

Evaluation of Micro-Based Dimensions of the Informal Economy in Nigeria

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Abstract

The informal economy (IE) includes economic activities such as street trading that operate outside of government regulations. Informal economy activities are mainly found in the trade, manufacturing, services, and agricultural sectors of the economy. Various micro dimensions of the informal economy such as its size and registration have been examined in the literature, however, less attention has been paid to other specific dimensions that are peculiar to informal sector activities in Nigeria. This study, therefore, evaluated selected micro dimensions of the informal economy in Nigeria namely incomplete book-keeping records, cash-based transactions, concealment of activities from official scrutiny, and harassment and its determinants. The methodology consisted of a survey approach. The purposive sampling method was used to select two hundred and six (206) and two hundred and four (204) microenterprise owners in Lagos and Kano states, respectively. The drivers of the dimensions examined included gender, marital status, educational attainment, ownership status, source of finance, tax morale, income, and hours of work. The Probit technique was employed to examine the effects of micro-based factors on selected dimensions of the informal economy. The results revealed that underemployment was the only consistent driver of the dimensions of the informal economy. It was positively related to the absence of book-keeping records, cash-based transactions, and concealment while it was negatively related to harassment. In addition, incomplete book-keeping records was the largest dimension of the informal economy examined. Based on these results, this paper recommends that the issue of unemployment be addressed by the government and the organised private sector by providing funds for enterprise setups at a low-interest rate. Furthermore, the deployment of technology can be used to aid the keeping of records.

Keywords: Informal Economy, Incomplete Accounting Records, Cash-Based Transactions, Concealment, Harassment

Introduction

Globally, the informal economy has increasingly attracted attention due to its multidimensional diversity (Adoho & Doumbia, 2018; Canelas, 2019). These dimensions cut across gender (Malta, Kolovich, Martinez & Tavares, 2019), formality status (Aina, 2019), income levels, economic activities, and urban-rural divide (Folawewo & Orija, 2020). In Nigeria, the informal economy accounted for 66.61 percent of GDP in 2015 causing the country to rank among the largest informal economies in the world (see Medina & Schneider, 2018). NBS & SMEDAN (2012) show that the informal sector employs a significant share of the economically active population. Its activities which are partially regulated or not regulated by the applicable regulatory body cut across various sectors of the economy such as trade and agriculture.

During the 1960s to 1970s, the formal sector was perceived as a driving force of economic expansion, while, the informal economy offered a temporary stopover for the unemployed (ILO, 1972; Meagher & Yunusa, 1996). However, rather than shrinking in size, it has increasingly contributed to employment, income generation, and economic activities over time. Contributory factors include years of poor economic performance resulting in high unemployment rates and poverty, rapid urbanisation, decline in formal employment, implicit and deliberate promotion of micro, small, and medium scale enterprises by the government, and the informalisation of formal employment (Oresajo, 2020). Contrary to the earlier stance on the informal economy by the International Labour

Organisation (ILO), Dasgupta & Lloyd-Jones (2018) is of the view that it is likely to persist and restrictive policies are inimical to its growth. The imposition of these restrictive policies is a result of the view that the informal economy poses a hindrance to economic development (Dell'Anno & Adu, 2020).

The dimensions of the informal economy are so diverse that several approaches have been used for its measurement. Selected current literature on the approaches includes the direct approach (Folawewo & Orija, 2020), the indicator (Oresajo, 2020), and the model approaches (Dell'Anno & Adu, 2020). Initial studies on the phenomenon in Nigeria mainly utilised the direct approach to determine the socio-economic characteristics, size, drivers, and reasons for participation (Fapohunda, 1985; CBN/FOS/NISER, 2001). These studies note that most informal economy activities are carried out by microenterprises but they ignored the dimensions that shed light on their activities. Therefore, considering the diverse nature of the informal economy and the desire to analyse neglected micro dimensions of the informal economy of Nigeria, this study contributes to the empirical literature by studying four micro dimensions namely the absence of or partial keeping of bookkeeping records, use of cash for payments, concealment of activities, and harassment. This is borne out of the synthesis of the dualist and legalist view. In the case of the former, participation in the informal economy is a result of the imbalance of two coexisting sectors, the formal and informal sectors, and the inability of the formal sector to absorb extra workers which pushes them into the informal sector. The latter attributes participation to choice which arises from the time and effort involved in formalising enterprises. Intuitively, the dimensions identified in this paper arise from the choices made and the conditions that gave rise to participation.

The main objective of the study is to examine the impact of the drivers of the informal economy such as demographic factors, tax morale, size of business, and underemployment on selected country-specific micro-based dimensions of the economy.

The remaining parts of the paper are structured as follows: Section 2 explores the concept of the informal economy, and presents the theoretical and current empirical literature review. Section 3 explains the methodology, while the results are presented and discussed in Section 4. The recommendations and conclusions are made in Section 5.

Literature Review

Conceptual Review

The concept of the informal economy originated from studies conducted on the informal economy of Kenya and Ghana (ILO, 1972; Hart, 1973). It is also known in the literature as the shadow, unrecorded, unobserved, unreported, subterranean, underground, hidden, illegal, grey, clandestine, second, parallel, and black economy amongst others (George, 1994; Schneider & Enste, 2000). The informal economy consists of economic activities or economic units that deliberately evade some or all of the required government regulations, on taxes, registration, and social security requirements (De Soto, 1989; Schneider & Enste, 2000). The deliberate action of evasiveness is evident in absence of book-keeping records, and cash payment for goods bought or sold. This action aids concealment of activities and subsequently, such economic units are harassed by government agents. Furthermore, these units do not usually keep accounting records of their transactions but commit their transactions to memory (Adoho & Doumbia, 2018). They also use mainly cash for transactions thus making the audit trail very difficult to trace. In this study, the informal economy is conceptualised as economic units that are evasive of some or all relevant government regulations by engaging in the concealment of activities, not keeping accounting records, and using mainly cash for transactions. These actions invariably lead to harassment by government officials. This conceptualisation of the informal economy forms the basis for the dimensions of the informal economy to be examined.

According to Kale (2019), microenterprises dominate the informal economy, and the majority (97.8%) are not registered. This makes it difficult to track their activities for policy interventions. These economic units are

usually one-man or family-run businesses with the sole proprietorship dominating the ownership structure (65%). The educational status of participants shows that the majority are largely illiterate and semi-illiterate individuals with 76.4% having a senior secondary certificate and below. Microenterprises largely employ unpaid family members, apprentices, and a limited number of paid workers who are economically and socially vulnerable due to the lack of access to a pension, instability of incomes, and job insecurity. This indicates a deficiency in the quality of jobs (Angel-Urdinabe, & Tanabe, 2012; Folawewo & Orija, 2020). For the majority, startup capital is less than N50,000 (Kale, 2019). The main credit channel for financing the business comes from personal savings and informal credit sources. In connection with its size, the informal sector is generally characterised by low use of technology and innovation, and a low level of production and quality. The size effectively limits its evolution to large firms which impede its access to credit for expansion. The bulk of its activities is carried out by micro-enterprises that operate from fixed structures or roving structures/persons. Although their activities are visible, their internal operations are hidden. NBS (2010) identifies informal economy businesses based on the employment criteria of less than ten (10) workers regardless of whether they are registered or not.

Theoretical Literature Review

There are three dominant schools of thought which have different opinions as to the drivers of the informal economy. It comprise the dualist, structuralist, and legalist schools. This dualist school argues that informal activities persist because the surplus labour from the subsistence sector is not fully absorbed into the modern sector (Lewis, 1954; Harris & Todaro, 1970; Rauch, 1991). This leads to economic agents using the informal economy as a second-best strategy to avoid unemployment and poverty (Canelas, 2019; Malta, et, 2019). The structuralists argued that the informal economy is a means of bypassing regulations (Portes, Castells, and Benton, 1989). On the other hand, the legalist school states that informal activities persist due to the costs, time, and effort of formal registration caused by government regulations (De Soto, 1989). Participation in the informal economy according to the dualist school is attributed to exclusion while the legalist school links it to voluntary choice. Another theoretical dimension to participation in the informal economy is derived from the model of tax evasion by Allingham & Sandmo (1972). The tax evasion model reveals that participation in informal economy activities depends on the penalty and the risk of detection.

The theoretical framework adopted for this study is a synthesis of the dualist and legalist schools of thought popularised by Fields (1990) and Perry (2007) who are of the view that upper tier informal economy participants thrive. It deals with the motivation to participate in the informal economy and such motivation includes unemployment and the costs of formality which leads to the different dimensions of the informal economy.

Methodological Literature Review

Major approaches to measuring the informal economy comprise the direct, indirect, and model approaches (Medina, Jonelis & Cangul, 2017). The direct approach uses surveys that capture the level of compliance based on responses and tax audits. Its advantage lies in the detailed information obtainable, but, it may be biased by dishonest responses. However, it is useful for generating individual and firm-specific determinants and drivers of the informal economy. The indirect approach also called the indicator approach makes use of macroeconomic data. It determines the size of the informal economy by measuring traces that it leaves in official statistics. The indicators include the difference between national expenditure and income statistics, the discrepancy between the official and actual labour force, the usage of physical inputs such as electricity (Kaufmann & Kaliberda, 1996; Lacko, 1996), the transactions approach, and the currency demand approach (Cagan, 1958; Guttman, 1977; Tanzi, 1980). It provides information on the informal economy over time. However, the problem of double counting may arise. The model approach is associated with the Multiple Indicators Multiple Causes (MIMIC) model which is a special type of the Structural Equation Model (SEM). Unlike the other methods that consider only one cause, several causes can be evaluated in the context of the MIMIC model (Dell'Anno & Adu,

2020). However, the focus of this paper is on the micro drivers and their effects on the dimensions of the informal economy.

Various techniques that have been applied to evaluate the micro determinants include the use of descriptive statistics and frequencies (Akerele, 1997; Fapohunda, 1985; Omisakin, 1999; Oni, 1994, 2006). These studies carried out independent surveys to identify the determinants and dimensions of the informal economy. In addition, the probit model, and logit models (Angel-Urdinabe, & Tanabe, 2012; Folawewo & Orija, 2020; Malta, et.al. 2019) have been applied to household and employment survey outcomes.

Empirical Literature

Angel-Urdinabe, & Tanabe (2012), Canelas (2019), and Henley, Arabsheibani, & Caneiro (2006), defined informality in terms of lack of social security coverage. Henley, Arabsheibani, & Caneiro (2006) investigated other dimensions such as employment contract and registration and family circumstances on the likelihood of participating varies from one definition to the other. Another dimension identified by Adoho & Doumbia (2018), is related to income, and participants were disaggregated based on income levels. Another dimension identified in the literature are gender gaps that increase the participation of women in the informal economy (Malta, et.al. 2019). Omoegun, Mackie & Brown (2019) addressed the issue of harassment under the guise of eviction.

Folawewo & Orija (2020) investigated the effects of the informal sector on livelihoods as well as analysing transitions of workers within the informal sector and between informal and formal employment. The results revealed the impact of informal employment on livelihoods and the transition of workers within different types of informal employment. Dasgupta & Lloyd-Jones (2018) focussed on cities that were expected to experience massive future urban development on the argument that the informal economy will persist. The study investigated the internal diversities of the informal economy. Results show the dominance of women in numbers but the men dominate as the main actors. Huang, Zhang & Xue (2017) note that the heterogeneous nature of the informal economy is motivated by diverse reasons for which livelihood improvement is germane. The drivers of the motivation to participate in the informal economy include unemployment, poverty, poor remuneration, and a desire for economic freedom. However, this study deviates from Dasgupta & Lloyd-Jones (2018) by focussing on cities with the current largest informal economy.

Canelas (2019), studied the relationship between informality and poverty. Findings show that the informal sector is related to poverty and is demand and supply-driven. Angel-Urdinabe & Tanabe (2012) assessed the micro determinants of informal employment. Explanatory variables of interest included age, gender, education, marital status, employment sector, and urban dummy. The outcomes of the analysis showed that the size of the public sector and agricultural sector were the main determinants. Henley, Arabsheibani, & Caneiro (2006) investigated the effects of age, age squared, female, ethnicity, illiterate, schooling, region, urban resident, union member, an establishment with less than eleven employees, occupation, and other family circumstances on three definitions of the informal economy namely absence of employment contract, registration, and social security. The results revealed that the impact of demography, education, and family circumstances on the likelihood of participating varies from one definition to the other. Adoho & Doumbia (2018), identified three groups of informal sector entrepreneurs based on income and they are the top performers, constrained entrepreneurs, and survivalists. Findings revealed the prevalence of poverty and income inequality among the constrained entrepreneurs and the survivalists.

An investigation of the after-effects of eviction on Street traders in Lagos by Omoegun, Mackie & Brown (2019) shows that it has long-term effects and such enforcement activities amount to harassment to the traders. Subsequently, they relied on social networks and collective action to establish their livelihoods.

Methodology

Modelling the micro determinants of the informal economy

The micro-determinants of various dimensions of participation in the informal economy are presented in equation 1

$$Pr(\text{Participation}) = f(\text{gender, education, ownership status of business, source of finance, tax morale, hours of work}) \quad (1)$$

The probability (Pr) of participation is based on selected indicators of the informal economy as gathered from the literature. These include the probability of not keeping official accounting records, using mainly cash transactions, concealment of activities from official scrutiny, and harassment arising from non-compliance with regulations. The micro-determinants include gender, education, ownership of a business, source of finance, tax morale, and hours of work.

The determinants of the informal economy are modelled based on the probit model. The probit model is a type of regression in which the dependent or response variable can take only two values. The response variable Y is binary, as it has two possible outcomes which are denoted as 1 and 0. The vector of regressors x , is assumed to influence the outcome Y . The probit regression model was selected because it allows for binary dependent variables (Folawewo, 2006). It is also advantageous for quantifying the relationship between the probability of participation using selected informal economy indicators and its determinants.

Specifically, the probit model takes the form

$$Pr(Y = 1|x_1, \dots, x_n) = \Phi(\beta_0 + \beta_1x_1 + \dots + \beta_nx_n) \quad (2)$$

where Pr denotes probability, and Φ is the Cumulative Distribution Function (CDF) of the standard normal distribution. The parameters β are typically estimated by the maximum likelihood procedure. For each of the dimensions identified in this study, the probit model takes the form

$$Pr(Y_{1i} = 1|x_{1i}, x_{2i}, x_{3i}, x_{4i}, x_{5i}, x_{6i}) = \Phi(\beta_0 + \beta_1x_{1i} + \beta_2x_{2i} + \beta_3x_{3i} + \beta_4x_{4i} + \beta_5x_{5i} + \beta_6x_{6i}) \quad (3)$$

$$Pr(Y_{2i} = 1|x_{1i}, x_{2i}, x_{3i}, x_{4i}, x_{5i}, x_{6i}) = \Phi(\beta_0 + \beta_1x_{1i} + \beta_2x_{2i} + \beta_3x_{3i} + \beta_4x_{4i} + \beta_5x_{5i} + \beta_6x_{6i}) \quad (4)$$

$$Pr(Y_{3i} = 1|x_{1i}, x_{2i}, x_{3i}, x_{4i}, x_{5i}, x_{6i}) = \Phi(\beta_0 + \beta_1x_{1i} + \beta_2x_{2i} + \beta_3x_{3i} + \beta_4x_{4i} + \beta_5x_{5i} + \beta_6x_{6i}) \quad (5)$$

$$Pr(Y_{4i} = 1|x_{1i}, x_{2i}, x_{3i}, x_{4i}, x_{5i}, x_{6i}) = \Phi(\beta_0 + \beta_1x_{1i} + \beta_2x_{2i} + \beta_3x_{3i} + \beta_4x_{4i} + \beta_5x_{5i} + \beta_6x_{6i}) \quad (6)$$

Y_{1i} , Y_{2i} , Y_{3i} , and Y_{4i} are binary response variables that indicate the presence of an informal sector dimension which includes the absence of official accounting records, use of cash for transactions, concealment of activities, and harassment. x_{1i} , x_{2i} , x_{3i} , x_{4i} , x_{5i} , and x_{6i} represents gender, education, ownership of the business, source of finance, tax morale, and hours of work of each. Further information on the sub-categories that make up each determinant is given in Table 1.

Table 1: Description of Variables

Variable	Modalities
Sex	Male Female
Age	15-25 years 26-35 years 36-45 years 46-60 years Over 60 years
Marital Status of Respondent	Single Married Separated/Divorced Widowed
Educational Status of Respondent	No Formal Education Primary Secondary Vocational/ Technical Tertiary
Status of Business	Sole proprietorship Partnership Family-owned business Cooperative Registered enterprise/company Others
Major source of finance	Commercial Bank loan Microfinance bank loans Association support/Cooperative Informal savings (Adashi/Ajo/Esusu) Money lenders Loans from Friends/relatives Remittances from abroad Personal savings Government programme/NGOs/International Organization
Size (Average monthly income/profit)	Less than #30,000 30,001-50,000 50,001-100,000 100,001-500,000 500,001-1,000,000 1,000,001 and above
Hours spent weekly running the business	20-35 hours 20-35 hours 36-40 hours 36-40 hours

Source: Authors Computation (2022)

The relationship between these indicators and incentives (which are dummy variables) is stated as follows; Gender (male, female), and educational status are important socio-economic determinants of the informal

economy. The overrepresentation of females in the informal economy is positively related to participation. This is attributed to lower levels of education, cultural norms, early marriage, preference for flexibility, poverty, and discrimination (Malta, et.al., 2019) The higher the educational attainment the less the probability of participation based on the human capital model (Becker, 1962; Rosen, 1976). The theory argues that individual workers have a set of skills that they improve on through training and education. The accumulation of human capital tends to increase their value and productivity in the labour market. A sole proprietorship is a dominant category for ownership status of the business and it is positively related to participation in the informal economy. Personal savings predominate the source of finance and it is a reason why such microenterprises remain small in size. The higher the level of tax morale, the lower the incentive to participate in informal economy activities (Torgler & Schneider, 2007). The relationship between the number of hours worked and the likelihood of participation can be positive or negative depending on the returns (Becker 1962).

The marginal effects were derived and interpreted. Other parameters interpreted included the Pseudo R² and chi-squared.

Data Sources

The survey carried out in two states of the federation namely; Lagos and Kano states respectively was the source of data for the probit regression model which was used to assess the micro determinants of the informal economy. Both states were purposely selected because of the large size of ongoing informal economy activities (NBS & SMEDAN, 2012) and for having the highest informal sector participants disaggregated by owners (NBS, 2010). This was deemed a rich source to investigate the various dimensions of the informal economy.

The purposive sampling technique was used to select the 250 respondents in each state based on the study's definition that a participant is an entrepreneur who employs less than 10 employees in line with the National Bureau of Statistics definition of a microenterprise.

The choice of the microenterprises was based on the report by Kale (2019) that they form the majority of firms involved in the informal economy. Clusters of microenterprise owners who spanned several local government areas were selected and available respondents were either interviewed or administered questionnaires based on their convenience. A total of two hundred and fifty (250) structured questionnaires were distributed, out of which two hundred and six (206) and two hundred and four (204) were returned in Lagos and Kano states respectively. This represented a reasonably high response rate of eighty-two (82) percent. The local government areas surveyed in Kano included Tarauni, Fagge, Kano Municipal, Gwale, Kumbotso, and Dala. In Lagos, the areas surveyed were Apapa/Badagry axis, Oshodi axis, Iyana-Ipaja axis, Ogudu/Berger/Ikeja axis, and Yaba/Obalende axis.

Results and Analysis

The determinants of the identified dimensions of the informal economy were examined using the probit regression analysis. The results were interpreted using the marginal effects which are presented in Table 2.

Table 2: Determinants of selected dimensions of the informal economy

	Absence of Book-keeping Records	Cash Payments	Concealment	Harassment
Gender				
Male		-.064**(.030)		
Education				
no_formal_education			.654***(.180)	
Primary			.284***(.104)	
Secondary				-.113**(.053)
vocational_technical			.369** (.149)	
Ownership status of the business				
sole_proprietorship			-.380** (.157)	
family_owned			-.414** (.179)	
registered				
enterprise/company			-.746***(.269)	
Source of finance				
Bank loan		-.245***(.093)		.357**(.169)
Microfinance loan	-.102**(.051)	-.123** (.059)		
Association				
Friends		-.121** (.053)		
Abroad				.378**(.188)
Personal saving			.299**(.104)	
Govt/NGO				.412**(.201)
Response to a proposed tax increase (tax morale)				
Support			-.311***(.078)	
Hours worked				
Less than 20 hours	.083** (.041)			-.251***(.082)
20 to 35 hours	.084** (.033)	.101***(.034)		-.118** (.054)
36 to 40 hours	.129***(.043)		.170**(.082)	-.164***(.056)
Pseudo R2	0.340	0.283	0.241	0.181
Log likelihood	-75.085	-103.509	-212.099	-167.422
LR chi2	77.28***	81.51***	134.36***	74.14***
No of observations	313	396	403	407

Source: Author's computation

Note: i. Estimated coefficients are given with standard errors in parentheses.

ii. $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

iii. Only significant results are reported

Dimension I: Absence of book-keeping records

Variables that significantly affect records keeping as an indicator of the shadow economy are access to microfinance loans, and hours of work (less than 20 hours, 20 to 35 hours, and 36 to 40 hours). Those who have access to microfinance bank loans reduce their involvement in the informal economy by roughly 10 percent, holding other factors constant. This could be attributed to the legal paperwork needed to secure a loan which involves documentation with relevant official authorities. The probit results also show that working for fewer than 20 hours, 20 to 35 hours, and 36 to 40 hours increases the likelihood of engaging in the informal economy by 8 percent, 8 percent, and 13 percent, respectively. Unemployment which can also be defined as those working below 40 hours per week is relatable to these results. According to the legalist school, economic agents engage in the informal economy by choice.

Dimension II: Payments Using Cash

Cash is used for the majority of transactions in the informal economy (Schneider and Enste, 2000). Controlling for other characteristics, there is a 6 percent, 25 percent, 12 percent, and 12 percent chance that the individual participating in the informal economy is a male; has access to a loan from a bank, microfinance bank, and friends. There is a progressive decline in participation across the significant financing channels from the bank, microfinance banks, and friends. Working hours may predispose a person to use the monetary channel. Putting in 36 to 40 hours of work each week, in particular, is positively related to using the cash payment channel. The cash-based indicator and the following variables have a substantial negative association.

Dimension III: Concealment

The inclusion of this indicator captures illegal and criminal activities. When a participant lacks formal education, has finished primary education, or has received vocational training, the risk of concealment increases by around 65 percent, 28 percent, and 37 percent, respectively. It is worth noting that, within the category of education, having no formal education has the highest probability of deciding this indicator.

Being a sole owner, operating a family business, or a registered enterprise, and supporting a tax increase all have a negative and significant impact on the decision to conceal one's activities. Family enterprises are operated in collaboration with close family members and partners who do not wish to see their means of subsistence go down the drain. The same is true for sole proprietorships. Supporting a tax increase for the public benefit demonstrates a high level of tax morale, and such an individual is unlikely to participate in illegal activity (Torgler & Schneider, 2007).

Specifically, when it comes to financing, personal funding increases the likelihood of concealing business premises and/or items by 29 percent. In addition, underemployment, as measured by individuals working between 36 and 40 hours per week, explains 17 percent of the variations in concealment when other factors remain constant.

Dimension IV: Harassment

Harassment is a natural consequence of working in the informal sector (De Soto, 1989). According to Omoegun, et.al., (2019), an instance of harassment is the eviction of traders from their locations which affects their activities in the long run. Obtaining credit from a bank, remittances from overseas, the government, or a non-governmental organisation all contribute positively and considerably to harassment holding other drivers of the concealment constant. Furthermore, a bank loan, government assistance, or remittances from overseas predisposes a participant to harassment with a chance of 36 percent, 41 percent, and 38 percent respectively. Time spent running the business and obtaining a secondary education is inversely related to harassment by government officials for contravening regulations. This is because underemployment may cause the respondent to carry out their business activities at their convenience, thereby avoiding harassment. Completion of secondary school education, working less than 20 hours, 20 to 35 hours, and 36 to 40 hours reduces the likelihood of harassment by about 11 percent, 25 percent, 12 percent, and 16 percent, respectively.

The pseudo-R² indicates that the explanatory factors account for approximately 34 percent, 28 percent, 24 percent, and 18 percent of the variation in the indicator variables, respectively. The magnitude was highest for the absence of book-keeping records, followed by cash transactions, concealment, and harassment. This implies that the absence of book-keeping records is the dominant dimension evaluated in this study. In summary, the factors determining the informal economy vary across different dimensions of the phenomenon.

Conclusions and policy recommendations

Due to limited empirical research into the dimensions of the informal economy, this study evaluated the determinants of selected dimensions of the informal economy in Kano and Lagos states respectively.

Dimensions examined included the absence of book-keeping records, cash-based transactions, concealment, and harassment. The probit model was used for the empirical analysis.

Findings revealed that unemployment and underemployment measured by work hours per week of fewer than 40 hours are consistently responsible for the prevalence of the informal economy across the various dimensions such as the absence of bookkeeping records, cash payments, and concealment. This is theoretically consistent with findings in the literature (Huang, Zhang & Xue, 2017). On the other hand, hours of work are negatively related to harassment. This throws up the issue of ease of mobility due to the unemployment of informal sector participants and the ever-changing face of their activities. In addition, the absence of book-keeping records was the largest dimension of the informal economy. This suggests that records that could be used to track business transactions by government officials are non-existent for policy implementation.

Consequently, the study concludes that the absence of accounting records is a major dimension of the informal economy and that unemployment is a positive determinant of this dimension. Hence, the following suggestions are made to ease the impact of unemployment and motivate microenterprise owners to keep records of their transactions. First, to create more jobs, the government and the private sector should provide funding for business start-ups and pre-existing businesses. The funds should be easily accessible and provided at a favourable rate of interest. Secondly, macroeconomic policy should be directed at revamping moribund industries so that additional jobs can be created. In addition, owners of businesses should be identified and trained in keeping simple records of their transactions. This can be made possible through the deployment of technology.

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