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Which Resource Acquisition Acts Drive Growth of Informal Firms? Evidence from Zambia

Yee Kwan Tang

Adam Smith Business School, University of Glasgow, Glasgow, UK

Victor Konde

Technology and Innovation Section, Technology, Climate Change and Natural Resources

Management Division, United Nations Economic Commission for Africa, Addis Ababa,

Ethiopia

Purpose

The study seeks to differentiate informal firms with high growth prospects by their resource acquisition acts, and to improve identification of growth-oriented informal firms for effective design and targeting of support measures.

Design/Methodology/Approach

An original set of firm-level data was collected using face-to-face survey in Lusaka, Zambia. Six clearly defined criteria were used to sample informal firms, apart from general informal business. Regression analyses were conducted to test the association of different resource acquisition acts with two growth dimensions: number of employees and business earnings of the 325 informal firms sampled.

Findings

Accessing clientele beyond local market, linking up with formal businesses, and acquiring information and knowledge via online sources were found influential to growth in business earnings. Surprisingly, acquisition of finance and skills showed no effect. Employment expansion, though widely used, may not be a stable indicator of informal firm growth.

Research Implications

The study highlights the relevance of the emerging entrepreneurship perspective to understanding the topic. It cautions against pre-setting a size threshold for sampling informal firms; and against relying on employment expansion as the sole proxy of growth.

Practical Implications

Our findings prompt a rethink of the effectiveness of conventional support programmes to drive growth of informal firms such as funding and training. Directing support measures to target growth-oriented informal firms will lead to creation of decent and sustainable jobs, and formalisation.

Originality

With an original firm-level dataset, the study challenges a long-held assumption that growth of informal firm is negligible; shows that segments of informal firms are sustainable and could attain significant growth; and derives new insights into researching and supporting informal firm growth.

Keywords: Entrepreneurship, African SMEs, Microenterprises, Resource acquisition, Business linkages, High-potential firms, Informal firm growth

1. Introduction

The growth of informal firms in developing countries could potentially uplift millions of households out of poverty, considering the large proportion of workers they employ and products they offer to underserved communities (Sonobe *et al.*, 2011; Sasidharan and Raj, 2014). However, only a proportion of informal firms are growth-driven and likely to create decent and sustainable jobs as well as serve as conduits for business incubation and technical and business skills training (Webb *et al.*, 2013; Welter *et al.*, 2015; Williams *et al.*, 2017). Identifying this segment of informal firms remains a challenge but is imperative to help policymakers, development agencies and researchers to recognise informal firms that hold greater chances for growth, and to design more targeted and effective measures to help such firms to grow.

Our focus on informal firms is more specific than the broader scope of informal economy or informal business in most studies that cover street vendors, self-employed and sole traders. We define informal firm as *'private production or sales units of legal goods and services that employ hired labour but are not registered with the official business registrar and tax authority'*. There is no universal definition of 'informal firm' and different dimensions are used to define informality though registration status being the most widely adopted (Benjamin and Mbaye, 2012; Medvedev and Oviedo, 2016). Nonetheless, the registration status of firms follows a continuum that involves different registration and legislative dimensions (Joshi *et al.*, 2014; Webb *et al.*, 2014). Our definition is in line with De Castro *et al.* (2014) and Rothenberg *et al.*'s (2016) definitions, the 15th ICLS definition of informal sector enterprises (Husmanns, 2005), and that of Zambia Central Statistical Office (2014).

Most informal firms are limited in resources and skills, hence, have lower productivity than larger formal firms (Nichter and Goldmark, 2009; La Porta and Shleifer, 2014). They face magnified constraints comparing to their formal peers of similar size in obtaining external

resources such as formal finance and public goods, due to the lack of formal registration and hence business bank accounts, track records and credentials (Masakure *et al.*, 2009; Stein *et al.*, 2013).

To help informal firms overcome these constraints, governments and other development agents have designed a multitude of entrepreneurship, financial and business support programmes in the hope that benefiting informal firms will grow and formalise. Nonetheless, the lack of precise targeting of these programmes often diverts resources to create more marginal businesses than foster growth-oriented ones (Shane, 2009).

The literature on high-growth firms (also termed gazelles, high-potential or high-impact firms) provides considerable evidence that “*a few rapidly growing firms generate a disproportionately large share of all new net jobs compared with non-high-growth firms*” (Henrekson and Johansson 2010, p. 240). As a large proportion of informal firms are subsistence-based rather than opportunity-driven (Webb *et al.*, 2013); thus, directing business support towards the latter is deemed more practical for effecting growth (Mason and Brown, 2013; McKenzie, 2017).

The study aims to improve identification of informal firms that have higher growth prospects, and to contribute towards designing targeted measures for these firms (Benhassine *et al.*, 2018). All firms need resources to grow. We draw upon the resource-based view (RBV) and the entrepreneurial perspective to firm growth to posit that a firm’s resource acquisition act is indicative of the firm’s aspiration and capability to seek growth (Jarillo, 1989; Cai *et al.*, 2014). Informality exacerbates barriers to acquire resources but informal firms that are assertive and committed to growth will proactively seek resources regardless. Building on this understanding, the research question we ask is: *What resource acquisition acts differentiate growth-oriented informal firms from non-growers?*

We adopt Nason and Wiklund's (2018:33) definition of firm growth as '*the increase in a firm's size from one point in time to another*'. Size is subject to different measures, including number of employees, market assets, sales turnover, and earnings (Dang *et al.*, 2018). The study extends a predominant focus on employment growth in the extant literature and captures growth by increase in not only *number of employees* but also *business earnings (profits)*. The former dimension corresponds to a key policy and development focus on job creation; and the latter is a business objective indicative of a firm's sustainability and competitiveness as well as wealth generation (Dobbs and Hamilton, 2007; Achtenhagen *et al.*, 2010).

The contribution of this study is twofold. *First*, we advance the empirical evidence and knowledge pertaining to informal firm growth. By capturing two growth dimensions, the study offers a fuller and more realistic picture of the heterogeneous growth paths of informal firms. More importantly, we demonstrate that growth in business earnings is a more stable and robust measure of informal firms with higher growth prospects than number of employees. The measure is more reliably link to firm sustainability and competitiveness. *Second*, we establish several resource acquisition acts to be highly predictive and explanatory of growth of informal firms in terms of business earnings. We further identify some key resources and their sources that appear influential to effect growth of these firms. *Theoretically*, we advance a dynamic perspective to understanding and predicting informal firm growth potential through external resource acquisition endeavour. This approach addresses the limitation of relying on firm and demographic characteristics (e.g. size, age, gender, education level, etc.) as common proxies of these firms' static and inherently limited resource base. *Practically*, the findings will help policymakers and development agencies design indicators for identifying high quality and growth-oriented informal firms worth supporting, not only to create employment but also to create wealth. This will help tailor and target support measures to meet the specific conditions

and needs of these firms more effectively, thus, optimise resource allocation and utilisation to realise development impact.

The rest of the paper is organised as follows. The next section reviews literature on informal firm growth, and on the role of resources and resource acquisition in explaining firm growth based on the RBV and entrepreneurship perspective. Section 3 explains the research methodology. Section 4 presents and discusses the findings. The paper concludes with implications for research and policy, accompanying with directions for future research.

2. Literature Background

2.1. Conventional and emerging view of informal firm growth

Research on growth of informal firms remains largely underplayed or ignored in existing literature (Sonobe *et al.*, 2011; Sasidharan and Raj, 2014). Informal firms are conventionally portrayed to be tiny and subsistence-based business entities that are low in skills and productivity, confined to marginal business activities, produce and/or sell low-quality products and hence have limited growth prospects in general (La Porta and Shleifer, 2014; Nguyen *et al.*, 2014). As the informal sector continues to expand amidst economic and social development, researchers are urged to seek for fuller explanation of the development prospect of informal firms beyond the conventional views (Grant, 2013; Welter *et al.*, 2015; Darbi *et al.*, 2018).

The emerging entrepreneurial perspective on informal firms sheds light on the entrepreneurial, dynamic and innovative orientation of some informal firms in circumventing external constraints, particularly weak institutions and costly access to resources in developing countries to sustain and/or grow a business (Williams *et al.*, 2017; De Castro *et al.*, 2014). This perspective corresponds to the view that decisions of whether to remain informal and at which level of informality to operate the business are made actively by some firms based on personal and/or business objectives (Webb *et al.*, 2013; Medvedev and Oviedo, 2016; Williams *et al.*,

2016). This challenges the long-held assumption that informal firms are primarily survivalists excluded passively from the formal sector and made to stay informal (Maloney, 2004).

A few early works (ILO, 1972; House, 1984; Field, 1990; Ranis and Steward, 1999) suggested that some informal firms could be opportunity-driven and growth-oriented. Ranis and Steward (1999) attributed informal firms in the ‘modernised segment’ to be larger in size and more capital-intensive, use more skills and technology, higher in labour productivities, and generate more incomes than their peers. These informal firms appear almost undistinguishable from, and can be as competitive as, their formal counterparts. A study by Grimm *et al.* (2012) further revealed and coined a segment of informal firms as ‘constrained gazelles’, which were found to be more entrepreneurial with greater growth prospects than previously assumed.

These scant yet compelling findings prove that there are growth-oriented informal firms. Thus, identification of their unique attributes is realistic and strategically important to enable design of precise support measures that are tailored to drive informal firm growth in order to derive greater development outcomes (Williams *et al.*, 2016; Benhassine *et al.*, 2018; De Giorgi *et al.*, 2018). High growth firms fuel the aggregate growth of the micro-, small- and medium-sized firm (MSMF) sector (Nichter and Goldmark, 2009; Burvill *et al.*, 2018; Goswani *et al.*, 2019). In this regard, informal firms of high growth potential are more likely to be drivers of decent job and wealth creation; and be stimulated to formalise their businesses (Sonobe *et al.*, 2011; Joshi *et al.*, 2014; Demenet *et al.*, 2016).

2.2. Resource acquisition and firm growth

Firms, be they formal or informal, require resources to grow (Lockett *et al.*, 2009; Burvill *et al.*, 2018). The RBV postulates a firm’s growth intention, strategic choice, path and outcome being shaped by its resource base (Wernerfelt, 1984; Barney, 1991). Studies maintain a broad definition of resources ranging from tangible (e.g. human resources, capital, properties) to intangible ones (e.g. intellectual properties and goodwill) (Wernerfelt, 1984). Existence of

resource heterogeneity explains why not all firms, operated in the same external context, see growth as a business goal nor have the capacity and/or commitment to pursue growth (Masakure *et al.*, 2009; Davidsson *et al.*, 2010; Ali, 2018). Webb *et al.* (2013), for example, found that variation in resources and allocation tactics induces different impact on growth of microenterprises in comparable impoverished contexts. Accordingly, even microenterprises could achieve competitiveness and growth by deploying resource-based strategies (Agyapond *et al.*, 2021).

Yet, most informal firms lack resources. Relying on proxies of existing resource base of the firm such as firm size, demographics of the owner-manager and employees prescribes a static and largely inferred explanations of the growth potential of firms. Recognising this limitation, we posit the endeavour to acquire and access external resources being a more precise indicator of a firm's interest, commitment and capability to attain growth (Tang, 2011; Furlan *et al.*, 2014; Ngoasang and Kimbu, 2019). In this respect, the integration of the entrepreneurship perspective to RBV could enhance explanations of the subject.

Acquiring and mobilising external resources that the firm does not readily own and/or control is a core entrepreneurial act to pursue growth opportunities (Stevenson & Jarillo, 1990; Cai *et al.*, 2014). Research show that faster growing entrepreneurial firms acquire and use more external resources than their peers do (Jarillo, 1989; Furlan *et al.*, 2014). Existing studies provide abundant evidence of the association of access to external resources, such as finance (Biggs and Shah, 2006; Fowowe, 2017; Agyapong *et al.*, 2018), business information and knowledge (Robson and Bennett, 2000; Johnson *et al.*, 2007) and skills (Robertson, 2003; Foreman-Peck *et al.*, 2006) with the growth of MSMFs. Brown *et al.* (2017) further refuted the belief that sufficient internal resources is a necessary condition for achieving growth and emphasised the effect of external acquisitions and connections. Nonetheless, the nature of

association (i.e. positive or negative) is not often conclusive, and measures of firm growth vary across studies.

2.3. Resource acquisition dilemma of informal firms

Micro- and small-sized firms (MSFs) in resource-scarce developing contexts, as in most African countries, face steeper constraints and costs in acquiring external resources than their peers in developed countries (Webb *et al.*, 2013; Ngoasong and Kimbu, 2019; Tang and Konde, 2020). In specific to informal firms, the lack of formal registration status and legal documentations exacerbates the barriers to acquire resources (Webb *et al.*, 2013; Demenet *et al.*, 2016). The ‘danger’ of becoming visible, for example, has deterred many informal firms to access external resources essential to expanding their business (Nitchter and Goldmark, 2009; Ngoasong and Kimbu, 2019).

On the other hand, public and private business development support agencies have in recent years made available a variety of resources to informal firms, including financial ones such as grants, low-interest micro-loans; and non-financial ones such as infrastructure (e.g. trading spaces, electricity and water), technical and management skills training, business advice and linkages (David *et al.*, 2012; Traore and Ouedraogo, 2015). The lack of formal status is increasingly found not to be as significant a barrier to accessing bank services and loans as previously perceived (De Castro *et al.*, 2014; Amin and Islam, 2015). Furthermore, there are alternative sources of resources, such as community/hometown associations, cooperatives, and other ethnic and social networks that are readily accessible by informal firms (Grant, 2013; Ngoasong and Kimbu, 2019).

Building on the above understanding, we argue that informal firms that are more assertive and/or capable than their average peers to acquire key resources externally are more likely to grow and achieve growth. Accordingly, our central hypothesis is: *Informal firms’ resource acquisitions are positively associated with their growth.*

3. Methodology

3.1. Empirical location

We collected an original set of firm-level data from Lusaka – the capital and commercial centre of Zambia in southern Africa. Zambia has made progress in promoting the MSMF sector since the 1990s and has promulgated a MSMF development policy since 2008 to enhance policy targeting and support. The country’s relatively stable and competitive business environment to that of its sub-Saharan African (SSA) peers favours the spread of entrepreneurial spirit (Kew, 2015). Zambia has been ranked among the top ten in the SSA region in the World Bank’s Ease of Doing Business survey for the last few years: in 2020, it ranks 5th of 48 countries in the sub-Saharan (SSA) region and 85th of 190 countries globally. Zambia tops Kenya and South Africa in the ‘Starting a Business’ category, ranks 2nd in the SSA region for ‘Paying Taxes’ and 4th in the global ranking (1st in the region) for ‘Getting Credit’.

Yet, the urban informal sector in the country is still pervasive. Estimates suggest informal MSFs account for over 95% of total MSEs (Shah, 2012). The informal sector employs over 83 per cent of the total working population of the country and shares 65 per cent of the total non-agricultural employment. In urban areas, the sector employs over 72 per cent of the working population (Zambia Central Statistical Office, 2015). Specifically, the city of Lusaka accounts for about 18 per cent of the total population and labour force of the country. These figures are comparable to the average figures of other SSA countries (ILO, 2014). In sum, Zambia provides an intriguing and representative context to derive relevant insights to informal firm growth for other African countries and developing contexts in general.

3.2. Sampling

We used six criteria to identify our sample. Specifically, the firm:

- i. was not registered with both the Patents and Company Registrations Agency (PACRA) and the Zambia Revenue Authority (ZRA). That is, it did not have a

business registration number nor a tax pin at the time of the survey. This followed a common approach (e.g. De Castro *et al.*, 2014; Rothenberg *et al.*, 2016) to minimise sample bias of using only one registration status (Medvedev and Oviedo, 2016).

- ii. had at least one employee, excluding self-employed.
- iii. was operating from a fixed business premise.
- iv. was operated either in the secondary or the tertiary business sector. While we included firms in the wholesaling and retailing sector, we excluded street vendors and hawkers, which do not meet our focus on the unit of a firm mentioned above.
- v. had been in operation for more than four years prior to 2017, the year in which the survey was conducted. This enabled us to collect 3-year retrospective data on their business activities and performance.
- vi. had the owner-manager – the key informant - available to participate in the survey.

Other than these criteria, the sample comprises a mix of firm units of different age, sizes, owner and employee attributes, and business activities.

3.3. Data collection approach

Informal firms are not registered in official firm databases and directories; they are also geographically widespread in the city of Lusaka. Under these and our resource constraints, we focused our survey on three selected localities (around Kalingalinga-Mutendere area and the Central Business District) known to have a high concentration of these firms based on consultations with local business service providers (BSPs) and national statisticians¹. This sampling approach is common among research on informal firms in developing countries where records and physical addresses are largely missing or unreliable (Fu *et al.*, 2018; Rothenberg *et al.*, 2016). Focusing on firms in specific localities of one city confines the sampling of firms to similar external context, thus, helps control variations in external factors.

We visited firms personally and conducted the face-to-face survey in the business premises of firms that met the sampling criteria. The face-to-face survey method helped build trust and improved responses in a context in which personal contact is important. It also allowed the researchers to clarify any question on-site to ensure consistency of respondents' understanding. In total, 325 usable questionnaires were retained for the final analysis, representing 91.3 per cent usable response rate of the total 356 questionnaires collected. Descriptive statistics of key firm attributes are reported in Table 1.

[Table I Near Here]

We compared our primary findings with the 2013 World Bank Enterprise Survey (WBES) on Zambia in assessing the growth of informal firms. The survey contains a random sample of 720 MSMFs in total, of which only 22 firms (i.e. 3% of the total responses) were reported to have no registration status at the time of the surveyⁱⁱ. These 22 firms employed 1 to 40 workers; the firm size distribution is comparable to that of our sample. The survey was conducted in 2012 and firms were asked to report their number of employees and their annual sales revenues in the years of 2009 and 2011, respectively. We used these data to calculate the growth rate of the 22 firms in the WBES Zambia dataset and compared it to that of our sample.

3.4. Constructs and measures

3.4.1. Dependent variables - Growth of informal firms

The study used dual dimensions – *increase in number of employees and increase in business earnings* – to operationalise firm growth. This corroborates the proposition of Davidsson *et al.* (2006:5) that *firm growth '[manifests] itself in various ways, and consequently it can have differential effects on several different levels'*.

An increase in number of employees supports the development goal of job creation; and it is considered as the simplest and most convenient measure (Dobbs and Hamilton, 2007). However, increasing employee number is seldom a growth objective from a business

perspective because it infers increased management complexity and costs (Achtenhagen *et al.*, 2010). Therefore, we included increase in business earnings as another growth measure because profitability is deemed as the most desirable long-term growth objective by a majority of businesses (Robson and Bennett, 2000; Medvedev and Oviedo, 2015). This dimension of growth is more indicative of a firm's sustainability and competitiveness (Amin and Islam, 2015; Brown *et al.*, 2017).

Respondents were asked to report whether number of employees and business earnings increased, decreased or remained unchanged in each year from 2014 to 2015 and from 2015 to 2016, respectively, and then to indicate the percentage change for each year.

3.4.2. Independent variables – Resource Acquisitions

Six variables were used to measure the acquisition of external resources by informal firms. They are:

Access to clientele outside local market. This indicates access to wider customer base for extended business resources and experiences in different locations (Benhassine *et al.*, 2018; McElwee and Wood, 2018). This was measured by a 'Yes'(1) and 'No'(0) answer.

Business linkages with formal business. Business relationships could compensate for weak institutions and high cost of resources in most African countries (Briggs and Shah, 2006). Specifically, business performance of informal firms often benefits from linkages to formal firms with enhanced access to market opportunities and business resources such as knowledge, skills, contacts as well as credibility, visibility and track records (Chen, 2012; De Castro *et al.*, 2014). We asked respondents to indicate whether, in 'Yes'(1) or 'No'(0), they had built business linkages (as a supplier; customer; contractor; business associate or partner) with formal firms.

Acquisition of external funding. Respondents were asked whether they had successfully obtained external funding within the 3-year period.

Acquisition of information and knowledge. The study captured acquisition of information and knowledge through two sources: 1) private business development services (BDS) providers; and 2) online sources, respectively. Respondents were asked to rate, using a 7-point Likert Scale from ‘Not at all’(1) to ‘Exceptional’(7), the extent they had used the sources individually to acquire market and business information and knowledge during the 3-year period.

Acquisition of skills through external trainings. Regularly attending external trainings to acquire new skills is deemed important for enhancing business competitiveness and success of smaller firms in dynamic environments (Robson and Bennett, 2000; Ladzani and Van Vuuren, 2002). Firms were asked to indicate ‘Yes’(1) or ‘No’(0) their employees had attended external skills training during the 3-year period measured.

3.4.3. Control Variables

We controlled for eight variables that may influence the association between firms’ resource acquisitions and growth. These include *industry type* (Masakure et al., 2009); *firm size in terms of employee number at the base year* (Bentzen et al., 2012); five human resources attributes that include *owner’s age, owner’s gender, average age of employees, gender proportion of employees and the highest education of employees* (Masakure et al., 2009; Goedhuys and Sleuwaegen, 2016; Obeng, 2019); and *family business* (Khavul et al., 2009; Obeng, 2019).

Table 2 presents the Pearson correlation coefficient of all the variables in this study.

[Table II Near Here]

3.5. Data Analysis

To test the central hypothesis that *informal firms’ resource acquisitions are positively associated with their growth*, we conducted two sets of multiple regressions associating the six resource acquisition acts defined above (*i.e. access to clientele outside local market; business linkages with formal business; acquisition of external funding; acquisition of information and*

knowledge from BDS providers; acquisition of information and knowledge from online sources; and acquisition of skills through external training) with growth of informal firms in *number of employees* and in *business earnings*.

4. Findings and Discussion

We first established evidence of informal firms that have achieved growth in our sample. The average number of employees rose from 4.34 per firm in 2014 to 6.46 per firm in 2016; about 57 per cent of the 325 firms (i.e. 186 firms) recorded a 3-year growth rate in number of employees in the period. It is worth noting that 26 of the 325 firms (8%) have grown from a micro-sized firm (fewer than 10 employees) to become a small-sized firm (between 10 and 49 employees); and 15 of these 26 achieved such transition within the 3-year period we measured. In terms of growth in business earnings, 189 of the 325 firms (57%) reported an increase from as low as 4 per cent to a high of 80 per cent in the period. Our findings are in line with performance of those non-registered firms recorded in the 2013 WBES on Zambia.

We then conducted the two sets of multiple regressions. The variance inflation factor (VIF) values of all regression models are close to 1 and the tolerance statistics are well below 0.2, suggesting that multicollinearity is unlikely to be a problem within our data. Table 3 presents the regression results.

[Table III Near Here]

4.1 Resource acquisition and firm growth in number of employees

Only two variables, namely *access to clientele outside local market* (0.100, $p=0.096$) and *acquisition of information and knowledge from online sources* (0.116, $p=0.080$) were found to be significant at 0.1 level in association with growth in number of employees. The findings infer that informal firms that have access to a wider clientele as well as business networks outside their local nexus, and those that are more active in using online sources to acquire information achieved higher growth in employee number in the 3-year period measured.

Nonetheless, we are aware of the low explained variance at only 8.3 per cent ($R^2 = 0.083$) by the predictors of employment expansion of informal firms. This may suggest that growth in number of employees is characteristically random (Coad, 2009), or is predicted by many other factors that are not fully captured in this study. Either way, this shows that the sole use of number of employees as a growth indicator of informal firms falls short in providing a clear and realistic picture. Further research to verify and establish stronger explanation and prediction of this dimension of growth is called for, given that job creation is a core development objective in the majority of developing countries, including African countries.

4.2.Resource acquisition and firm growth in business earnings

The regression model of *growth in business earnings* shows stronger predictability that explains over 20 per cent of variability ($R^2 = 0.206$), which is comparable to Goedhuys and Sleuwaegen's study (2010) on high-growth firms in Africa. The explained variance of Model 2 increased largely from 6.6% of Model 1.

Three variables were found to be significantly associated with business earnings growth at 0.05 level, and one variable was significant at 0.1 level. *Access to clientele outside local market* (0.330, $p = 0.000$); and *linkages with formal business* (0.111, $p = 0.039$) were significantly and positively associated with increase in business earnings. The findings resonate Goedhuys and Sleuwaegen's (2010) suggestion that firms expanding operations outside local markets enjoy stronger learning effect, lower unit costs and wider customer base to generate higher returns. The findings also provide support to the significance of external business networks in driving growth of firms, particularly smaller ones (Nichter and Goldmark, 2009; Campos and Gassier, 2017).

Surprisingly, acquisition of *information and knowledge from private BDS providers* was found to be negatively associated with growth in business earnings (-0.158, $p = 0.008$). The finding deviates from existing evidence of the positive impact of the use of external business

advice services on firm performance (Robson and Bennett, 2000; Widerstedt and Mansson, 2015).

Small firms in Africa rarely use external business advice services (Obeng and Blundel, 2015). Accordingly, one might expect that informal firms that sought resources from BDS providers more intensively were facing significant business problems at that specific period. This then translated into a negative relationship with growth in business earnings of the same period being measured; benefits from employing professional business advice may take a longer time to display. Moreover, successful assimilation of knowledge obtained from BDS providers to supporting growth requires the receiving end to have certain level of absorptive capacity to internalise and apply the knowledge. Many African firms, particularly informal ones have low levels of such capacity.

Sample firms that *acquired information and knowledge more intensively from online sources* achieved higher increase in business earnings. The finding provides some evidence to the positive impact of internet use on profitability of small firms in the context of Africa (Esselaar *et al.*, 2007; Chege *et al.*, 2019). This means of information and knowledge acquisition is cheaper, simpler, less time-bounded, and more flexibly accessible by resource-constrained informal firms than traditional sources (Tang and Konde, 2020). While statistical significance of this factor is at the 0.1 level (0.108, $p = 0.082$), further studies to verify the association is warranted.

Surprisingly, *acquisition of external funding* was not significantly associated with both dimensions of growth, when the lack of financial resources is commonly presumed as the main growth inhibitor of micro- and small-sized firms (Robson and Obeng, 2008; Ali, 2018). There could be several reasons explaining this lack of an association. *First*, it may simply because the amount of the funding is too small to make any impact (Brown *et al.*, 2017). *Second*, fund received may be used for bailing out a struggling business rather than growing a business. *Third*,

firms may not use the fund in increasing the workforce. *Fourth*, effect of investment in business operations and/or acquisition of other resources (e.g. equipment and fixture) takes time to accrue (Nguyen et al., 2014). *Fifth*, firms have weak financial literacy, that is, they may lack ability to make informed judgments and take effective decisions regarding the use and management of the money (Adomako *et al.*, 2016; Fatoki, 2017).

Similarly, *acquisition of skills through external formal training* was not associated with either growth dimension. Our finding adds to the inconclusive findings in current studies on training and business growth of smaller firms (Foreman-Peck *et al.*, 2006; Ali, 2018).

Regarding control variables, *firm size at the base year* and *employees' age* had a significant negative association with both growth dimensions, while *owner's age* showed a positive association. The findings are largely consistent with existing studies on growth of firms in Africa (Bigsten and Gebreeyesus, 2007; Goedhuys and Sleuwaegen, 2010).

5 Conclusions and Implications

This study provides support for research on growth-oriented informal firms and the advocates for target and effective support measures capable of driving growth, and as a result, uplift the living standard of millions of workers and create wealth for their countries (Grimm *et al.*, 2012; Benhassine *et al.*, 2018; De Giorgi *et al.*, 2018). Specifically, the study offers greater insights into resource acquisition as a precise explanator and predictor of informal firm growth. Here, the pursuit to acquire external resources is posited as a direct behavioural manifestation of the growth aspiration, commitment and capability of informal firms.

In sum, the study offers two major findings: 1) growth in business earnings is a more stable and predictable measure for assessing growth potential of an informal firm than growth in number of employees; and 2) three resource acquisition acts, namely *access to clientele outside local market*, *linkages with formal business*, and *acquisition of information and knowledge from online sources* as key measures that drive informal firm growth in business

earnings. These three aspects can inform the design of indicators, and indirectly the respective measures that can be used by the private and the public sector to identify and support informal firms with stronger growth prospects.

For instance, a number of indicators can be drawn from *access to clientele beyond local market* (e.g. motivations, steps taken, presence of existing partners and/or outlets for conducting business beyond the firm's location). Similarly, a set of indicators can be drawn from *linkages with formal business* (e.g. contractors, suppliers, collaborators, etc), and from *information and knowledge from online sources* (e.g. extent of use of online information for product development, marketing, sales, and partnerships; degree of engagement in online knowledge forums and platforms, etc).

5.1 Contributions and Implications for Research

For researchers, we demonstrate that growth in business earnings is a more stable measure for assessing informal firm growth potential than growth in number of employees. This is not surprising considering that these firms are generally striving to optimise costs and maximise profits, which often means minimising growth in employees (i.e. a major cost item). In sum, growth in business earnings is more indicative of a firm's sustainability and competitiveness (Achtenhagen *et al.*, 2010; Amin & Islam, 2015).

Research on informal firms need to appreciate and incorporate different growth dimensions beyond the predominant focus on employment expansion in order to establish a comprehensive picture of their diverse growth prospects. Future research could employ firm growth dimensions that could feasibly be captured in informal business environments. For instance, *increase in physical assets* (e.g. business premises; tools, equipment and machinery, etc.) may indicate not only expansion in size but also business sophistication over a period of time. Physical assets could be used by informal firms as collateral if they wish to obtain credit from financial institutions. Similarly, *increase in product lines*, which signals a diversification

of revenue streams and more efficient or creative use of existing resources and skills, is another possible measure of informal firm growth. This may also capture the firm's increasing knowledge base and commitment to innovate.

Further, researchers should be cautious about imposing a size restriction in the definition of informal firms for statistical purposes (e.g. five or fewer employees) (see Hussmanns, 2005). This imposition of size limit serves no or limited purpose for two reasons. First, there is no scientific, legal and administrative reason why a firm that is not registered but has more than five employees will be counted as not informal. Second, growing firms are likely to cross that limit before they formalise, if at all. Taken together, the proportion of informal firms that may have grown will be poorly studied as they are not captured either as formal firms or informal firms under a size restriction.

From a theoretical perspective, the study highlights the shortcomings of a static resource-based view to assessing growth potential of informal firms. Research on dynamic firm behaviour and act such as networking, learning, and capacity building that benefit the upgrading of informal firms' existing resource base may generate more practical insights into explaining and predicting their growth (e.g. Grant, 2013; Obeng, 2019). Specifically, further research is needed to develop and test some of the suggested indicators based on the three broad resource acquisition acts that were found to be influential to informal firm growth in this study. The next interesting and important question to ask will be: *Under what circumstances and/or contexts do these resource acquisition acts create stronger effect on firm growth?*

In the same vein, the lack of association between informal firm growth and a number of presumably important factors, such as accessing finance and attending external skills training, or the negative association with accessing private BDS providers, demands further research attention. It is foreseeable that firms in trouble seek BDS providers or the BDS providers focus on firms that are not growing. It may also be possible that funding is made available for reasons

other than purely growth prospects (e.g. social and political considerations). Further, deficiency in certain specialised skills and know-how (e.g. financial literacy; absorptive capacity) may undermine the optimal utilisation of these resources to effect growth (Webb et al., 2013; Ali, 2018). Accordingly, simply using formal education levels as a proxy of skills and knowledge (e.g. Sonobe *et al.*, 2011; Goedhuys and Sleuwaegen, 2016) or quantity of funding awarded are inadequate and overly simplistic to provide concrete research insights (Webb *et al.*, 2013). Future research that examine potential mismatch of skills and knowledge; specialised skills and knowledge most needed by informal firms seeking growth; and how these skills and knowledge could effectively be diffused to (e.g. the use of digital vs. traditional channels) and assimilated by informal firms (e.g. ways to enhance absorptive capacity) (Ladzani and Van Vuuren, 2002; Pilz *et al.*, 2015) may be more insightful to help develop relevant support measures for growth-seeking informal firms.

5.2 Implications for policy

For policymakers, support measures directed at growth-oriented informal firms could achieve the objectives of job and wealth creation as well as empower sustainable growth of informal firms. In this regard, placing emphasis on support measures that promote and enable growth in business earnings better matches the interest of growth-oriented businesses by helping them establish stronger financial health, which in turn helps attain the policy agenda of creating decent and sustainable jobs (Davidsson *et al.*, 2009).

Indicators of growth aspirations of firms should be articulated in support measure design and outcome assessment. In this study, we suggest growth aspirations are manifested in observable behaviours and activities such as firms conducting business outside their local markets and with formal counterparts, and acquiring knowledge using new technologies (i.e. ICT). These behavioural attributes reflect the intention, will, commitment, capacity as well as track records of firms to improve their business operations. A number of precise indicators of

growth-oriented firms could be drawn from the behavioural attributes identified here to inform development and delivery of specific support measures. To this end, policymakers may need to differentiate support measures aimed at improving business conditions for informal businesses in general from bespoke programmes that specifically seek to empower and fuel growth of high-potential informal firms.

Furthering the emphasis on growth aspirations above, policy focus on identifying and fostering sectors and firms with a younger workforce that is ambitious, committed, adaptive and innovative to pursue growth through new business opportunities is justified (Kew, 2015). Young people are in general more risk tolerant, proactive, physically fit, and receptive to new technologies and opportunities (Von Bonsdorff, 2018) but often lack key resources (Kew, 2015). Accordingly, a focus on them is more likely to enlarge the number of opportunity-driven growth-seeking firms rather than merely increasing survivalists within the informal business population. Likewise, support components that are dedicated to enhancing resource access, channels as well as the skills to build and leverage business relationships with established businesses, competitiveness and growth opportunities of young businesses in addition to incubation and start-up deserve more attention (Bigsten and Gebreeyesus, 2007).

Overall, the findings of this study should prompt a rethink of the effectiveness of conventional support programmes to informal firms. In particular, a critical review of whether these programmes merely help encourage creation of more marginal businesses or actually improve growth prospects of potential firms is required. Our findings suggest that some common measures such as offering funding and training may not foster growth (Ali, 2018). It is possible that the measures are poorly designed and/or delivered, or that the measures are offered to the wrong firms. This echoes Beck and Demircuc-Kunt's (2006) remark that if firms find it optimal to stay small, subsidising them is likely to be ineffective and even counterproductive to promote growth. This leaves questions about overall design of support

measures from attracting and selection to training and mentoring, and assessment of benefiting informal firms (Shane, 2009; Brown *et al.*, 2017).

5.3 Limitations

In respect to limitations, we drew data from informal firms in an urban city in only one African country due to our resource constraints. Although we believe the major implications of this research are not limited to this research context, replication of the study to informal firms in other African and developing country contexts, and in both urban and rural settings, will largely enhance generalisability of the findings. Data, including retrospective self-reported growth figures, were collected from a single informant – the owner of each firm. While the owner is the most knowledgeable informant of informal firms, and secondary data (WEBS) were used for triangulation, seeking data from more than one source will help eliminate potential bias. Similarly, a longitudinal research design that collects growth data a few times per year for a longer period may help enhance validity.

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Table I. Key descriptive data of the informal firms sampled

Factor	Categories of the Factor	Number (% to total)	Min.	Max.	Mean	S.D.
Industry	Adopted International Standard Industrial Classification (ISIC) <ul style="list-style-type: none"> • Secondary (0) (Manufacturing, including construction) 154 (47.4%) • Tertiary (1) 171 (52.6%) <ul style="list-style-type: none"> • Wholesaling and Retailing 83 (25.5%) • Professional Services 88 (27.1%) 		0	1	.53	.500
Firm size (2016)	Number of employees at the time of the survey <ul style="list-style-type: none"> ≤5 208 (64%) 6–19 93 (28.6%) 20–29 14 (4.3%) 30–39 3 (0.9%) 40–49 5 (1.5%) > = 50 2 (0.6%) 		1	56	6.46	3.49
Owner's age	Owner's age at the time of the survey <ul style="list-style-type: none"> < 20 0 		22	78	39.77	9.98

	20–29	52 (16%)				
	30–39	112 (34.5%)				
	40–49	112 (34.5%)				
	50–59	37 (11.4%)				
	> 60	12 (3.7%)				
Owner's gender	<ul style="list-style-type: none"> • Male (0) • Female (1) 	226 (69.5%) 99 (33.5%)	0	1	.30	.46
Family business	The firm was founded and run by family members. <ul style="list-style-type: none"> • Yes (1) • No (0) 	73 (22.5%) 252 (77.5%)	0	1	.22	.42
Employee age	Average age of employees at the time of the survey <ul style="list-style-type: none"> < 20 20–29 30–39 40–49 50–59 > 60 	11 (3.4%) 216 (66.5%) 75 (23.0%) 12 (3.7%) 10 (3.1%) 1 (0.3%)	16	76	27.86	7.17
Employee gender	Average percentage of male employees to total employees. <ul style="list-style-type: none"> 0% Up to 50% >50.1% to <90% 	50 (15.4%) 39 (12.0%) 44 (13.5%)	0	1	0.73	0.37

	>90% to 100%	192 (59.1%)				
Education of employees	The highest education of employees		0	5	2.85	.65
	• Degree holder	4 (1.2%)				
	• Diploma holder	15 (4.6%)				
	• Vocational training holder	65 (20%)				
	• Secondary senior	170 (52.3%)				
	• Secondary junior	47 (14.5%)				
	• Below secondary junior	24 (7.4%)				

Table II. Correlations of variables

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p.
a. Industry	1															
b. Firm size	.205**	1														
c. Owner's age	-.013	.095	1													
d. Owner's gender	.159**	-.051	-.097	1												
e. Average employee age	-.206**	-.001	.520**	-.046	1											
f. Employee gender	-.318**	.031	.086	.636**	.054	1										
g. Education of employees	.280**	.380**	-.007	-.118*	-.102	.069	1									
h. Family business	.097	.223**	.172**	.188**	.055	-.052	.043	1								
i. Clientele outside local market	.069	.273**	-.065	-.046	.012	-.092	.122*	.129*	1							
j. Linkages with formal business	-.019	-.043	-.080	-.089	-.041	.062	.080	-.109*	.138*	1						
k. External skills training	.098	.028	.095	-.002	.003	.039	.124*	.032	-.021	-.033	1					
l. Info and knowledge - BDS providers	.160**	.241**	-.044	-.051	.059	-.021	.175**	.175**	.204**	.126*	.148**	1				
m. Info and knowledge - online	.274**	.283**	-.093	.076	-.067	-.126*	.137*	.137*	.265**	.223**	.136*	.424**	1			
n. External funding	.191**	.047	-.068	.134*	-.037	-.188**	.052	.099	.008	.000	.081	.252**	.153**	1		

o. Growth in no. of employees	.081	-.133**	.047	.051	-.079	-.026	.030	.030	.048	.074	-.027	-.071	.065	.026	1	
p. Growth in business earnings	.020	-.043	-.065	.014	-.236**	-.033	.013	.013	.279**	.169**	-.013	-.088	.120*	-.003	.174**	1
Mean	0.53	4.34	39.77	0.30	27.86	0.734	2.85	0.22	0.25	0.28	0.03	2.10	2.04	0.14	0.7241	0.70

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Table III. Regression Statistics

<i>Dependent variables</i>	Growth in Number of		Growth in Business	
	Employees		Earnings	
	Model 1	Model 2	Model 1	Model 2
<u>Control variables</u>				
Industry type	.076	.067	-.044	-.041
Firm size (number of employees)	-.186**	-.224**	-.044	-.119*
Owner's age	.135*	.163**	.099	.151**
Owner's gender	.072	.086	.038	.094
Average employee age	-.125 ⁺	-.126 ⁺	-.291***	-.300***
Employee gender	.040	.073	-.017	.058
Education of employees	.074	.082	.020	.013
Family business	-.004	-.009	-.022	-.050
<u>Independent Variables</u>				
Access to clientele outside local market		.100 ⁺		.330***
Business linkages with formal firms		.040		.111**
External funding		.040		.033
External skills training		-.056		-.005
Information and knowledge – private BDS providers		-.098		-.158**
Acquisition of information and knowledge – online		.116 ⁺		.108 ⁺

R^2	.052	.083	.066	.206
<i>Adjusted R²</i>	.028	.041	.043	.170
F-ratio	2.171*	1.995*	2.805**	5.757***

Note: N= 325; ⁺p < 0.1; *p < 0.05; **p < 0.01; ***p < 0.001

ⁱ A meeting was held in September 2016 with representatives from development agencies and BDS providers that work closely with informal firms in the country, including Zambia Development Agency, Patents and Companies Registration Authority, TDAU of University of Zambia, sub-regional office of UNECA in Lusaka, Future Search Zambia, Zambia Association of Manufacturers , Entry Point Africa, Zambia Open University, African Entrepreneurship Hub Zambia. The meeting was also attended by some informal firm owner-managers. The meeting served the purpose of understanding the challenges of supporting informal firms, mapping the localities for survey, and testing and refining the questionnaire. A workshop was held in November 2016, funded by ESCR Impact Acceleration Account to introduce and exchange ideas for further refinement.

ⁱⁱ We referred to Question B.6a and Question B.6b on the Zambia 2013 World Bank Enterprise Survey, which ask: 'Was this establishment formally registered when it began operations?' and if yes, 'In what year was this established registered?'. There is no further question to clarify to which agencies or authorities was the firm registered. The proportion of unregistered firms to the total firms surveyed was exceptionally low at only 3%. This appears to contradict the official estimation of the magnitude of informal firms in the country; thus, leaves open a question about the sampling frame and criteria applied in the field by the WBES.