

THE IMPACT OF BUSINESS ENVIRONMENT ON BUSINESSES' DECISION TO FORMALISE: EVIDENCE FROM SELECTED AFRICAN COUNTRIES

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—Abstract—

The paper made use of data from the World Bank enterprise surveys database, for selected African countries. The enterprise surveys were carried out at different time periods, and as such the study relied on cross sectional data for analysis. The study focussed on five areas of the business environment, namely Corruption, Access to Electricity, Access to Finance and Land, and Crime, Theft and Order. The data was coded using the Likert Scale ranging from one to five, where one represented the absence of an obstacle for a specific variable, and five represented the presence of a very severe obstacle to the decision to formalise. A logistic regression was used to analyse the data and the analysis found that access to finance is more likely to be an impediment to businesses' decision to formalise while on the one hand access to land and electricity were found not to be significant determinants of the decision to formalise. Crime and corruption on the other hand were found to be significant determinants of the decision to formalise. The paper highlights the importance of certain variables such as crime and corruption as obstacles to businesses' decision to formalise. Effectively tackling crime and corruption can go a long way in encouraging small businesses operating in the informal sector to move into the formal sector.

Key Words: *Informal sector, Formal sector, Business environment, Developing countries, Gross domestic product.*

JEL Classification: *O10, O17*

1. INTRODUCTION

The informal economy has emerged as a dominant sector in several African countries over the last decade or so, with more businesses operating informally, and a significant share of national output now comes from this sector (Ingram, Ramachandran & Desai, 2007). The strong growth of the informal economy in Africa has resulted in the sector playing a leading role in several countries in terms of contribution to national output and job opportunities (Benjamin & Mbaye, 2012). More recent studies carried out by Benjamin and Mbaye (2012), covering several African countries show that the contribution of informal economy to the overall economy was estimated at levels around 50–80% of GDP, and the sector accounts for approximately 90% of new jobs.

The presence of a growing number of businesses in the informal economy in Africa has reignited the debate on informality, and its possible causes and effects on the growth trajectory of African economies. Critically, with the growth and dominance of the informal economy in Africa, in particular sub-Saharan Africa, there are concerns over the impact of the informal sector on the development of these countries (Harati, 2014; Benjamin & Mbaye, 2012; Sparks & Barnett 2010; Loayza, Serven & Sugawara, 2009; Schneider & Enste, 2000).

The continued growth of the informal economy in Africa over the years defies traditional theories which postulated that informality would disappear as economies develop. Thus, contrary to earlier theories which viewed the informal sector as a temporary phenomenon which will gradually phase out with economic progression, the concept is now deeply entrenched in Africa.

The purpose of this paper is to analyse the impact of the business environment on businesses' decision to formalise. The paper seeks to test the hypothesis that businesses' decision to locate operations depends on the business environment. The paper focuses on microeconomic level determinants of informality in selected African countries. There is not much research that has investigated this relationship using empirical evidence (Buehn & Schneider 2009). Thus, this study is envisaged to make an empirical contribution to the relationship between business environment and informality in Africa. Further, empirical studies on informality are not common because of data challenges (Elgin and Öztunali, 2014). This study however, borrowed from the Shadow economy estimates for developing countries constructed by Medina and Schneider (2018). The study, however, focuses on selected African countries, because the challenge of informality and business environment are more prevalent in this continent.

2. LITERATURE REVIEW

2.1. Definition of the informal sector

Although there has been a great deal of research on the informal sector since 1971 when the term was officially coined, there is still no standard agreed definition (Charmes, 2012). Researchers have so far found it difficult to come up with a common definition which is widely acceptable by all users. The nature and diversity of informal activities implies that the concept could have different meanings to different economic agents (Benjamin & Mbaye, 2012).

The International Labour Organisation (ILO) (2002) defines the informal sector as any business which is easy to enter, relies heavily on indigenous resources, is characterised by family ownership of business, operations are usually small in scale and labour-intensive, skills are usually acquired outside the formal school system and markets are regulated and highly competitive.

Losby, Else and Kingslow (2002) argued that one remarkable feature of informal businesses is that their activities are not documented and in some instances are not correctly captured in the national accounts. This observation was supported by Kanbur (2009) who argued that informal businesses are characterized by a lack of fixed location of operations, non-payment of statutory obligations, and failure to keep books of accounts. Earlier studies by De Soto (1989), however, defined informality as a grouping of businesses, or workers, whose operations are not covered by the legal and regulatory frameworks of the country. This implies that businesses operating in the informal sector avoid the obligation of paying taxes and operate outside the stipulated laws and regulation.

According to Luebker (2008), the informal sector can be divided into two approaches, the first approach is based on the type of business and its legal status. This approach is in line with the ILO's (2002) and De Soto's (1989) definitions as discussed above. However, the second approach focuses on the characteristic of the job being done irrespective of the sector where the worker is employed; the approach highlights the challenges that workers face, namely a lack of social protection, a lack of rights at work, poor working conditions and an insecure income.

Williams, Shahid and Martinez (2016) argued that besides not paying taxes and adhering to the country's labour laws, the operations of informal businesses are legal in all aspects. Thus, economic agents who are engaging in illegal activities such as drug trafficking are not part of the informal economy but a criminal syndicate in a society (Smith & McElwee, 2013).

What is imperative is that the lack of agreement on the definition of the informal sector has resulted in different interpretations of this phenomenon. Gërkhani (2004)

argues that researchers are no longer fixated on finding a common definition but instead are defining the concept in relation to the challenge at hand. It is clear that whatever definition African countries accept, the phenomenon is increasing at an alarming rate, and is now accounting for a great proportion of economic activities in a number of African countries (Benjamin & Mbaye, 2012).

Based on the Modernisation approach, informality was viewed as a temporary concept, which was expected to disappear as the economy grows, as the growth of the economy was expected to result in the movement of surplus labour from the traditional sector. Radwan (2007) argues that these models were based on the expectations of a decline of the existing asymmetries over time and a gradual waning-off of dualism as economies developed. This dualist approach viewed the informal sector as a marginal sector, and whose contribution to national income was insignificant. The participants in this sector were largely viewed as comprised of people who were waiting for formal employment opportunities.

Proponents of this dualistic development viewed development on the basis of movement from a traditional to a modern, an unorganized to an organized, a subsistence to capitalist sector. The growth of the informal sector was a result of a lack of modern values system or institutions and hence a result of exclusion from the market system (Sherifat, 2011).

The Modernization approach stimulated a great deal of debate and literature on development theory and resulted in several extension over the years. Models such as the Harris-Todaro (1970) and Fields (1975) Models were all premised on this approach.

2.2. A brief background of the development of the informal sector

The continued expansion of the informal sector in developing countries, and its prominence in terms of employment creation and level of economic activities has made the concept a subject of intensive discussion (Williams et al., 2016, Charmes, 2012, Sinha & Kanbur, 2012). African economies have not been spared this wave in the rising prominence of the informal sector over the years. With increased economic activities now locked in the informal sector in several African economies, there are renewed calls in the academic discourse to further interrogate this phenomenon. This debate has become more pronounced given the fact that the informal sector has grown in African economies despite rising economic growth in some of the countries (Nazier & Ramadan, 2015). This has prompted economists to do more research on the informal sector and its implications in terms of how economies operate (Perry, Maloney, Arias, Fajnzylber, Mason & Saavedra-Chanduvi, 2007). Fundamentally, this has resulted in more questions than answers

in the academic discourse on the nature and dynamics of the informal sector, necessitating a review of the theoretical debates around this concept.

What is imperative is that development theories on the informal sector have evolved over the years, from earlier literature in the 1950s which viewed the informal sector as marginal or temporary, to the more modern approaches which officially coined the term informal sector (Hart, 1973).

The debate around the informal sector increased in the 1980s to encompass developed countries as production techniques in both North America and Europe were moving from big enterprises to small sized organizations, and agile production units. Chen (2012) argued that this reorganization of production was linked to the informalisation of employment relations, subcontracting of economic activities and outsourcing to small firms became a dominant feature of production processes. Castells and Portes (1989) concluded that the informal sector was a key component of the economy. Within this discourse of a growing informal sector in developing countries, one of the key debates that this paper investigates is the role of the business environment in driving the informal sector. The emergence of the global economic crisis in the 1980s in Latin America, Asian Tigers crisis in the 1990s, and the crisis associated with the implementation of the structural adjustment programmes in Africa is a testimony that besides businesses worrying about volatile domestic business environment, there are now external business environmental factors that businesses face, which require a flexible strategy to ensure survival and growth.

Chaudhuri and Mukhopadhyay (2010) argued that the increase in globalization from the 1990s added some new impetus to the role of external business environment in influencing firms' behaviour. With increased globalization and increased integration of markets, this presented new opportunities and threats for many small microenterprises in Africa. It is against this background that this paper seeks to investigate the relationship between business environment and informal sector in Africa. Assessing the relationship between the business environment and informal sector is crucial as developing countries are increasingly looking to understand the main drivers of the informal sector and policy measures to facilitate transition to the formal sector (Williams et al., 2016).

2.3. Business Environment

Aggarwal and Maurya (2016) defined business environment as the combination of a multiplicity of factors and forces that have a direct and indirect impact on the functioning of individual firms. This implies that the business environment can be

impacted by an aggregation of internal and external forces, which may have an influence on a business' operating environment. Based on the above definition, business environment can be viewed as the total surroundings of businesses which have a significant bearing on a business' performance and growth. Businesses operate in an environment that is highly unpredictable and with a great deal of ambiguities and hence businesses need to be flexible and dynamic in their decision making (Lichtenstein, Dooley & Lumpkin, 2006). This view was supported by Buta and Burciu (2014) who argue that today's business environment has become more uncertain, unstable, and as such, survival largely depends on the flexibility of businesses' strategies. The ability of businesses to adapt to the environment in which they operate is thus crucial for their growth and success (Angeloska-Dichovska & Mirchevska, 2016).

Esangbedo and Che (2016) argue that the business environment in Africa is very complex as the continent continues to battle with the legacy of colonial and post-colonial systems, which have left the continent in abject poverty and prone to wars and conflicts. As such, each country on the continent has some unique socio-economic and political circumstances that have a strong bearing on the business environment. Ajayi (2016) agreed with this opinion and concluded that firms should understand these dynamics because they are crucial for determining opportunities and threats for microenterprises. As such, the survival of firms depends on how they stay ahead of the game and ensure that their skills and knowledge meet the dynamic changes in the business environment. The decision-making process of firms is largely influenced by how firm owners analyse the business environment and the subsequent strategies they deploy. This view was supported by Angeloska-Dichovska & Mirchevska (2016) who concluded that the success or growth of firms depends on how they successfully monitor the business environment and align their operations accordingly.

The environmental factors that affects business can be broadly categorized into two main types, namely internal and external factors. Cherunilam (2009) argues that the internal environment largely consists of factors that are internal to the firm, and these factors are generally controllable due to the fact that the firm has control over them. Internal environment will include variables such as human resources, marketing strategy, organizational structure, corporate image, and Board composition among other, all factors that the firm can change or alter in response to changing market dynamics. The external environment largely consists of factors or forces that are beyond the control of a firm (Cherunilam, 2009). These factors

include variables such as demographic, economic, socio-cultural, government and legal, technical global developments, and all these factors are uncontrollable by nature and influence the business decision of a company. Ajayi (2016) argued that because these factors or forces are uncontrollable, the success of firms will thus depend on their adaptability to the external environment. The external environment can be divided further into the microenvironment and macroenvironment. The microenvironment comprises of the firm's immediate surroundings that have a bearing on the performance of the firm. This will include factors such as suppliers, customers, competitors, financiers among other. Microenvironmental forces by their nature do not automatically affect firms in the same industry in a similar way. Micro factors could be specific to a firm in a certain industry (Cherunilam, 2009).

The macroenvironment represents the total surroundings of a firm and the factors in its microenvironment, which may result in opportunities and threats to the firm. These macro variables are more uncontrollable than the micro forces. Some of the key macroenvironment forces include the political and regulatory environment, social/cultural, demographic, technological, natural, economic and global forces (Agboli & Chikwedu, 2006). The macroenvironment forces are mainly "given" parameters or framework in which firms must operate in a country and they differ from country to country. Given that the macroenvironment forces are uncontrollable, it means that the success of businesses largely depends on their adaptability to these forces. Microenterprises operating in Africa thus consider the dynamics of the business environment, especially external environment when making decisions. The complexities of the African external environment require firms to critically analyse the opportunities and threats that the external environment presents and position their firms accordingly to ensure survival and growth.

3. METHODOLOGY

3.1. Data

The aim of this paper is to assess the impact of the business environment on businesses' decision to formalise, using data from World Bank Enterprise Surveys for four countries, namely Democratic Republic of the Congo, Ghana, Kenya, and Madagascar. The choice of the selected African countries was largely informed by the availability of credible World Bank Enterprise Surveys data, for both formal and informal firms in the selected countries. This study is premised on the notion that businesses will formalise based on the principle of costs and benefits in the

informal and formal economy. As such, a business will formalise if the estimated profit in the informal sector is less than that in the formal sector.

The choice of countries was based on the non-probability sampling approach and cross-sectional data was used for analysis because the surveys were carried out at different time periods. The paper focussed on five areas of the business environment, namely Corruption, Access to Electricity, Access to Finance and Land, and Crime, Theft and Order. As for the size of the firm, it was classified based on the World Bank classification (World Bank 2016), where small is represented by zero to nineteen employees, medium being represented by twenty to ninety-nine and large being hundred and beyond. In terms of firm characteristics, the surveys focused on years of establishment, age of firm and size of firm.

3.2. Logistic regression

Logistic regression is a special form of regression in which the regressand is a non-metric, dichotomous (binary) variables and the independent variables could either be metric or non-metric (Hair, Black, Babin & Anderson, 2014). The logit model used in this paper is specified as follows:

$$FS = \text{Log}\left(\frac{P_i}{1-P_i}\right) = \beta_1 + \beta_2 Fin + \beta_3 Land + \beta_4 Elec + \beta_5 HCrime + \beta_6 Corr + \varepsilon_i$$

Table 1 below is a description of the variables for the logistic model specified above.

Table 1: Description of variables

Dependent variables	
FS	= The logistic formula stated in terms of the probability that Formal Status = 1 if the business is formal (p _i), and = 0 otherwise (1-p _i)
$\text{Log}\left(\frac{P_i}{1-P_i}\right)$	
Independent variables	
Fin	Access to Finance
Land	Access to Land
Elec	Access to Electricity
Crime	Crime, Theft and Order
Corr	Corruption
ε_i	The error term that follows a logistic regression

3.2.1. Interpretation of the logistic regression results

The results were interpreted using the coefficients which for a logistic regression are an indication of the change in the log odds for a one unit increase in the predictor variables as well as the odds ratios which represent the change in the odds of being in one of the categories of the dependent variable for every unit increase of any given variable in the model. An odds ratio of less than one for the odds ratio means that for every unit increase of a given variable the odds of a firm being formalised decreases, a value of one for the odds ratio means that there is no change in odds as the variable increased and a value of more than one means that for every unit increase of a given variable the odds of firm being formalised increases (Tabachnik and Fidell, 2014).

4. ANALYSIS

4.1. Descriptive Statistics

The purpose of this section is to present the findings of the selected African countries on the impact of the business environment on businesses' decision to formalise and hypothesises that a business' decision to locate operations depends on the business environment.

A total of 4431 enterprises participated in the study of which 57.8% were formal enterprises while 42.2% were informal. Approximately 90% of the participants were small businesses with less than 20 employees while about 10% were medium sized businesses with 20 to 29 employees.

On average, the informal sector businesses were aged 7.55 years with a median of 5 years. For the formal sector, the average age of businesses was 18.86 years with a median of 13 years, while for all businesses the average age was 12.91 years with a median of 9 years. In this case, formal businesses had been in existence for more years than informal businesses.

4.2. Discussion

Table 2 presents a summary of the results of the logistic regression. The paragraphs that follow are a presentation of the discussions and interpretation of the coefficients as well as the odd ratios.

Table 2. Summary of the results of the logistic regression

	Coef.	Std. Err.	P-value	Odds Ratio	95% interval	Confidence
					Lower	Upper
Constant	-.472	.112	$p < .001$.624		
Access to Finance	-.111	.023	$p < .001$.895	.856	.936
Access to Land	.232	.024	$p < .001$	1.261	1.204	1.321
Access to Electricity	.010	.022	.660	1.010	.967	1.054
Crime, theft and disorder	-.172	.026	$p < .001$.842	.800	.886
Corruption	.314	.025	$p < .001$	1.730	1.304	1.438

In a logistic regression the coefficients are an indication of the change in the log odds of the result for a one-unit increase in the predictor variable. All the variables except for access to electricity were found to be significant determinants of formal status for businesses. The coefficient for access to electricity, access to land and corruption were positive, implying that an increase in one of these variables was more likely to increase the probability of a firm being formal, that is, businesses in the informal sector are more likely to be persuaded to formalise when there is an improvement in any of these variables, in the case of corruption this means less corruption. Ingram et al., (2007) analysed the determinants of businesses' decision to locate in the informal or formal sector, based on the hypothesis that a business' decision concerning formality depends on a model of profit maximization. Using the World Bank's enterprise surveys in six countries, namely Kenya, Uganda, Tanzania, Zambia, South Africa and Senegal, they found that the businesses' decision to operate in the informal sector is correlated with the benefits and costs associated with the investment climate. They found that the incidence of formality is positively correlated with perceptions concerning the availability of electricity supply, access to finance and access to land, and negatively correlated with the rate of taxation and corruption. Thus, based on their findings, improvements to the investment climate, which enhances the benefits of formality and reducing the costs, would result in more businesses opting to operate in the formal sector as compared to the informal sector. The coefficients for access to finance and crime theft and disorder had negative signs, implying that a one unit increase in one of

these variables as an obstacle to formal status was more likely to lower the probability of a business to seek formal status. Thus, a lack of access to finance and an increase in crime, theft and disorder can be viewed as obstacles that hinder businesses in the informal sector to secure formal status. Dabla-Norris and Koeda (2008) tested the relationship between informality and bank credit using a firm-level data set for 26 countries in Eastern Europe and Central Asia. They found strong evidence of a negative relationship between informality of businesses and access to bank financing. Further, their results indicated that this negative relationship between informality and access to credit is deeper in countries that have weak tax administration and higher costs of tax compliance. Their study also found that informality is strongly associated with a higher degree of financing challenges, implying that businesses that struggle to get funding are likely to locate in the informal sector.

The odd ratio for access to finance and crime, theft and disorder as obstacles to formal status were estimated at .895 and .842 respectively. This implies that a unit increase in any of these two variables led to a decrease in the interest of businesses operating in the informal sector to secure formal status. A unit increase in access to finance being an obstacle leads to a decrease of 10.5% $((.895 - 1) \times 100)$ in the odds of securing formal status while a unit increase in crime, theft and disorder being an obstacle leads to a decrease of 16 % $((.84 - 1) \times 100)$ in the odds of being formalised. Dabla-Norris, Gradstein and Inchauste (2008) also concluded that the quality of the legal system of a country is a key determinant of informality. Their findings are consistent with literature, which postulated that increasing the probability of being caught, and the punishment forces businesses to locate in the formal sector.

The odds ratios for access to land, access to electricity and corruption were estimated at 1.26, 1.01 and 1.73 respectively. This implies that a unit increase in any of these three variables led to an increase in the quest to achieve formal status. A unit increase in access to land being an obstacle led to an increase of 26% $((1.26 - 1) \times 100)$ in the odds of achieving formal status while a unit increase in corruption led to an increase of 37% $((1.37 - 1) \times 100)$ in the odds of being formalised. Mawejje and Okumu (2016) found that the efficiency of the regulatory framework defined by the degree to which courts are fast in resolving disputes and the degree of affordability, is highly correlated to tax evasion and informality. They also concluded that businesses opt for informality in response to inadequate public

utilities provision by the state as well as high corruption levels in the business environment.

5. CONCLUSION

This paper investigated the impact of the business environment on businesses' decision to formalise. Most African countries have experienced a significant increase in the growth of the informal sector to an extent that this sector now forms a big proportion of their national income. The paper made use of data from the World Bank enterprise surveys to analyse informal sector businesses in four African countries, namely Democratic Republic of the Congo, Ghana, Kenya and Madagascar. The results indicate that obstacles such as access to finance, access to land, high levels of crime and corruption are significant determinants, which hinder businesses to acquire formal status. The findings could be used to address the challenges facing the informal sector business in developing countries to facilitate their decisions to ultimately consider moving their operations to the formal sector.

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