informal economy largely for survival or unemployment reasons, which contrast with those from regions with less formal-educational qualifications who engage in the informal economy largely for autonomy

reasons as explained in Section 8.5.1. Also explained in the same section is the implication of these findings.

Additionally, the south-west and north-west regions have the largest informal sectors, and the most self-employed participants in the Nigerian informal economy. Conversely, the north-central region has the fewest participants in the informal economy and expectedly, the highest proportion of those employed by the government. Finally, participants resident in the informal economy of the south-west and north-west regions spend more time in the informal economy than those of other regions. As explained in Section 8.5.2 the trend cannot be unconnected with the fact that the two biggest commercial cities in Nigeria are in the south-west and north-west regions. Typically, higher proportions of informal participants are attracted to commercial cities due to the availability of bigger markets and greater opportunities in them. Thus, in an attempt to fill the gap, and to distribute the products, of the bigger-formal companies, the informal economy does not only get enlarged in these regions, participants resident in those regions also work extra hours. In fact, it has been noted by some (see example, Neuwirth, 2011) that multinational companies employ informal participants in Nigeria to carry out the sale and distribution of their products. This is supported by the evidence I presented in Section 9.2.2 and by Arimah (2001), that a higher level of backward than forward linkage exists between the Nigerian informal-formal economy. Additionally, the discussion in Section 8.5.3 suggests the existence of relatively higher backward and forward formal-informal linkages in all Nigerian regions other than the north-west region. Specifically, while the highest proportion of participants resident in other regions buy their stock and sell some of their goods to formal firms, those resident in the north-west region buy stock from, and sell their goods to, informal firms.

Also, personal savings are the dominant source of finance for businesses in the Nigerian informal economy for all regions, though participants from the north-central show some appetite for bank credit facilities (Section 8.5.3). Particularly, a third from the north-central will most likely seek a bank credit facility and close to half of that are likely to be successful. This contrasts with the less than one-tenth from the south-south who will possibly request a bank facility and a similar fraction whose request is likely to be successful. Generally, participants in the Nigerian informal economy have a very low bank credit success rate, which could be partly-pinned down to the high income earned from the sector by some participants and the consequent potential ability to make savings which potentially reduces participants' need for borrowing to finance their business operations, as argued in Section 9.2.2. However, bulk of other reasons for

participants' failures in obtaining bank credits are discussed in Section 8.2.5. Finally, the biggest challenges for those who engage in informal activities in the north-central and south-east regions are regulatory and tax burdens; in the south-west and north-west regions are the lack of government support; and in the south-south region is the inconsistency in government policies.

9.3 Research question III

What are the determinants of the informal economic model in Nigeria, and what can other countries with informal sectors of similar size learn from the Nigerian experience?

Going by the results reported and discussed in the preceding sub-sections, and in Chapters 7 and 8, it is clear that the informal economy is very important to the Nigerian economy overall. Particularly, the results have shown that the Nigerian informal economy is large in size, contributes income for government and individuals, provides employment, reduces poverty, and facilitates economic growth (see Sections 7.2; 8.2). The role of the informal economy in exacerbating or stabilising economic fluctuations in Nigeria was also accentuated in Sections 7.2 and 8.2 (also see Section 9.4). Additionally, while regional differences exist in some areas of the Nigerian informal economy, the overwhelming evidence in support of the importance of the sector to the Nigerian economy tends to be the same in all regions (Section 8.5). My findings are hardly surprising, considering the factors which are responsible for the emergence and growth of the Nigerian informal economy, as identified in previous studies. Specifically, the informal economy in Nigeria has arguably emerged from a policy environment, expanded pre-, during and post- SAP eras of the 1980s (see Meagher and Yunusa, 1996), and has continued to grow to date. Beginning in the 1960s and 1970s, the government of Nigeria has recognised the informal economy as capable of stimulating the economy for growth. However, the sector, faced with such constraints as low productivity and weak technology, was not able to realise its anticipated developmental potential. At best, the Nigerian informal economy became both a host to and a transitory place for the unemployed. The government of Nigeria then made efforts at unleashing this potential by proposing various policies, but such policies were not well implemented for various reasons; the strongest being official corruption, inadequate funding, and the implementation of policies not tailored to the needs of the informal economy (see

Meagher, 1991b; Meagher and Yunusa, 1996). These constraints notwithstanding, the informal economy in Nigeria has continued to expand.

Pre-SAP expansion is attributable to the effect of the oil price boom, which was followed by a massive migration to the urban centres, of youths in search of formal jobs. Specifically, most of the migrants to urban centres during the oil price boom had skill gaps which made them unemployable in the formal economy and the only alternative left to them was taking up jobs in the informal economy. Additionally, the wide gap in the income levels of employees at the upper and lower spectrum of formal employments, and the stagnating income of lower-level employees, accelerated the expansion of the informal economy. For its part, the SAP era growth in the Nigerian informal economy is traceable to the SAP policies which were characterised by caps on wages, privatisation of public enterprises, retrenchment of civil and public servants, devaluation of the local currency, underemployment and disguised unemployment. Finally, the post-SAP era expansion in the Nigerian informal economy is attributable to the effects of SAP policies, which are well captured by the CBN (2009), as population growth and decades of increasing rates of unemployment and escalating incidence of poverty, respectively put at about 12.9% and 57.9%. Similarly, the post-SAP drivers of the informal economy in Nigeria, as captured by others (for example see Klein, 1999; Trager, 1987; Ademola and Anyankora, 2012; Fapohunda, 1981; Mabogunje and Filani, 1981; Sethuraman, 1981; Meagher and Yunusa, 1996) are the flexible nature of informal economic activities, the relatively-higher income earned from informal jobs, the need to continue with a family business, and the traditional sources which arose from the need to earn or augment income for certain categories of individuals. Examples of such individuals are civil servants, who were in active employment but earned low income, the growing population of unemployed secondary and tertiary school graduates, the growing proportion of children and the female group that go into the sector for survival reasons, and those individuals who undertook activities in the informal economy as a strategy for their retirement.

The Nigerian informal economy have been influenced by three key factors, the country's overdependence-on and mismanagement of oil revenue, population explosion which was initially induced by rural-urban migration, and the undesirable consequences which followed the implementation of the SAP. Strikingly, this study shows that these factors have remained strong determinants of the Nigerian informal economy to date. Specifically, in Section 7.2, I used the results of the MIMIC approach (see Equation 7.5) to demonstrate that population growth, trade openness and real GDP per capita are the

variables which determine the size of the Nigerian informal economy. Specifically, a 1% rise in population growth and trade openness, respectively, leads to 2.43% and 0.162% expansions in the size of the Nigerian informal economy. Conversely, a 1% rise in real GDP per capita initiates a 2.08% reduction in the size of the Nigerian informal economy.

Also, the discussions in Section 8.2.5 suggest that the mismanagement of the Nigerian economy has led to expansion of the informal economy. For example, policy makers have been accused of delivering an inconsistent economic policy and providing an unconducive business environment, as evidenced by the unstable exchange rates, high inflation rates, high level of insecurity, non-provision of basic and infrastructure facilities, high cost of utilities, and the high cost of running formal businesses, which have induced an expansion in the size of the Nigerian informal economy (see Section 8.2.5). Additionally, the failure of the government of Nigeria and their clear mismanagement of the country's resources, which are manifest in the government's inability to provide adequate jobs for the ever-growing population, embezzlement of oil revenue, high level of corruption, bureaucracy and failure of the public sector have pushed many Nigerians into the informal economy (see Section 8.3).

Economic and Social factors:

In addition to the results reported in Chapter 7, discussed above, the factors which emerged from the rigorous statistical analysis of collected primary data in Chapter 8, as determinants of the Nigerian informal economy are: *unemployment* (no other job for participants), *autonomy* (desire to be autonomous or self-employed), *corruption* (corruption of government officials and agencies), *tax avoidance* (participants' desire to pay less tax), *survival* (participants' need to survive), and *time* (time spent on main job/business activity). These factors have been extensively discussed in Section 8.3. To summarise, all the factors, except autonomy, have a positive relationship with the informal economy. This means that an increase in the size of each factor, except autonomy, will lead to an increase in the size of the informal economy in Nigeria. For its part, I expected the autonomy factor to be positive like other determining-factors. However, it turned out to be negative, and I have made an attempt to explain the contrasting posterior sign in Section 8.4.2.

Taken together, the biggest influence on the Nigerian informal economy comes from population growth for secondary data (Chapter 7), and the *survival factor* for primary data (Chapter 8), although regional differences exist (Section 8.5). Specifically, while

most individuals from the south-south, north-central, and south-east regions participate in the informal economy to survive (as no other jobs exist elsewhere), their counterparts from the south-west and north-west regions engage in the informal economy because they want to be autonomous or self-employed (see Section 8.5.1). In terms of magnitude and influence, survival is closely followed by *corruption*, which suggests that corrupt government officials create an environment in which the informal economy thrives in Nigeria (see Sections 8.3 & 8.4).

Demographic factors:

I have demonstrated in Section 8.3.4 that *religion, age, marital status* and *level of education* are the demographic factors which influence the Nigerian informal economy. Specifically, it appears that more Muslims than Christians (although the sample has an overwhelming bias of 79.6% for Christians, in contrast to 20.4% Muslims, as no data was collected from Muslim-dominated North-East region of Nigeria due to boko-haram induced security challenges), more married than not-married, and older than younger, Nigerians engage in the informal economy (see Chapters 2, 4 & 8). Additionally, the results reported in Section 8.3.4 shows that people with lower educational qualifications are more likely to participate in the informal economy than their counterparts with higher qualifications. Thus, this result corroborates my claim in Sections 8.5.1 and 9.2.3 that most of the more-highly educated participants in the Nigerian informal economy are transitory participants, as they are engaged in the informal economy largely for survival and/or unemployment reasons, and will likely exit the sector once they are able to secure a position befitting fulltime employment.

9.3.1 A Theory of the Nigerian informal economy

The aim is to use the determinants of the Nigerian informal economy to show what theory/(ies) is/(are) applicable in Nigeria. The results that emerged from Chapter 7 show that tax burden, population growth, trade openness, and real GDP per capita determine the Nigerian informal economy. For its part, the results which emerged from Chapter 8 show that the informal economy is determined by: corruption, unemployment, autonomy, less tax, survival and time spent on main employment. These factors can be grouped into state (unemployment, tax burden, corruption, population growth, trade openness, GDP), firm (less tax, survival, trade openness), and individuals (unemployment, autonomy, less tax, survival and time spent on main job) factors. They can also be grouped into economic (unemployment, tax burden, survival, time, and macroeconomic

factors), institutional (corruption, tax burden, unemployment) and socio-economic (autonomy, population growth) factors. While different classifications of these factors are possible, they appear to fall into most of the dominant theories of the informal economy.

Specifically, the dualist theory claims that economic failures and backwardness, and faster rate of population growth are the determinants of the informal economy as shown by the 4Cs framework/Figure 5.2 (also see Section 2.1). From my results, corruption, population growth, unemployment, tax burden, survival, and macroeconomic failures can be classified as elements of dualism. For their part, the structuralist and legalist theories argue that firms' desire to avoid costs, legislation, and bureaucratic failures are the reasons for engaging in the informal economy (see Figure 5.2; Sections 2.2, 2.3). Thus, elements of structuralism and legalism from my results can be less tax, survival, and reactions to the failures of macroeconomic policies. Also, the voluntarist theory argues that bureaucratic process and cost are the determining factors of the informal economy (see Figure 5.2; Section 2.3). Corruption and less tax would be the elements of this theory that are statistically significant in my results. However, time spent on main employment is a unique determinant of the Nigerian informal economy which does not follow the main theory stream, whilst government regulation, difficulty in registering business, and more-profit factors are statistically non-significant in Nigeria.

In conclusion, most of the factors linked to the main theories of the informal economy tend to be operational in Nigeria. However, as noted in Sections 9.3 & 9.4, there are differences in magnitude and influence of these factors. Finally, time spent on main employment is a determinant of the Nigerian informal economy, which corroborates Sookram and Watson's (2008), but contradicts Lemieux *et al.*'s (1994), findings.

9.3.2 Lessons for other countries:

The relevance of these factors identified as determinants of the Nigerian informal economy to countries with similar sizes of informal economy are that the determining factors are likely to be similar, though potential variances in magnitudes and influences are expected. This is based on the fact that most of the factors reported in this study have been found to be responsible for the origin and expansion of the informal economy in the literature. Specifically, *unemployment* (e.g., Hart, 1971, 1973; Andrei *et al.*, 2011), *autonomy* (e.g., Gerxhani, 2004), *corruption* (e.g., Bureau and Fendt, 2011; and Hart, 2012), *tax avoidance* (e.g., Schneider and Enste, 2000), *survival* (e.g., Moser, 1978; Hussmanns, 2004), *time* (e.g., Lemieux *et al.*, 1994; Sookram and Watson, 2008),

high rate of population growth (e.g., see Becker, 2004; Sethuraman, 1981, 1988), *failures in a country's economic models and policies* (e.g., Bureau and Fendt, 2011), and *demographic* (e.g., Becker, 2004; ILO, 2009) factors have been reported as key determinants of the informal economy for different countries. However, the fact that differences, in terms of magnitude and influence, are likely to exist among the determining factors for each country necessitates separate studies for individual countries.

9.4 Research question IV

In which ways, and to what extent, is the informal economy related to real macroeconomic variables, and small businesses in Nigeria?

9.4.1 Poverty reduction:

One of the key macroeconomic goals of policy makers is poverty reduction, and I assert in this study that the informal economy has been a source of poverty reduction in Nigeria. Particularly, following the discussion in Sections 8.1 and 9.1.4 on poverty, and respondents' answers to the two questions on poverty, Q41 and Q42 of the questionnaire, I note that a positive relationship exists between poverty reduction and the informal economy in Nigeria. Thus, as the informal economy expands in Nigeria, the level of poverty falls. This is the view of the majority of respondents who disagreed with a statement in the questionnaire that individuals become poor in Nigeria because they participate in the informal economy. In corroboration, the majority of participants agree with a follow-up statement that the informal economy in Nigeria enables participants to overcome poverty.

The strength of this relationship is further underscored by the high proportion of informal participants who are able to break out of the poverty cycle by earning sufficient income from their activities in the informal economy (see Section 9.1 above). Specifically, at an exchange rate of \$1:160NGN, the official minimum wage is \$3.75 a day (i.e., $18000/160=112.5/30\text{days}=\3.75), and from Table 9.1, close to two-thirds (64.9%) of respondents earn, from their main employment, wages in excess of the official minimum wage. Similarly, from the same table, it is clear that just above half (50.2%) of respondents earn, from their second employment, wages in excess of the official minimum wage. From these results, it is safe to conclude that most of the participants in

the Nigerian informal economy operate above the poverty line, as they earn wages which are at least quadruple the daily poverty threshold of \$1.25.

9.4.2 Employment creation:

Another key macroeconomic goal of policy makers is full employment for the citizenry. While full employment may not be achievable, economists often talk in terms of an acceptable rate of unemployment. In the face of dwindling formal employment, the informal economy has provided an alternative for many citizens (Section 8.2.3). This has significantly reduced the rate of unemployment in many countries, although debates still exist about the nature and quality of employment provided by the informal economy (see Sections 4.2.2; 9.1.2). In Nigeria, however, the role of the informal economy in employment creation is huge and seen as good for the economy (see Sections 8.1; 8.2; 8.4). Particularly, the discussion in Sections 9.1.2 and 9.1.3 clearly suggests that a positive relationship exists between the informal economy and employment creation in Nigeria. This has been demonstrated empirically in Section 8.4.2.

Similarly, the extent and strength of this relationship is captured by the high proportion of Nigerians working in the informal economy as their main or second employment (see Sections 9.1.2 & 9.1.3). In addition, I showed in Section 8.4.2 that a unit rise in formal unemployment will cause a 0.094 points expansion in the size of the Nigerian informal economy. When transposed, that conclusion could read a 0.094 (or 94) points expansion in the size of the Nigerian informal economy leads to the creation of 1 unit (or 1000 units) of employment (I assume that all those who experience formal unemployment take up employment in the informal sector). Finally, I noted in Section 8.1 that over two-third of respondents think that at least 60% of Nigerians carry out their job or business activities in the informal economy.

9.4.3 Economic Growth:

The aim to increase and sustain the productive capacity of an economy is another macroeconomic goal of policy makers. Typically, innovation, technological advancement, research and development (R&D) are factors often cited as facilitating economic growth. These factors are often treated within formal economic boundaries. However, I wish to argue that economic growth can also arise from the activities undertaken in the informal economy. Particularly, I have demonstrated in sub-Section 9.1.8, and in fact, all Sections 9.1.1-9.1.8, how the informal economy impacts on official GDP growth in Nigeria. Also, in Chapter 7 (see Sections 7.1.2.1, 7.2.2 & 7.3) I have shown that the

Nigerian informal economy contributes over half of official GDP. Specifically, the accompanying graphs (Figures 7.1, 7.2 & 7.3) provide the evidence of a positive relationship between the Nigerian informal economy and official GDP growth. Essentially, these previous sections have emphatically highlighted the importance of the informal economy to the growth of the Nigerian economy. Additionally, it is clear from Section 8.4.2 that the informal economy is good for the Nigerian economy and creates wealth for participating individuals and the economy. Particularly, as indicators, I showed that an expansion in the size of the Nigerian informal economy would induce a rise in wealth for the economy and individuals undertaking economic activities in the sector.

9.4.4 Business Cycle:

Reducing the negative effects of business cycles is the final key macroeconomic goal of policy makers. As established in Section 7.2 the informal economy is important to the business cycle in Nigeria, and can be the underlining factor in achieving the goal of macroeconomic stability. My argument is underpinned by the fact that the Nigerian informal economy significantly affects the Nigerian economy, as it is large, and contributes to GDP, income, employment and poverty reduction (Sections 8.1; 8.2). It is not surprising that the empirical results in Chapters 7 and 8, and, in particular, Figure 7.3 clearly show a positive relationship between the Nigerian informal economy and growth in official GDP.

9.4.5 The informal economy & small businesses in Nigeria:

Participants in the Nigerian informal economy are predominantly small businesses, as the sector largely consists of the self-employed, family-owned, and individual-owned enterprises (see Sections 8.2.3; 8.3.4; 8.5.2). Although, the data I re-constructed in Table 8.10b show that the proportion of self-employed/small enterprises in participants' main and second employment are respectively 46.8% and 51.4%, the remainder in each case (i.e., 53.2% for main and 49.4% for second employment) will arguably fall into the categories of government, corporate employees, and students/applicants who carry out one form of economic activity or the other in the informal economy. This argument is justified by Table 8.10 which shows that only 2.2% of participants are employees (both as main and second) of the government. The implication of this is that, at least 97.8%, of respondents operate in the informal economy.

Also, my argument is supported by the reconstructed data of the Nigerian informal economy in Section 6.4.3. For example, two of the five important criteria used in arriving

at the database were information on 'participant's employer' and 'proportion of income earned from main job'. These criteria did not only produce data for the informal economy, they also suggest that many operate in the informal economy to earn a supplementary income to that earned from their main employment (also see Section 8.2.3). Finally, shown in Section 8.5.2 is the result that regions with the highest proportions of individuals who engage in the informal economy are the north-west and south-west regions. At the same time, these two regions have the highest proportion of participants who operate as self-employed (also see Table 8.35). The conclusion that can be drawn from the foregoing analysis is that the Nigerian informal economy and small businesses appear to be inextricably linked.

9.5 Research question V

What do the results of this project suggest should be the policy response to the informal economy?

The results from this study have established the important role of the informal economy in Nigeria. In addition to the discussion in Section 9.1, I demonstrated in Chapter 8 that the Nigerian informal economy provides relatively cheap goods and services to the general public, and promotes economic self-reliance, domestic production, skills acquisition and entrepreneurial development. However, some of the characteristics and determinants of the informal economy indicate that there are challenges which need addressing if participants in the informal economy are to make a greater contribution to the economy. Globally, the objective of formalising as many informal enterprises as possible appears to be a key policy thrust (see Section 3.1.3). This is understandable considering that participants in the informal economy are seen as tax avoiders and/or tax evaders (see Sections 3.2; 4.1). On the other hand, Neuwirth (2011) and De Soto (2011) have predicted that the informal economy will be the future of the global economy.

In the case of Nigeria, the stance of policy makers on the informal economy does not appear to be that of formalisation, but how the informal economy can provide jobs for the growing population, stimulate the economy for growth, and help reduce poverty (see Meagher and Yunusa, 1996; Akintoye, 2008). However, the snag in Nigeria is often the political economy, as there appears to be conflicts between the policy stance and approach of the government to the informal economy. On the one hand, there is policy which tends to support the informal economy (see Meagher and Yunusa, 1996). On the

other hand, there is evidence which tends to suggest that policy makers do not care about the informal economy and its participants (see Section 8.2.5). Although the informal economy has continued to make positive impacts on Nigeria's economy (see Sections 7.1, 7.2; 8.1, 8.2; 9.1), it is yet to achieve its full potential due to internal and external forces or challenges, as noted by Meagher and Yunusa (1996). Arguably, individuals who operate in the sector can become more efficient, fully employed, contribute more to GDP and the overall economy, and earn more income for themselves if the challenges confronting them are addressed. By so doing, the Nigerian informal economy will become more efficient, and contribute more to employment creation, poverty reduction, income generation, and GDP growth. However, achieving this objective will require the right policies and political will, patience, and cooperation from all stakeholders. So, my recommendations will be discussed under the Individual, Firm and State (IFS) taxonomy, although a substantial amount of it is directed to policy makers.

It is worth recognising that the formal economy in Nigeria has really been disappointing in terms of job creation, poverty reduction, and it is bedevilled by a high level of corruption and bureaucracy which hinders economic activities, but triggers an expansion in the informal economy (see Sections 8.1, 8.2; Sethuraman, 1981; ILO, 1988; Dike, 1992; Ademola and Anyankora, 2012). So, my recommendations will encourage, strengthen, and support all relevant economic activities in the informal economy in Nigeria. Particularly, areas of strength will be acknowledged and encouraged, but the challenges and problems confronting the sector and its participants will be addressed. Accordingly, I seek policies that will create an environment, which enables the private sector to thrive and create jobs in Nigeria. Also, I seek policies that reduce crime rate and corruption level, provide social infrastructures, reform the education system, and encourage entrepreneurial development. Typically, if the right policies are formulated and implemented, and jobs are available to those that want to take up formal employment (especially some of the current participants in the informal economy), the informal economy in Nigeria will contract. This lives behind the true entrepreneurs who set up and run their own businesses in the informal economy (see Sections 8.2, 8.5; Chapters 3, 4). Then, these informal participants will be able to achieve their full potential, and contribute more to the Nigerian economy.

9.5.1 Recommendations for the Individual participants (I):

The characteristics of participants in the informal economy are indications that the sector comprises complex and heterogeneous groups, as explained in Chapters 2, 3 and Section 8.2.3. For example, the results analysed in Section 8.5.2 indicates that both transitory- and permanent-participants exist in the Nigerian informal economy. I recommend that these different categories of participants in the informal economy seek all possible channels to let policy makers know their status; The transitory-participants should define the type of jobs they want and can do, and those who have chosen to become self-employed in, or are deliberately involved with, the informal economy, should become members of a trade union, and develop skills which are germane to their success in the sector.

Register with a trade union/professional body: To begin, individuals participating in the informal economy should get together to form, where none exists, a trade union which will represent their interest. FIWON is a practical example to mimic on this. In instances and sectors with existing trade unions, all participants are encouraged to become members, as they stand to benefit from such relationships (see Section 8.2.3). One such benefit is the adequate dissemination of relevant information, as information asymmetry tends to be the bane of most participants in the informal economy. Specifically, some respondents to the research questionnaire claim there is high competition in their area of operation, and the need for access to market information and large scale supply of the goods they trade in, was required if they were to be able to sustain their activities in the informal economy (see Section 8.2.5). This is one way trade unions have assisted their members, as some respondents who belong to a trade union indicated that they received technical, financial, marketing, and managerial supports from their unions (Section 8.2.3). Additionally, trade unions can protect their members from the impulses of over-zealous and corrupt government officials. Similarly, trade unions can assist members in finding solutions to such operational challenges, captured in Section 8.2.3 as, no-contract agreements, job insecurity, pay for sick and maternity leave, employment termination benefits, regulatory and tax burden, and inconsistent government policies. Finally, trade unions can represent the channel through which government policies for the informal economy are implemented.

However, I recognise the fact that some trade unions can be exploitative. To avoid this, I recommend that government makes it mandatory for all trade unions to be registered with the relevant government institutions, and their activities, especially those relating to financial dealings with members, should be regularly audited.

Trainings and skills acquisition: One thing common to participants in the informal economy, especially those with lower-educational qualifications, is the dearth of relevant skills, as analysed in Chapters 2-4 & 6, and depicted in Tables 8.26 & 8.28. For example, as explained in Section 8.2.5, there are clear gaps in accounts and bookkeeping, operational, technical and managerial skills of participants in the Nigerian informal economy. Training in such areas will facilitate their ability to access finance from banks, manage their businesses better, expand their operational capacity, and increase the chances of success and survival in the formal economy, should they formalise. Additionally, some participants may have to acquire trainings on the processes, purposes and benefits of seeking extra finance from a bank and/or other financial institutions.

9.5.2 Recommendations for participating firms (F):

The recommendations given to individuals are also applicable to the firms operating in the informal economy, given that the composition of the latter shows they are largely self-employed or running small businesses, as demonstrated in Sections 8.2.3, 8.3.4 and 8.5. Thus, by becoming membership of a trade union or professional body, the interest of informal enterprises can be facilitated. For example, and adding to the benefits identified for individuals who become members (see Section 9.5.1), trade unions can help nurture to full maturity, budding entrepreneurs and enterprises in the informal economy. Similarly, having relevant training can enhance the operational capabilities of the owners of informal enterprises, as discussed in Section 8.2.3. For example, and furthering the benefits identified for individuals who will obtain extra skills (see Section 9.5.1), relevant training will place informal enterprises in a position where they can expand their business operations. Other recommendations for the firms operating in the Nigerian informal economy are discussed below.

Special products for informal firms: The fact that adequate financing or access to credit is important to the growth of an enterprise cannot be overemphasised. However, as explained in Section 8.2.5, enterprises in the Nigerian informal economy find it difficult to attract credit from commercial banks, as the latter often considers the former's initial capital outlay too small, collateral insufficient and business activities unviable. Additionally, there are the problems of cumbersome loan processes and excessive interest rates being charged by the bank. The effect of these factors on informal entrepreneurs and enterprises are either that they are discouraged from making loan requests to banks, or their requests are unsuccessful (also see Section 8.5.3). To solve this problem, I recommend the designing of a special bank credit product, which takes

into cognisance the peculiarity of enterprises in the informal economy. Where such products already exists, they should be well publicised to enable participants in the informal economy to take advantage of them.

This is one way trade unions/professional bodies representing informal enterprises can be very useful, as they can lobby banks directly, or lobby the government to prevail on banks, to design such products. This will enable participants in the informal economy to address problems relating to their enterprises' financial needs. Additionally, the process involved with the design, and the access-requirements for the product can be made to facilitate other government's policy thrust for the informal enterprises.

Show that the enterprise is credible and viable: One of the problems of enterprises in the informal economy is their inability to show how viable their businesses are, as analysed in Section 8.2.5. This problem can be solved if they keep adequate records of their financial and business activities and link up with formal firms, as argued in Sections 8.2.5 and 8.5.3. In fact, their failures in this regard have proven very costly to both the participants in the informal economy and regulators of the Nigerian economy. Although the literature suggests that most enterprises choose to keep minimal or no quality accounts of their finances and business operations in order to avoid regulations and tax payment (see Chapter 2), it often comes at a huge cost, as participants are not able to secure relevant assistance, when the need arises. For example, enterprises which do not keep good accounts to show evidence of their viability are often not able to attract credit facilities from the bank (Section 8.2.5). In terms of opportunities, such enterprises will lag behind others with similar size and capabilities, and will also not be able to operate at large scale like others. Hence, these enterprises are not able to benefit from the latter's numerous advantages. However, keeping adequate books and accounts will enable informal enterprises to avoid these negative outcomes.

In addition, some informal entrepreneurs can show the credibility and viability of their enterprises by looking to address the negative employment conditions that characterise the informal economy, as explained in Section 8.2.3. Specifically, the former should provide their employees with written contracts, paid sick and maternity leave, some form of job-security, and disengagement allowances. I anticipate that all informal enterprises cannot afford this recommendation, going by the divergent levels of income earned from the sector by participants (Section 8.2.3). However, on the one hand, the majority which can afford it should take the initiative. On the other hand, those enterprises which cannot afford it should collaborate with their trade unions and relevant

government agencies to put similar measures in place. This act will not only show relevance and viability of the informal enterprise, it will also show to all stakeholders that the informal economy is credible, as it is not out to exploit its workers or/and economy. Additionally, acting this way will provide a strong basis for informal enterprises, or their representatives, to negotiate with the government in order that the challenges of regulatory burden, multiple levies, lack of government support, and inconsistent government policies (see Section 8.1) can be addressed.

Seek linkages with formal firms: Informal enterprises should seek linkages with formal firms, which would solve the former's problems of low income and poverty experienced by some of its participants, as shown in Chapter 4. Although there is evidence of both backward and forward linkages between the formal and informal economies in Nigeria, the level is currently very low (see Section 8.2.5, 8.5). This underscores the need for Nigerian informal enterprises to take up the challenge of linking-up more with the formal companies operating in Nigeria. This can only be good for the informal enterprises and the economy, as the former will not only earn higher income, they will also benefit from the machinery, financial, technical, and the managerial and expertise skills of the formal economy (see Chapter 4). Similarly, the benefit to the economy will be high, as linking-up with formal firms will facilitate the formalisation process for these enterprises (see Arimah, 2001, who has shown that the informal enterprises which benefit from forward linkages with formal firms are those which have been formally registered with CAC).

9.5.3 Recommendations for the state/government (S):

Substantially, most of the key recommendations are for the Nigerian government and policy makers. They range from the provision of sufficient jobs, finance, regulations, and training for participants in the informal economy, to creating an environment which makes it conducive for the private sector and businesses to excel.

Job provision & entrepreneurial development: The government of Nigeria can help address the problems of unemployment and survival, which are often quoted as some of the main reasons for engaging in the informal economy (see Section 8.3.1), by facilitating the provision of employment for those who need jobs. I have shown in previous sections that some individuals who operate in the informal economy are transitory (because there are currently limited alternative job opportunities), as they operate in the sector while engaging in active search for fulltime employment (see Section 8.5.2). These are job applicants (Section 8.2.3) and university graduates

(Section 8.5.1) who operate in the informal economy because they have not secured a formal sector job. Ensuring job availability for these categories of people will be of benefit to all.

Typically, it is the responsibility of the government to seek to ensure full employment of human and capital resources in the economy. The experience of the north central region of Nigeria, which has the least informal sector and highest proportion of government employees (Section 8.5.2), suggests that when there are formal jobs for people to take up, the informal economy contracts. My results also show that the regions, which have a higher proportion of highly educated participants, have the highest number of newly-established enterprises (Section 8.5.1). Two possibilities: this either confirms the argument that many informal enterprises have been set up to provide their proprietors with a means of survival (Section 8.5.1), or it attests to the presence of entrepreneurs in the Nigerian informal economy (Sections 8.5.2, 8.3.1). Arguably, participants in the former category will exit and the latter remain in the sector, if an environment which encourages participants to declare their status and access alternative choices of formal jobs is created. Potentially, this provides the opportunity needed for these entrepreneurs and their enterprises to blossom and grow to full maturity. Thus, the policy thrust should be how to encourage entrepreneurial development and provide jobs for participants in the informal economy.

Generally, the government can facilitate employment creation for the growing population of unemployed Nigerians in either of two ways. One such way is to engage in the direct provision of employment. This has a slim chance of succeeding, as government lacks the capacity to create massive jobs, and public sector jobs are often unproductive. An alternative solution is for the Nigerian government to create an environment conducive for the private sector to create quality jobs. Although this has often been the way chosen by successive Nigerian governments since the SAP era of the 1980s, they have not created an enabling environment for it to be successful. For example, reported in Section 8.2 as inhibitors of business operations in Nigeria are: inadequate infrastructures, insecurity, inadequate roads and electricity, and policy inconsistencies. The government of Nigeria should seek, and be committed, to addressing these. By so doing, quality jobs will be created in the economy.

Also, the government should be committed to fighting corruption (an evil which is eating up the fabric of Nigeria), scaling down the negative effects of bureaucracy and reversing the execution of projects that benefit only a few Nigerians. For example, Section 8.2.5

shows that some participants in the informal economy find it difficult to register their enterprises due to the bureaucratic nature of the process of registration and government institutions, and some participants are mishandled and harassed by corrupt government officials. Arguably, these government officials will prefer an imperfect system and a large number of unregistered informal participants in order for them to continue to collect bribes and levies that are not officially accounted for. However, the government should address these problems, if jobs are to be provided for Nigerians in order to reduce the size of the informal economy.

In fact, deliberate efforts must be made to tie every naira spent in Nigeria to job creation, contracts should be awarded to firms that are qualified and promise to create jobs, licenses to operate in the oil and gas sector should be given to firms that are qualified and are willing to create jobs, and the government annual budget planning and execution should be pinned to job creation. These are achievable if the government of Nigeria will take ethno-religious- and political-sentiments away from the decision making process, and make policies that are people-centred.

Additionally, it is appropriate to recall that also engaging in the informal economy are those with low educational qualifications, secondary school drop outs, and those without a formal education (see Section 8.5.1). Some of these claim they want their own businesses and autonomy (Section 8.3.1), hence their reasons for engaging in the informal economy. Also, it is shown in Sections 8.2 and 8.5 that some people participate in the informal economy by choice, and not because there are no jobs. These categories of participants will require a system which enables them to develop job-related and entrepreneurial skills in order to achieve gainful employment. Policies which encourage the setting up of apprenticeship systems and reforms in the education system would be of great help. Those with skills' gap can be trained, and those without a formal education can then be made to go through the apprenticeship system.

Use incentives to enforce policy thrust on quality of job: The problem with the informal economy has never been the inability to provide mass jobs, but it has been the inability to provide quality jobs, for individuals working in the sector (see Section 8.2.3). Government should leverage the huge employment opportunities in the informal economy by collaborating with trade unions and entrepreneurs in the sector to provide quality jobs. This can be done by providing incentives which enable employers in the informal economy to accept the responsibilities of meeting standard international labour practices, such as providing employment contracts and employment related holidays to

their employees. There should be sufficient commitment from policy makers to bridge the gap should any of the enterprises in the informal economy not have the capacity to continue to make such contributions at any time. Similarly, informal enterprises that cannot provide such quality jobs should be supported with tax breaks or other forms of incentives which will enable it keep up with the joneses. The on-going plan by Trustfund Pensions Plc and National Pension Commission to extend pension scheme to participants in the Nigerian informal economy (see Vanguard, 2 January, 2014) is an indication that my recommendations are achievable.

Provide financial assistance: While funding is germane for the success of an enterprise, inadequate access to finance/credit facility can be a constraint, and has been highlighted as one of the main problems of participants in the Nigerian informal economy (see Section 8.2.5). Specifically, as discussed in Section 8.5.3, informal participants in Nigeria have been funding their business activities through personal savings, as they are faced with the difficulties of securing bank facilities. The government can support these businesses by facilitating accessibility to finance. This can be in the form of budgetary allocations to the sector, which should be disbursed through a specialised financial institution. It makes economic sense for the government to make budgetary allocations to a sector, the informal economy, which provides over half of the country's annual GDP equivalent (see Sections 7.2, 7.3) and close to two-thirds of total employment (see Section 8.2). The budgetary allocation to the informal economy should be kept with a specialised financial institution or a special department of the apex bank, and used as a financing scheme for participants. The scheme's budget holder should be empowered to lend the money to participants at low interest rates (far below commercial banks' lending rates) and with minimum collateral requirements, provided the business activities are viable. Similarly, the body should be able to provide advisory support to businesses which seek financial support but are considered unviable.

In addition the government, through the apex bank, can encourage and support any scheme of commercial banks, which makes credit easily accessible to informal enterprises. This is often in the form of a designed product which reduces the credit criteria and complexities for the targeted clientele. What the apex bank can do in this regard is to guarantee such products or credits, in the event of default from those it is designed for. With these schemes in place, qualifying informal enterprises will not be denied access to finance because of their limited initial capital outlay. Also, it will provide access for the participants who need funds for expansion, but consider the commercial banks' lending rates too high. Additionally, by providing financial support through these

schemes, the government can initiate a system which facilitates the formalisation of these informal enterprises and participants.

Finally, creating awareness about a newly designed or an existing financial scheme for informal enterprises should be undertaken by the government, as most participants in the informal economy are often unaware even when such schemes/products are in place. In particular, relevant information can be disseminated through participants' trade unions. What this also suggests is the need for the government to support and encourage the formation of trade unions in the informal economy. This will not only help in disseminating financial information, it also can be very useful in communicating government's policy thrust to participants in the sector.

Provide training for participants in the informal economy: I have reported in this study that the Nigerian informal economy has a 65.4% participation rate (Section 8.2), contributes 52-53% equivalent of the official Nigerian GDP to the economy (Sections 7.2.2, 7.3) provides relatively cheap goods and services to the general public, promotes economic self-reliance and domestic production, skills acquisition and entrepreneurial development (Section 8.1). Arguably, the minimum expectation for the Nigerian government is to recognise, support, and leverage the opportunities in this sector to boost growth and employment in the economy. To do this, the government must provide training for informal participants to equip them with the skills required to fill the economic gap left behind by the failures of the formal economy. This is necessary as some participants in the informal economy who seek relevant technical, financial and managerial skills to better their business performance (see Appendix, Table A9) may not know how and where to go for such training. The government can be the facilitator of this training. For example, the government can facilitate training in accounts and bookkeeping for participants in the informal economy. By learning how to keep adequate books and accounts, informal participants will be able to provide evidence to affirm the viability of their businesses, which in turn, will enhance their chances of securing external funding for their business operations. Similarly, there should be training on how and where to obtain finance, which can bridge the regional information and skills-gaps, and enable participants in the informal economy from all regions to have equal chances of accessing bank credit and other financial facilities.

Also, it is important to ensure that entrepreneurs from all regions of the Nigerian informal economy are identified, encouraged and provided with the facilities and supports necessary to sharpen their skills, efficiency and productivity. This will enable

these entrepreneurs to develop their full potential. The education system should be reformed to suit what the nation needs for development. For example, training in entrepreneurship should be added to the curriculum of schools and higher institutions to enable those who have the innate skills to add on formal training. Additionally, the government of Nigeria can provide a special school for the formal training of informal participants, which is akin to what it did recently for nomadic cattle farmers in the Northern region of Nigeria, when it started to provide special schools for the latter, at their various settlements. In addition, policies which make primary and secondary school education compulsory for all citizens should be enforced. This will enable informal participants with little or no formal education (see Section 8.3.4) to acquire skills necessary for the optimum performance of their businesses. Finally, if an apprenticeship system is developed, as recommended in the previous section, participants in the informal economy who do not want to attend a university, will be able to receive the training that will enable them to fully hone their entrepreneurial skills.

Provide a conducive environment for the private sector: It was reported in Section 7.1.2 that tax rates have fallen, oil revenue has gone up, so has the currency in circulation and size of the informal economy in Nigeria. This is a paradox, as it contrasts with theory and existing evidence. In particular, a falling tax rate is expected to encourage individuals and firms to operate in the formal economy, hence initiate a contraction in the size of the informal economy. Similarly, rising government revenue is expected to bring about higher economic performance, higher quality living and more jobs created for the citizenry. Results from Section 7.2.2 confirm this, as a 1% rise in real GDP per capita brings about a 2.08% reduction in the size of the Nigerian informal economy.

However, it appears that most economic indicators have worked in the opposite direction in Nigeria, as they reflect policy failures, unhealthy business environment and failures in the political economy. Evidently, there is inflation that has dwarfed deposit interest rates and discouraged people from saving, high lending rates that do not encourage business borrowings, the challenge of government regulatory burden, lack of government support for businesses, and inconsistencies in government policies, as established in Sections 7.1 and 8.5. This has been exacerbated by unstable exchange rates regimes, uncontrolled trade-openness that has turned Nigerian economy into a dumping ground, and a high rate of population growth, as argued in Section 7.1.2. Also noted about Nigeria's economy are high levels of corruption among government officials, and high rates of unemployment across all age groups (see Section 8.3.4), negative effects of bureaucracy (see Section 8.4), the inability of government to facilitate production of manufactured

goods, and the non-creation of sufficient formal-sector jobs from the huge revenue the government has earned (Section 7.1.2). The list is by no means exhaustive, although one thing is clear, these factors combine to dampen private sector growth and investment in Nigeria. They also impede business activities in the informal economy, and discourage informal participants from formalising their enterprises.

The way forward is to address these challenges, and create an environment that enables the private sector to flourish. This can be done by formulating and implementing the right policies, which enhance healthy competition, reduce corruption, cut down the negative effects of bureaucracy, and enhance infrastructure development, security of lives and properties, and support for the private sector. Resources should be managed for the good of all Nigerians, and there must be sincerity of purpose among policy makers and the political class; only projects that are of benefit to the generality of the public must be executed. For example, by creating an environment that enables and encourages job creation in the private sector, the marginal operators in the informal economy will find a job, leave the sector and get more productive elsewhere. Then, only entrepreneurs will be left in the informal economy. For these to also achieve full potential, the right environment must be created. So, build shops/markets, provide trading spaces, and assist with credit and training to alleviate the operational impediments listed in Section 8.2.3.

Additionally, government should reduce regional and rural-urban migration, a strong factor which has triggered an expansion in the size of the Nigerian informal economy (see Section 8.5). In particular, the government should develop an efficient region to region and rural-urban transport system, which makes the mobility of goods and services across regions efficient, and reduces the need for both regional and rural-urban migration. Finally, the provision of infrastructure facilities and security across regions can lead to the creation of quality employment opportunities, hence, a reduction in unemployment, which is a key reason for engaging in the informal economy in Nigeria, as analysed in Section 8.3.3.

Encourage formal-informal linkages: While I have reported some level of formal-informal linkage in Nigeria (see Section 8.2), I also found that considerable regional differences exist (see Section 8.5.3). The government of Nigeria can introduce policies which encourage deliberate linkage of formal and informal firms. One way is to ensure that existing local content legislation, which requires companies operating in Nigeria to use a certain percentage of locally sourced materials in their production, is enforced. Similarly,

individuals and owners of enterprises in the informal economy can be enlightened or trained on the basic requirements for effective formal-informal linkage. Such policies will bring about a favourable linkage of the two sectors, which can be beneficial to the economy, government, and participants in the informal economy as analysed in Section 9.1.7 (also see Chapter 4). To restate, an un-skewed formal-informal linkage can lead to the exchange of resources, expertise, and technology between participants in the two sectors, increases in incomes and standard of living of informal participants, increases in income for the economy, and a boost for the use of local content, higher domestic production, and higher exports and foreign exchange earnings.

Register and regulate trade unions/professional bodies: It was established in Section 8.2.3 that close to two-thirds of participants in the informal economy in Nigeria are members of a trade union, and that professional advancement, technical training, and access to loans are some of the supports, which members receive from their unions. However, there are suggestions that government agencies do not favour the registration of trade unions formed by participants in the informal economy. For example, the federation of informal workers organisation of Nigeria (FIWON) claim they had been denied registration, though several attempts have been made to get the organisation registered. While the reason for this is unknown, I argue that the registration of trade unions will be good for the regulation of the informal economy, its participants, and the general economy. For example, by registering a trade union, policy makers will be able to identify which areas and nature of assistance is required to enhance the economic contributions of the informal economy. This will also provide a platform for the government to direct the correct policies to participants in the informal economy, as noted in the previous section. Additionally, registering trade unions will enable the government to effectively monitor the activities of the union and prevent members from being exploited.

Regulations which encourage compliance: The analysis in Section 8.2.3 tends to support the contemporary/realist theory, which argues that participants in the informal economy are a complex and heterogeneous group. This makes it necessary for policy makers to have reasonable knowledge about informal participants, as a case by case, rather than, a 'one-size-fits-all', treatment of the different categories of the latter is required. Such knowledge can be gained through research of this nature, participants' trade unions or through government persuasive policies. Support can then be given according to needs. For example, support should be given to individuals operating at the margin of poverty and low income, particularly those without good working conditions (see Section 8.2.3)

to enable them live above the poverty level. Conversely, the entrepreneurs/participants doing well in the informal economy can be encouraged and supported to observe standard labour practices for their employees. A persuasive-strategy or regulations that encourage disclosures would be appropriate.

Results in Section 8.2.4 reveals divided opinion on government regulation of businesses; while some think the informal economy is overregulated, others think it is under-regulated. Yet, the widely held belief in the literature is that the informal economy is difficult to regulate, since what makes economic activities informal is the fact that they elude official books/accounts. However, my assertion is that the puzzle of overregulation or regulatory-impossibility of the informal economy can be solved if the questions relating to the 'how' of regulations are answered. This is important, as the 'hows' of regulations can deter or encourage disclosure of informal economic activities. So, I recommend the persuasive-strategy or the type of regulations which, rather than punish, encourage participants. The starting point could be the definition, recognition and appreciation of the important contributions of the informal economy to the Nigerian economy. This is important, as many informal participants claim they were unhappy and unmotivated by the lack of care and recognition from the government and its officials, as explained in Section 8.2.5. In the same section it was shown that many participants have complained about the demolition of their business premises which are termed 'illegal structures' by the government. While it is true that the government has a right to implement policies which enforce original geographical plans, it is also its responsibility to provide alternative land and premises to informal participants before embarking on the demolition of their so called illegal structures. Additionally, it is the responsibility of government to regulate the activities of its agents/institutions which have been accused of overzealousness, corruption and multi-levying informal participants. By so doing, the government will be able to earn the trust of those engaged in the informal economy and the latter's willingness to comply with the former's persuasive regulatory strategy.

Conclusion

This chapter has provided further discussion of the results presented in the previous two chapters, to answer Research Questions I-V. Specifically, in answering Research Question I, I demonstrated that the informal economy impacts on official GDP growth in Nigeria in 9 ways. These are the economic activities undertaken by participants, employment creation, positive effects of the multiple locations of operation, poverty

reduction, income generation, participants' operational and financial autonomy, time invested by participants, formal-informal linkage, and GDP growth.

For Research Question II, I showed that the Nigerian informal economy displays complex and interesting characteristics. Participants were found to be indifferent to tax burden, which tends to have minimum influence over the informal economy in Nigeria. This contrasts with the theory and findings in the literature. Also, participants in the informal economy were largely male, married, middle-aged, highly educated who are largely transient, middle income earners, and traders. Conditions of jobs for some of the participants are not up to international labour standards. Additionally, enterprises in the informal economy are reported to grow during economic crisis, and are faced with such adverse conditions as inadequate finance, multiple levies and taxes, corruption of government officials, unsupportive government, and inconsistent government policies. However, participants who have membership, receive support from trade unions/professional bodies. Finally, regional differences were found in the size and income level of the Nigerian informal economy; the south-west and north-west regions have larger size and lower proportion of educated participants, whilst north-central participants earn higher income, than other regions.

In answering Research Question III, it was accentuated that the determinants of the Nigerian informal economy are not too different from the three key factors reported by previous studies: the country's overdependence-on and mismanagement of oil revenue, population explosion, and undesirable consequences of the SAP policy. Specifically, I found population growth, trade openness, real GDP per capita, tax burden, unemployment, autonomy, demographic factors (religion, age, marital status and level of education), corruption, survival, and time as the determinants of the Nigerian informal economy. These factors represent elements in the dualist, structuralist, legalist and voluntarist theories of the informal economy, although the biggest influence comes from population growth and survival factors. The lesson for other countries is that the determinants of the Nigerian informal economy are similar to those reported in the literature. However, variations exist in their strength, magnitude and effects, which suggests that country-specific studies are necessary.

Also, in answering Research Question IV, I demonstrated that a relationship exists between the informal economy and macroeconomic variables, and small businesses in Nigeria. Specifically, the informal economy was found to positively relate to poverty reduction, employment creation, economic growth, and the business cycle in Nigeria.

Finally, the informal economy is found to be inextricably linked to small businesses in Nigeria.

For Research Question V, my recommendations followed the IFS framework, but it is substantially skewed to the state. For the individual, I recommend that participants register with a trade union/professional body, and go for training and skills acquisition. In addition to these two, my recommendations for the firm are, special products for informal firms, credible and viable enterprises, and link-up with formal firms. Finally, my recommendations for the state are: job provision and entrepreneurial development, provision of financial assistance, provision of training, provision of environment conducive for private sector, encourage formal-informal linkage, register and regulate trade unions, regulations based on persuasion, and use of incentives to achieving policy thrust on the of quality jobs for the informal economy.

In the next chapter, I hope to summarise the main findings of this study, state the contribution to knowledge, and conclude this study.

Chapter Ten Conclusions

10.0 Introduction

In Chapter 9, I answered the research questions. The aim of this chapter is to present a summary of the major conclusions, areas for further study, restate recommendations, contributions to knowledge, and conclusion of the study.

10.1 Summary of main conclusions

I present in this section a summary of the main conclusions from each chapter of the thesis. In Chapter 2, I reviewed relevant theories on the origins of the informal economy. These theories are the dualist, structuralist, legalist, voluntarist, illegalist, and realist theories. The dualist and structuralist theories are of the view that two economies exist. However, the former argues that the two economies are distinct and unlinked, whilst the latter is of the view that the two economies are integrated and interlinked with each other. The legalist and voluntarist theories capture the reasons for engaging in the informal economy. While the legalist theory suggests that bureaucracy and government overregulation are the underpinning factors for firms participating in the informal economy, the voluntarist theory is of the view that participants in the informal economy are rational, make a cost-benefit analysis of the available options, and engage in the sector by choice. The thrust of the illegalist theory tends to be on illegal activities, and the experience of advanced economies. For its part, the realist theory integrates all aspects of the early debates, and argues that the informal economy is complex and heterogeneous, and requires more than one theory to capture all its inducing-factors. So, it contends that all theories are valid, but some are more applicable to a given setting, than others. This necessitates an individual country analysis to establish which theory (theories) is (are) more applicable in each case.

I studied the determinants of the informal economy in Chapter 3. The established determinants of the informal economy in the literature are government regulations, tax burden and evasion, social security burden, state of public services and weak institutions, entry barriers and uncommitted government, time allocation, socioeconomic and demographic factors. Other determinants discussed are foreign direct investment (FDI), informal entrepreneurship and microenterprises, structural adjustment programme (SAP), corruption, migration, globalisation, and demand for low-cost goods and services.

The impact of the informal economy was examined in a micro-macro dichotomy framework in Chapter 4. Under micro evidence, I discussed the neoclassical leisure-income model of microeconomic theory, features of the informal participants and economy, and informal entrepreneurship and microenterprises. For its part, the macro evidence involved the macroeconomic theory of endogenous growth model, and the relationship between the informal economy and the following: economic growth, employment, poverty reduction, and business cycle. Additionally, I discussed the relationship between the informal economy and the following: FDI, corruption, migration, and SAP, which do not follow the micro-macro divides.

In Chapter 5, I presented the current study's conceptual framework, the 4Cs and IFS-triangle frameworks. While the conceptual framework provides a visual summary of the link between the main concepts discussed in the chapters of the thesis, the 4Cs and IFS-triangle frameworks provide the link between the theories and impacts of, and the methods for studying, the informal economy. Specifically, the DLSV (dualist, legalist, survivalist and voluntarist theories) tend to emphasise some aspects of IFS (individuals, firms, and state) factors over others. It was also established that these propositions overlap, which provides plausible explanation for the lack of theory-specific methods for studying the informal economy. However, I argued that, although methods are not theory-specific, they are the underpinning intuitive factors considered when deciding what methods to be employed in the study of the informal economy, as the choice of a method can affect the attributes reported, and the theory thought to be applicable in an economy.

I analysed the underpinning methodological paradigm of this thesis in Chapter 6. As discussed there, the philosophical position of the thesis is *methodological triangulation*, particularly, a mid-way stance between *positivism*, *realism* and *interpretivism*. My position was influenced by the nature of information employed in the study. Specifically, I employed primary and secondary information, and some subjective traces of evidence in the study. I also analysed the various methods employed in this thesis for data collection and analysis. Additionally, I created from the total sample, a database for participants in the informal economy in Nigeria. This indicates that the participation rate in the Nigerian informal economy is 65.4%. Finally, I specified and discussed the currency and MIMIC-model techniques in this chapter.

In Chapter 7, I utilised secondary data and two approaches, the currency and MIMIC approaches, to compute the size of the Nigerian informal economy. The main findings from this chapter are highlighted below:

- The results from both approaches do not appear statistically different from each other, and they show that, on average, the Nigerian informal economy contributes an equivalent of 52-53% of official Nigerian GDP. They also show that both the formal and informal economies in Nigeria appear to rise and fall together.
- Variations in the informal economy can significantly impact the Nigerian economy. This is inferred from the graphed relationship between the informal economy and GDP, as well as the regression results, which established a long term relationship between currency holdings and the following variables: current GDP, CPI, average savings rate, bilateral exchange rate, oil prices, tax burden, and level of total unemployment. However, oil prices and unemployment were found to be statistically non-significant at the 5% level.
- The average deposit rate and tax burden variables assumed *posterior* signs which contradicted the *a priori* hypothesis. It was explained that the possible reason for the contrasting *ex-post* sign of the deposit rate is that Nigerians plausibly take savings rate decisions on the basis of prevailing inflation and lending rates. The former is often lower than the latter, hence, it discourages people from saving.
- For its part, the contrasting sign of the tax burden variable was pinned to three factors: the exogenous reduction in overall tax rates, the declining ratio for direct personal income tax revenue to direct total tax revenue, and the secondary-data effect (i.e., it, unlike collected surveys, does not capture the tax-related burdens suffered by individuals/firms carrying out business activities in Nigeria). I have argued that these factors, respectively, were plausibly elicited by the increased contribution of oil revenues to the government's total revenues, the increasing level of unemployment since the 1980s following the SAP, and the harsh business environment (e.g., multi-taxes/levies, high operating-cost, high level of corruption and inconsistent government policies).
- In applying the MIMIC technique, I employed a novel approach by using three base years as benchmarks, to estimate the size of the informal economy in Nigeria.

- Results from the MIMIC model show that the size of the Nigerian informal economy is determined by: population growth, trade openness and real GDP per capita.
- A 1% rise in population and trade openness, respectively, leads to 2.43% and 0.162% expansions in the size of the Nigerian informal economy. Conversely, a 1% rise in real GDP per capita will bring about a 2.08% reduction in the size of the Nigerian informal economy.
- The computed yearly size of the informal economy depicts a rising trend over time. The results also show that the informal economy has grown faster than official GDP in some years. Finally, I also found a procyclical relationship between the formal and informal economies in Nigeria.

Analysed in Chapter 8 are the role, features, determinants, and regional prevalence of the Nigerian informal economy, using primary, cross-sectional, survey data. The main findings from this chapter are summarised below:

- The informal economy provides economic benefits to its participants, members of the public, and the government. It provides cheap and easily accessible goods and services to members of the public, jobs and income for participants and enables them to live above the poverty line, and provide income generation for the government and help it to achieve the macroeconomic policy target of poverty reduction. Additionally, the two-thirds of participants who believed that the Nigerian informal economy provides employment for over 60% of the country's labour force, provide corroborating evidence of the informal economy's participation rate in Nigeria, of 65.4%.
- The Nigerian informal economy is characterised by relatively older people, more married individuals, some highly educated and middle income Nigerians. Further, evidence suggests that participants in the Nigerian informal economy are a heterogeneous group, as these individuals cut across different age groups, income levels, disciplines, and educational qualifications. While about 28% of participants earn wages below the minimum wage, 72% of participants use the informal economy's platform to earn wages which are higher than the minimum wage, hence enabling them to live above poverty line. Also, the sector provides job for a large number of people, but some of the jobs are of low quality and lack basic social protections. Additionally, the characteristics of the enterprises in the Nigerian informal economy reveal that more enterprises are established during periods of

economic crisis in Nigeria. Finally, results also suggest that many entrepreneurs operate in the Nigerian informal economy.

- Results of the informal economy's determinants reveal that unemployment, the need to survive, the desire to be autonomous, and time spent on main job, are some of the factors which influence the size of the Nigerian informal economy. Also, the Nigerian informal economy is influenced by such demographic factors as: religion, age, marital status and level of education. In contrast to results reported in the literature, the sex of participants does not appear to be a statistically important factor in Nigeria's informal economy.
- I built a MIMIC model to further confirm the determinants of the Nigerian informal economy. The model shows that corruption, unemployment, time spent on main employment, and the need for autonomy, less tax, and need for survival are the determinants of the Nigerian informal economy. Overall, the Nigerian informal economy has some elements of the dualist, structuralist, legalist, and voluntarist theories. However, the greatest influence comes from population growth, survival and corruption.
- Results of the regional analysis show differences in participants' age and levels of education, but no pronounced regional differences were found in their savings pattern, income level, and the age at which participants stopped formal education. Also found were differences in the regional size of the informal economy, as the north-west (NW) and south-west (SW) regions tend to have the highest proportion of self-employed, and the largest informal economy in Nigeria. Conversely, the north-central (NC), south-south (SS) and south-east (SE) regions, respectively, have the first, second and third least informal economies. Similarly, the highest proportion of participants in the NC and SS work 8-9 hours daily, and are engaged in the informal economy to survive. In fact, most of the individuals who engage in the informal economy from the NC region are transitory-informal participants. For their part, the highest proportion of participants in the SW and NW work over 10 hours daily, and are engaged in the informal economy to become their own-boss and are arguably more entrepreneurial.

In Chapter 9, I presented a further analysis of the results discussed in Chapters 7 & 8. This enabled me to answer Research Questions I-V, as summarised below:

- To answer Research Question I, nine ways in which the informal economy impacts official GDP growth in Nigeria were accentuated. Specifically, I asserted that the informal economy impacts official GDP growth in Nigeria through: the economic activities undertaken by participants, employment creation, positive effects of the multiple locations of operation, poverty reduction, income generation, participants' operational and financial autonomy, time invested by participants, formal-informal linkages, and GDP growth.
- In answering Research Question II, I argued that the Nigerian informal economy displayed complex and heterogeneous characteristics. Informal participants were found to be indifferent to tax burden; while secondary data suggests that tax burden has minimum influence over participants in the Nigerian informal economy, primary data and evidence from the existing literature paints a different picture, i.e., a strong influence of the former over the latter. Conversely, informal participants' responses to savings rates appear to be based on the relative prevailing inflation and lending rates. Additionally, the Nigerian informal economy was reported to be dominated by male (though statistically non-significant), married, middle-aged, highly educated (most of whom are transient), middle income, and trading-type (some highly skilled professionals and consultants were also found) participants. Some of the participants were reported to have jobs that do not meet international labour standards, and informal entrepreneurs are faced with many constraints which limit their operations. However, participants belonging to unions/professional bodies had some of these constraints mitigated. Also, analysis showed that informal enterprises grow during periods of economic crisis, and are faced with such adverse conditions as inadequate finance, multiple levies and taxes, high risk and competition, job insecurity, poverty, corruption of government officials, unsupportive government, and inconsistent government policies. Characteristics of the informal economy in the regions of Nigeria were also discussed.
- For Research Question III, it was established that the determinants of the Nigerian informal economy are similar to the three key factors reported by previous studies: the country's overdependence-on and mismanagement of oil revenue, population explosion, and undesirable consequences of the SAP policy. To reiterate, I found population growth, trade openness and real GDP per capita as determinants of the Nigerian informal economy using the MIMIC method and secondary data. For its part, the collected primary data and MIMIC approach shows that unemployment, autonomy, corruption, tax avoidance, survival, time and demographic factors are the

determinants of the informal economy in Nigeria. Finally, I argued that the lesson other countries can learn from my results is that the Nigerian informal economy is influenced by factors that have been largely reported in the literature, although variations exist in their strength, magnitude and effects. This implies that country-specific study is necessary.

- To answer Research Question IV, I argued that the informal economy is related to both macroeconomic variables and small businesses in Nigeria. Particularly, my results confirmed a positive relationship between the informal economy and the following macroeconomic indicators: poverty reduction, employment creation, economic growth, and the business cycle in Nigeria. Also, the informal economy is found to be inextricably linked to small businesses in Nigeria.
- To answer Research Question V, I provided recommendations in Chapter 9, which are not repeated here, but presented in the recommendation section below.

10.2 Critical evaluation

Research is undertaken in a dynamic world and under unpredictable circumstances. This is especially so when analysing the informal economy, something that is not clearly visible to the researcher as it is not officially recorded. So, the outcome of research does not always converge to the objectives it sets out to achieve, as the research methods and methodology, theoretical framework, research instruments, data, and/or the assumptions employed in the study, can impose limitations on the process and outcome of the study. Limitations on the process and outcome of research can also come from the nature of, and the concept being investigated. The latter is particularly true for the informal economy. To successfully carry out a study, assumptions have to be made, traces left behind by participants have to be used, and primary data have to be collected. Thus, the assumptions and defined processes that can affect the veracity of the findings of a research need to be identified.

One such assumption in this study is that made in the currency approach. As set out in Section 6.5.1, the currency approach assumes that currency is the only instrument used in carrying out transactions in the informal economy. This has been critiqued in that section. For example, it was argued that other factors determine currency holdings, and activities in the informal economy can now be carried out without cash and even with the aid of bank instruments. Another assumption of the currency approach is that money has

the same velocity in both the formal and informal economy, as explained and critiqued in Section 6.5.1. This assumption is central to one of the methods I employed in computing the size of the informal economy under the currency approach, as I assumed that the velocity of transaction was constant. This can affect my results significantly if that assumption does not hold. Particularly, as shown in Table 7.1, the average size of the informal economy with a varying-yearly and constant velocity of circulation, respectively, are 36% and 52% of GDP. The latter enabled me to assert in Section 7.3 that the currency and MIMIC methods produce close results. However, this argument becomes invalid if the underlying assumption ceases to hold.

Similarly, I have noted in Chapters 7 and 9 that, considering the challenges accompanying the currency approach's estimates, discussions based on them should be read with caution. For example, it was explained that the results computed from the currency approach were unstable and did not allow the completion of the necessary diagnostic tests (e.g., multicollinearity test). This, as argued, is largely due to (secondary) data insufficiency, non-availability, and unreliability, which I have not had control over. Hence, following Gujarati (2011) the results have been accepted as they stand.

Also, the MIMIC method is arguably robust, as claimed in Section 6.1. However, the process of selecting the benchmark-size of the informal economy is crude, and can potentially affect the output from this approach. By using an average of two benchmarks, and an average of three different computed sizes of the informal economy (see Section 7.2), I was able to produce results that can reasonably mitigate this shortcoming.

In studying the informal economy of Nigeria, I administered questionnaires to collect primary data from participants, as explained in Section 6.4. However, there are debates about the best way to collect data on the informal economy. These are clearly explained in Section 6.2. In fact, one such argument is that the interview/unstructured data gathering methods can generate a higher quality and more in-depth data than the structured questionnaire for studies on the informal economy. However, I agree with Wagner and Okeke's (2009) observation that no method is superior to another, at least, in absolute terms. This is particularly true for the informal economy where no single approach for studying the informal economy is free from criticism (see Schneider and Enste, 2000; Dell'Anno and Halicioglu, 2010), as each approach tends to measure an aspect of the informal economy (Valentina and Silvia, 2011). Thus, the method

employed for a given project is a function of how useful it is in answering the questions raised by the research, and the objectives the research sets out to achieve (see Wagner and Okeke, 2009).

Part of my research objective was to explore the key determinants, characteristics and regional prevalence of the Nigerian informal economy. These cannot be achieved through the interview-methods of data gathering, rather, a research instrument that can cover as many people as possible, across various regions is more ideal for use, considering such constraints as time, cost, security challenges in some part of Nigeria, and the size of Nigeria. In fact, the best way to achieve my research objectives was through the use of a research instrument that allowed me to give or post my questions to participants, who then completed and returned back to me. The use of a structured questionnaire made this possible. Additionally, as discussed in Section 6.4.2 the research questionnaire was designed to accommodate most of the questions that could have been asked in a one-to-one interview. In particular, I asked some open-ended questions, which enabled me to obtain some very rich and unprompted information/data. By employing the structured questionnaire methods, I was able to achieve my objective of collecting quantitative data across the regions of Nigeria.

However, the process for collecting the surveys is far from perfect; hence the accompanying analysis should be read with this in mind. In particular, I have shown in Chapters 6 and 8 that due to the security challenges in parts of Nigeria, cost and time constraints, and low responses from FIWON participants, surveys were collected from different locations across the majority, but not all, regions of Nigeria. This, as explained, possibly introduced geographical and non-representativeness biases to my sample. Although weighting could possibly have removed such biases, this was not conducted due to the arbitrariness weighting itself could possibly have introduced to the sample. On the other hand, I have also argued that these biases possibly did not materialise, since different people come to the different locations from which surveys were collected, helping to improve the representativeness of the sample thus obtained.

Generally, a common constraint to the use of questionnaire is the usual low response rate. My experience in this study was not different, as I received 641 of the administered questionnaires back, a sample that covers 5 of the 6 regions, and 23 of the 36 states, in Nigeria. (The sixth region was excluded from the study due to the security challenges and threat to life in that part of Nigeria). While 641 samples appear ideal for a quantitative study, it is relatively low considering the population of Nigeria, which by end

of 2012 is 168.8 million (see World Bank, 2013). However, on technical grounds, my sample, though relatively small, fairly represents the population of Nigeria, as my results compare favourably with those reported from previous studies on some cities in Nigeria (e.g., Arimah, 2001; Meagher and Yunusa, 1996; Akande and Akerele, 2008; Fapohunda, 1981; Mabogunje and Filani, 1981), and with those reported in the expanse literature (see Chapter 4).

Finally, the task of arriving at a theoretical framework for this study was not the easiest of tasks, as some of the concepts relating to the informal economy in the literature are hazy. As explained in Chapter 2, Section 2.1 for instance, the concept of survival appears to be treated as a theory of its own, and at the same time, it is discussed across all the theories of the informal economy in the literature. To bring clarity to the concept, I discussed it under the dualist theory. Similarly, I brought clarity to the concept of subordination by discussing it under the structuralist theory (see Section 2.2). What I found in the literature is the subordination concept, which is neither clearly classified as a dualist nor structuralist concept. Also, it is not at all clear in the literature how the theories of the informal economy link up with the methods and methodology for studying it. However, through a thorough review and reclassifying of concepts in the literature, I was able to design novel theoretical frameworks for this study, the IFS and 4Cs frameworks. Using these I was able to link theory and methods to the rest of the thesis.

10.3 Areas for further research

While important findings have emerged from this study, it would be hyperbolic to think that a single study can answer all the questions on the Nigerian informal economy. The study might have achieved its objectives of providing insights to the characteristics, determinants, and regional prevalence of the Nigerian informal economy, as well as the relationship between the informal economy and key macroeconomic variables/small businesses in Nigeria, but there are areas not covered which future studies can explore, as the informal economy is complex and heterogeneous. Future studies can also consider the use of a different set of data, to confirm results reported in this study.

One area I have not covered in this study is the distinction between rural and urban participants in the Nigerian informal economy. Future research can investigate the differences (if any) in characteristics and determining factors between rural and urban participants in Nigeria's informal economy. Also, I reported in Section 8.3.4 that religion is one of the determinants of the size of, and type of businesses undertaken by

participants in, the Nigerian informal economy, but I did not consider if this factor is more applicable to the Muslim or Christian population. Additionally, I neither find out why religion is an important causal factor, nor investigate the factors driving a particular religion that are not present in the other religion. These are areas that can be investigated in future research. It was also shown in Section 8.3.4 that overwhelming proportion (79.6%) of participants were Christians; will a more balanced sample show the same results as reported in this study? This can be a question for future research.

Other questions that have emerged from the regional results are: Why are north-central participants more successful in acquiring bank facilities than participants from other regions? Is the increase in the number of newly started enterprises in the regions with highly-educated participants due to survival/transitory factors, or is attitudinal change responsible? Why are there little or no formal-informal linkages in the north-west region? Are migrations and mega-city factors responsible for the low-level of education for participants in the south-west and north-west regions? Providing answers to these questions can be the focus of future research.

Finally, in Section 7.3 I argued that the currency and MIMIC approaches produced close results. Future studies may want to confirm this assertion. The critical question is: under what conditions/assumptions will the two approaches converge? An answer to this question can be useful in arriving at a consensus approach for studying the informal economy.

10.4 Recommendations

In answering Research Question V, I gave extensive recommendations in Section 9.5. The points discussed there are now summarised using the individual, firm and state (IFS) framework.

Individuals (I): I recommend that participants in the informal economy register with a trade union/professional body, as this will enable them receive financial, managerial, technical, and relevant information support that unions give to their members. I also recommend that participants in the informal economy seek training and skills acquisition. This will enable them to perform better, and equip themselves with the skills needed to access relevant facilities.

Firm (F): proprietors of informal enterprises are also encouraged to register with a trade union/professional body, and endeavour to acquire skills and training for same reasons as above. In addition, I recommend that special financial products, which put the peculiarity of informal firms into consideration, be developed. This will enable informal enterprises to access the funds needed for expansion, without having to undergo complicated loan processes, pay high interest rates, or provide collateral securities they cannot afford. I also recommend that informal firms endeavour to be credible and show evidence of viability. This they can do by keeping adequate records, providing quality jobs when able, and working closely with unions and relevant institutions to ensure credibility of the sector. Finally, I recommend that informal enterprises link up with formal firms. This will increase their income, and grant them access to managerial and financial expertise, and technical support from formal firms.

Government (S): the bulk of the recommendations are directed at the government. In fact, the extent to which some of the individuals and the firms' recommendations are achieved depends on what the government does. Considering that the informal economy in Nigeria is large and important, as it contributes 52-53% of GDP equivalent, has 65.4% participation rate, provides employment for over 60% of the labour force, provides the platform for over 72% of participants in the informal economy to earn wages in excess of the minimum wage, I recommend the following:

Provision of jobs and entrepreneurial development: the state should engage in policies and programmes which actively create jobs and enhance entrepreneurial development. To do this, the government is asked to create an enabling environment for the private sector to thrive and create jobs; direct every naira spent to job creation; give contracts, and issue oil and gas licenses, to qualified-firms willing to create jobs.

Use of incentives to achieving a policy thrust on quality jobs: numerous jobs are created in the informal economy, but most of the jobs do not meet international labour standards. The government can use various incentives to encourage able-employers in the informal economy to provide quality jobs.

Provision of training: the government is advised to facilitate the provision of training to participants in the informal economy. Informal participants who are in need of training should have a place to turn to. Those without formal education can be made to undergo formal training through provision of special schools, akin to what is provided already for nomadic farmers. Policies on minimum levels of education should be enforced. An

apprenticeship system should be explored to hone the skills of those who do not want to progress to university after college.

Provision of financial assistance: the government should facilitate the provision of finance to participants in the informal economy, to alleviate one of the biggest challenges confronting the latter. The government can do this by making budgetary allocations to the informal economy and setting up special funds for the informal economy. The government can also support, through the apex bank, the design of financial products that meet the peculiar needs of participants in the informal sector.

Provision of an environment conducive for the private sector: this is very important, as it underpins the success of most of the recommendations. The political, social, business and macroeconomic environments should facilitate private sector growth. Insecurity and corruption should be checked; roads, electricity, business premises and markets should be provided. Government policies should be consistent, and stimulate the economy.

Encourage formal-informal linkage: considering the benefits accruable to the participants, government and the general economy of the linkages between the formal and informal economy, government should encourage formal-informal linkages by enforcing existing local-content policies.

Register and regulate trade unions: government should encourage participants in the informal economy to form associations/unions. These associations should be registered and regulated, as they can serve as the channel through which the government implements its policy thrust for the informal economy.

Regulations which encourage disclosure: the government can regulate the activities of participants in the informal economy through persuasion rather than coercion.

10.5 Contribution to knowledge

This study contributes to knowledge by addressing a huge gap in the literature, using a combination of recent primary and time series secondary data, with sophisticated and modern econometrics, in a quantitative study of the Nigerian informal economy. Every chapter of the study demonstrates originality and a coherent structure for the aim of the thesis. The literature chapters establish the origin, determinants and empirical evidence of the informal economy. This paved way for the theoretical framework, methods and methodology, and results analysis chapters. Finally, the results from this study enabled

me to make important recommendations, and they follow my defined IFS structure. Specifically, my thesis contribution to knowledge is summarised as follows:

Contribution to Theory: I developed the 4Cs and the IFS frameworks to summarise the all-important links between literature, methods/methodology, results and recommendations (see, in particular, Chapter 5, Figures 5.2, 5.3 and 5.4). These novel frameworks extend the existing literature on the informal economy. While the 4Cs depicts the main theories of the informal economy and their role in a chosen method of study, the IFS shows the effects of, and those affected by, the informal economy. Finally, by employing the 4Cs and IFS frameworks, I posited that any study on the informal economy that will have impact will have to employ information from the three stakeholders in the economy: the individual (I), the firm (F) and the state (S).

Contribution to Methods and Methodology: By employing mixed methods (i.e., primary and secondary data, as well as the currency and MIMIC techniques) to study the Nigerian informal economy, my thesis adds significantly to the existing literature where, typically, only single methods of estimation have been employed. Additionally, I have also demonstrated that the 4Cs and IFS frameworks can prove highly informative in deciding the methods/methodology to be employed in studying the informal economy of any given country. Thus, analytically, my thesis adds to the literature by going beyond the case study of Nigeria, to contributing to theoretical as well as empirical debates.

Contribution to Nigeria: In addition to extending the overall literature on, and the methods for studying, the Nigerian informal economy, I have also computed the size of the Nigerian informal economy in this study. Evidently, the informal economy is complex and heterogeneous. Yet, previous studies on the Nigerian informal economy are mostly theoretical, and the few empirical studies have considered just an aspect of the informal economy. For example, Arimah (2001) investigated the formal-informal linkages of enterprises, Meagher and Yunusa (1996) studied the SAP and urban informal sector, Duru (2012) examined the opportunities for self-employment and income generation in the informal sector, Ademola and Anyankora (2012) explored the challenges of informal sector activities', Meagher (2011) studied urban governance and the informal economy, Fapohunda (2012) investigated the informal sector and women, and Akande and Akerele (2008) investigated the potentials of the informal economy in generating employment, in Nigeria. Additionally, with the exception of Arimah (2001) and Akande and Akerele (2008), which used data that cover at least six states in Nigeria, the other studies concentrate on either a local council area or just a single state. These gaps necessitated

the launching of an empirical study that has sought to show as complete a picture as possible of the Nigerian informal economy, as delivered with this thesis.

Finally, my thesis has a broader focus than existing studies on Nigeria, as it analyses the characteristics and determinants of the Nigerian informal economy, in total and by region, in an unprecedented manner, using multiple estimation techniques.

My objectives of investigating the Nigerian informal economy's key determinants, regional prevalence, features, and its relationships with macroeconomic variables, and small businesses are achieved in an unprecedented manner in this study. The thesis is unique in scope and procedures, as it combines robust analytical tools with current-primary and secondary data, an in-depth literature review and classification of theory and concepts in a novel way. Specific details of these important contributions are presented in Chapters 7-9, and summarised in Section 10.3. Overall, the contribution to knowledge of this thesis is in the novelty, especially the designing and application of a new theoretical framework, with mixed estimation techniques.

Conclusion

This research has explored a regional analysis of the informal economy of Nigeria, and put forward findings which would be applicable in studies related to other developing economies. A substantive literature review to clarify and properly classify the theories of the informal economy, methods and methodology were performed. The development of the 4Cs and IFS-triangle frameworks were the outcome of that process. Based on methodological triangulation, and employing the currency and MIMIC techniques, as well as primary and secondary data, I was able to accomplish an econometric study of the informal economy using SPSS, SPSS-AMOS and EViews software.

I found that the informal economy is large and essential to the Nigerian economy, as it provides jobs, income, reduces poverty, enhances growth and distribution, and enables the government to meet some of its macroeconomic goals. Additionally, regional differences were reported in the income, level of education, and prevalence of the informal economy. For example, the north-west and south-west regions were found to have the largest informal economy in Nigeria. However, it was found that the informal economy is hindered by such factors as corruption, insecurity, unhealthy business environment, inconsistent government policies, inadequate finance, and inadequate infrastructures.

While I encourage individuals and firms in the informal economy to take up membership of a trade union(s), and to build up skills, the bulk of my recommendations are directed to the government. In particular, I recommend the creation of an enabling environment for the private sector to thrive, and the implementation of deliberate policies targeted at jobs creation and entrepreneurial development. I also recommend support in financing and training of informal participants. Finally, I recommend policies which encourage registration and regulation of trade unions, disclosure by persuasion, and formal-informal linkages.

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Appendices

Table A6.1: Research questionnaire

PhD Research on "The Informal Economy in Nigeria: A Regional Analysis". Research's Questionnaire.

YOUR CODE NUMBER: To ensure your anonymity we do NOT ask for your name but encourage you to choose for yourself a CODE number. Please keep a record of it as part of your right to withdraw. In addition, kindly answer the questions that follow truthfully as nobody will be able to identify you in any way from your answers.

SECTION A: FOR ALL RESPONDENTS

1	Age	
2	Sex	
3	Marital Status	
4	State of origin	
5	Religion	
6	The State you reside, work or do business	
7	Number of people (you inclusive) in the house you live	
8	Number of people depending on you	
9	Please write what you do as your main job/business	
10	State what you do as second job/business (if applicable)	
11	Why do you have a second job/activity? (if applicable)	
12	State your total naira-income per month	
13	How much naira-money do you save a month?	
14	What is your level of education?	
15	The age you stopped schooling	
16	How many relations do you have abroad?	
17	In how many branches/locations do you carry out your work or business	

Q18. Please indicate the number of children you have, their age and level of education in the table below (if you have child(ren) of your own, and if no child → go to 19)

No of Child(ren)	Age	Level of education
		0-4

Please tick **Yes or No** for each of **questions 19-29**

		Yes	No
19	Do you live in your own-house?		
20	Do you reside in the urban area?		
21	Have you ever received money from relations abroad?		
22	Do you have a job, business, or engage in any form of activity that gives you any form of income, profit or family gain?		
23	Do you work full time or run your business full time?		
24	Is your job or business activity seasonal		
25	Do you belong to a professional body or labour union in your work place or domain of business?		
26	Do you have a second job, business or field of work?		
27	Apart from main activity do you perform any other activity at your		

	work/business location?		
28	Have you received any training on doing this job/running this business?		
29	Have you ever worked (or currently work) in the public service?		

Q30 How often do you get money from relations/friends abroad?
 Never[] Weekly[] Twice a month[] Monthly[] Quarterly[] Twice a year[]

Q31. How often do you get income or salary or money from your work/business?
 Daily[] Weekly[] Twice a month[] Monthly[] Every three months[] Twice a year[] Anytime activity/job is done[] Never[]

Q32. What proportion of your total income is earned from your main job/activity?
 All my income[] more than half[] about half[] less than half[] none[]

Q33 How would you categorise your main business/place of work?
 Family/Individual ownership[] registered cooperative[] ordinary partnership[] limited liability company[] joint stock company[] Other, specify.....

Q34 Which type of location do you usually carry out your work or business? **(Tick one pls.)**
 Employer's home (no location)[] employer's home (particular location)[] factory/office/workshop/shop/kiosk[] client's home/workplace[] construction site[] market/bazaar stall[] street stall[] footpath/street corner[] No fixed location[] mobile-Car/bus[] farm or agricultural plot[] colleague's home[] own home[]

Q35 For which type of these does your union/professional body help you? **(Tick one pls.)**
 Technical training[] organisational/financial management training[] access to loans[] access to market information[] assistance in obtaining supplies[] access to modern machines[] access to large business order[] linkages with government[] litigation with competitors[] security problems[] interactions with employees[] professional advancement[] not applicable[].

Q36 How would you rate your level of income and standard of living?
 Low income[] Middle income[] High income[]

Special Note:

→ When I say rank your options, I mean you should please indicate the order of importance of the options you have taken, starting from one (1) as the most important/strongest

Q37 Why do you work part-time? Go to Q38 if not applicable **(Please rank the options 1, 2, 3... if you are taking more than one)**
 Unwilling to take full-time work[] unable to take a full-time work[] unable to find a full-time work[] because of the employer's initiative[] depends on the nature of the job, seasonality[] for extra income[]

Q38 How many people (including yourself) work at your business enterprise/work place, in the informal sector? (You may **skip to Q39 if you do not know**)
 Less than 5[] 5-9[] 10-19[] 20-49[] 50 or more[]

Q38.1 Could you give the exact number and status of employment in the table below?

How many?	Full-time		Part-time		Total
	Male	Female	Male	Female	

Owner					
Contributing family workers					
Employees					
Apprentice					

Q39 Out of ten people, how many do you think work in the informal sector in your area/state?

10[] 9[] 8[] 7[] 6[] 5[] 4[] 3[] 2[] 1[] 0[]

Q40 Please tick the one that best describes your employment status (if applicable):

I am self-employed and work for government[] I work for private company and government[] I am self-employed and work for private company[]

Please find the key to the table below: **SA = strongly agree; A = agree; N = neither agree nor disagree; D = disagree; SD = strongly disagree.**

		SA	A	N	D	SD
41	People are poor because they work or do business in the informal sector as participants are disadvantaged					
42	Informal sector helps people that are poor to overcome poverty in Nigeria					
43	If government can provide job for every Nigerian, nobody would participate in informal activities					
44	Informal sector activities are good for Nigeria's economy					
45	Government does not have sufficient revenue because informal workers do not pay tax					
46	Government should discourage the informal sector as it is harmful to the Nigerian economy					
47	Formal (government and big company) workers' pay too high income tax					
48	Government regulations of businesses is too much					
49	It is very difficult to do business in the informal sector without giving bribe to some-law enforcement agents					
50	It is very risky if tax authority finds out that you do not pay tax					

Q51 Why do you work/run business in the informal sector? **(Please rank the options 1, 2, 3... if you are taking more than one).**

No other job[] Want own business[] Difficult to register formal business[] Need to survive[] Don't like paying tax[] Not costly to start/operate[] Little or no government regulation[] Easy entrance[] High profit[] Extra income[] To meet an identified need[] Other, specify.....

Q52 Please rank the reason people participate in the informal sector using the following options. **Rank from 1 to 9**, with 1=1st, that is, rank 1 as the strongest and 9 weakest:

No other job[] want own business[] difficult to register business[] less tax[] need to survive[] less costly[] less regulation[] easy entrance[] more profitable[]

53	On a daily average, how much time (in hours) do you spend on your main job/business?	
54	Please give the name of your trade union/professional body	
55	Which government agency or agents disturb your work/business in the informal sector?	
56	On a monthly average, how much in naira do you give to such agents in order to be allowed to work or do business	

	in the informal sector?	
57	Please write two important contributions you think your business or work in the informal sector makes to the Nigerian economy	1..... 2.....
58	Out of ten people, how many do you think work in the informal sector in Nigeria?	
59	What kind of training or skills would you require to improve on your job or business skills?	

→IF YOU ARE AN EMPLOYEE (WORK FOR SOMEONE, GOVERNMENT OR COMPANY) PLEASE GO TO SECTION B.

→IF YOU OWN/RUN YOUR BUSINESS, OR/AND ARE AN EMPLOYER, PLEASE GO TO SECTION C

SECTION B: FOR WORKERS/EMPLOYEES ONLY

QB1. How long have you worked for your current employer? Please specify.....

QB2. Who is your employer?

Federal gov't[] State gov't[] Local gov't[] Company[] NGO/not for profit org./association[] owner/one-man business[] family business[]

QB3. Who pays your wages/salaries?

Employer[] labour broker[] contractor[] agency[] other, specify.....

		Yes	No
B4	Are you employed on the basis of a written contract or agreement?		
B5	Does your employer pay contributions to the pension funds for you?		
B6	Do you benefit from paid annual leave or from compensation instead of it?		
B7	In case of incapacity to work due to health reasons, would you benefit from paid or sick leave?		
B8	In case of birth of a child, would you be given the opportunity to benefit from maternity leave?		
B9	Unless it is a fault of yours, could you be dismissed by your employer without advance notice?		
B10	In case of dismissal, would you receive the benefits and compensation specified in the labour legislation?		

QB11. What is the mode of payment of your wage/salary?

Daily[] Weekly[] monthly[] anytime you work[].

SECTION C: FOR OWN-ACCOUNT/BUSINESS OWNERS OR/AND EMPLOYERS ONLY

QC1. What year was the enterprise established?

QC2. Why have you chosen this business activity? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Family tradition[] the profession I know[] gives better income/higher profit[] gives more stable income[] religious reasons[] cultural reasons[] other, specify.....

QC3. Is your business registered with any of the following? (**Tick all that apply**)

Corporate affairs commission (CAC) [] Tax agency [] local gov't [] social security agency [] professional groups [] other regulations established by national legislative body []

QC4. What was the source of your start-up capital? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Personal savings [] help from parents/relations/friends [] set-up by master [] credit from relations/friends [] bank loan [] others, specify.....

QC5. From whom do you buy your goods/stock/raw materials? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Family members/relations [] friends/neighbours [] Informal firms/individuals [] Formal firms/companies [] formal firms representatives []

QC6. To whom do you sell your goods/products? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Family members/relations [] friends/neighbours [] Informal firms/individuals [] Formal firms/companies [] formal firms representative []

		Yes	No.
C7	Do you have a bank account in the name of your business?		
C8	Have you ever applied for credit facility/loan from a bank for your business?		
C9	Was your loan request from bank granted?		
C10	Other than bank services, do you know of any microfinance services?		
C11	Have you applied for loan from the microfinance sources? (if No, skip to C13)		
C12	Was your loan request from microfinance institution granted?		
C13	Do you think your business enterprise is profitable?		

QC14. What type of bookkeeping and account do you maintain?

No written records [] informal records for personal use, e.g., receipts, cash books [] simple records for tax payment [] detailed formal accounts []

QC15. If you did not get loan from bank, what was the reason your loan request was rejected? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Incomplete documents [] complete but not convincing documents [] insufficient guarantee/collateral [] insufficient initial capital [] activity/enterprise was deemed unviable []

QC16. If you have not applied for a bank loan what is (are) your reason(s)? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Amount of loan is insufficient [] Procedures are too complicated [] interest rates are too high [] maturity period too short [] guarantee/collateral asked for is too much [] did not need it [] I do not believe in paying interest []

QC17. Why were you not given microfinance loan? Please specify (if applicable)

.....

QC18. Apart from the institutions already mentioned (banks and micro credit institutions) do you know of other support structure to small businesses like yours?

Yes [] → continue No [] → go to QC19

Please list the name of such institutions contacted and the results in the table below

S/N	Name of institution contacted	Result (e.g helpful, not-helpful)
1		

2		
3		

QC19. What are the regular sources of financing your business operations? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Personal savings[] Family/relatives[] neighbour/friends[]
 employer/landlord[] private money lender/pawnbroker[] credit from suppliers[]
 Credit from buyers[]

QC20. If you ever obtained a loan from bank or/and other sources what was the impact of the loan on your business? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Increase in the volume of production[] diversification of production[] increased sales[]
 improve competitiveness/profitability[] recruitment of additional staff[]
 working less time[] utilisation of less staff[] financial difficulties[]

QC21. Do you have problems/difficulties relating to the following areas of your business? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Supply of raw materials[] lack of customers[] too much competition[]
 difficult to get loan[] access to land/space for business[] lack of machines/equipment[]
 organisation/management difficulty[] too much government control/taxes[]
 too little revenue[]

QC22. What do you know or think is the biggest problem faced by the informal sector? Please specify.....

QC23. Which type of help would you require in order to solve your current problem? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Technical training[] training in organisational and financial management[]
 assistance in obtaining supplies[] access to modern machines[] access to loans[]
 access to information on the market[] access to large business order[] registration of business[]
 advertising of new products/services[] access to land[] access to business premises[]

QC24 How do you rate your ability to think very fast, solve your cost or other business problems quickly?

Very fast[] fast[] neither fast nor slow[] slow[] very slow[]

QC25 List two things you think or know the government or its agencies are doing to slow down the expansion of business in the informal sector:

1.....
 2.....

QC26 What is your plan for the future? (**Please rank the options 1, 2, 3... if you are taking more than one**).

Continue the business as it is[] get a good job and forget about this business[]
 invest more & expand this business[] start a better business[] make this business enterprise formal[]

Chapter 7

Table A7.1: Share of oil revenues in total tax revenues in Nigeria.

Year	T.REVNU N'm	OILRV N'm	NOILRV N'm	pitr N'm	OR as % of TR (%)	pittr as % of TR. (%)
1981	13,290.50	8,564.40	4,726.10		64.44	
1982	11,433.70	7,814.90	3,618.80		68.35	
1983	10,508.70	7,253.00	3,255.70		69.02	
1984	11,253.30	8,269.20	2,984.10		73.48	
1985	15,050.40	10,923.70	4,126.70		72.58	
1986	12,595.80	8,107.30	4,488.50		64.37	
1987	25,380.60	19,027.00	6,353.60		74.97	
1988	27,596.70	19,831.70	7,765.00		71.86	
1989	53,870.40	39,130.50	14,739.90		72.64	
1990	98,102.40	71,887.10	26,215.30		73.28	
1991	100,991.60	82,666.40	18,325.20		81.85	
1992	190,453.20	164,078.10	26,375.10		86.15	
1993	192,769.40	162,102.40	30,667.00		84.09	
1994	201,910.80	160,192.40	41,718.40		79.34	
1995	459,987.30	324,547.60	135,439.70		70.56	
1996	523,597.00	408,783.00	114,814.00	-	78.07	
1997	582,811.10	416,811.10	166,000.00	500	71.52	0.09
1998	463,608.80	324,311.20	139,297.60	700	69.95	0.15
1999	949,187.90	724,422.50	224,765.40	1100	76.32	0.12
2000	1,906,159.70	1,591,675.80	314,483.90	1200	83.50	0.06
2001	2,231,600.00	1,707,562.80	903,462.30	2200	76.52	0.1
2002	1,731,837.50	1,230,851.20	500,986.30	1700	71.07	0.1
2003	2,575,095.90	2,074,280.60	500,815.30	4200	80.55	0.16
2004	3,920,500.00	3,354,800.00	565,700.00	5000	85.57	0.13
2005	5,547,500.00	4,762,400.00	785,100.00	4900	85.85	0.09
2006	5,965,101.90	5,287,566.90	677,535.00	5900	88.64	0.1
2007	5,715,600.00	4,462,910.00	1,200,800.00	10300	78.08	0.18
2008	7,866,590.38	6,530,600.00	1,336,000.00	27000	83.02	0.34
2009	4,844,592.34	3,191,900.00	1,652,700.00	29900	65.89	0.62
2010	7,303,671.55	5,396,100.00	1,907,600.00	32930	73.88	0.45
2011	11,116,900.00	8,879,000.00	2,237,900.00	43900	79.87	0.39
2012	10,654,724.87	8,025,953.48	2,628,771.39		75.33	

Note: Data on oil, non-oil, and total revenues are obtained from CBN (2012) publications and updated from the website; data on personal income tax revenue were obtained from federal inland revenue service (FIRS). N'm is million naira. Last column is calculated by the author from columns 1 & 2. OR is oil revenue; TR is total revenue; PITR is personal income tax revenue

Chapter 8.

Appendix A8

Data were collected from Nigerians who were age 17 and above. To calculate the proportion of married Nigerians in the total population, there needs to be some adjustment on the census figures, as the population figures are grouped into five-yearly intervals. According to the census figures, total population of Nigerians in the marriageable age group is 97,831,443.

A break down puts the age group population as: 10-14 = 16,135,950; 15-19 = 14,899,419. If we assume that 17-19 is $\frac{3}{5}$ th of 15-19 age group (given there are 5 intervals, with an average of 1), then, 17-19 age group will have a population of 8,939,651.9. Subtracting that from 31,035,369 (sum of 10-14 and 15-19 age groups), we have 22,095,717.6. Therefore, population of 17-85+ years is 75,735,725.4 (97,831,443-22,095,717.6).

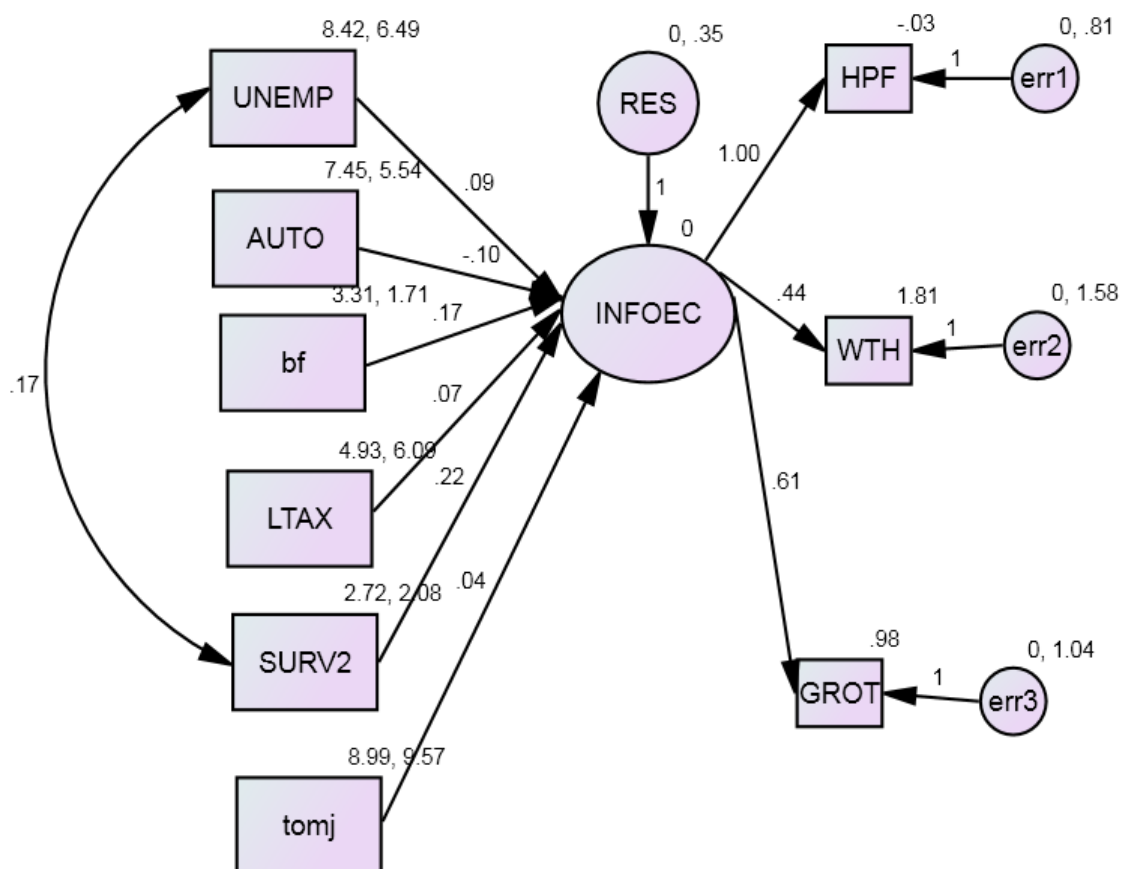
Following similar process, I am able to calculate the proportion of the married population within the age group for which data were collected. Those married: 10-16 = 14,107,511.8; 17-85+ = 47,513,565.2. Therefore, married Nigerians as a proportion of total within the age group from which data were collected is $\frac{47,513,565.2}{75,735,725.4} = 62.74\%$.

Appendix A8.1

The 2 questions are:

1. Out of ten people, how many do you think work or do business in the informal economy in your area/state?
2. Out of ten people, how many do you think work or do business in the informal economy in Nigeria?

Appendix A8.2



Chapter 9

Table A9: Help required by informal participants.

	Ranks of help required to solve informal sector work/business challenges (%)									
	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
Technical training	25	1.6	4.3		7.1	9.1				
Org. & financial mangt. Training	15.8	16.1	2.2	5.3	7.1					
Supplies assist	7.7	4.8	6.5		7.1	9.1			25	
Modern machines' access	10.2	14.5	10.9	5.3		9.1				
Access to loans	23.5	25.8	8.7	15.8					25	
Market info access	3.1	8.1	15.2	15.8	21.4	9.1	11.1	20		
Access to large biz orders	7.1	14.5	10.9	5.3	7.1	18.2	11.1			33.3
Registration of biz	1.5	1.6	2.2	10.5		18.2	11.1			33.3
Adverts for new products/services	1.5		8.7	10.5	14.3		11.1	20	25	33.3
Access to land	1.5	4.8	13	21.1	14.3	18.2	11.1	40	25	

Access to business premises	3.1	8.1	17.4	10.5	14.3	9.1	44.4	20		
Total	100	100	100	100	100	100	100	100	100	100
Number of responses	196	62	46	19	14	11	9	5	4	