

Informal sector employment creation in South Africa: What can the SESE enterprise survey tell us?

*Frederick Fourie and Andrew Kerr*¹

[Draft paper presented at the ESSA Conference, Cape Town, 3 September 2015]

Introduction

The roots of this paper lie in the work by Fourie (2011), a meta-analysis of research – or the lack of it – on the problem of unemployment in South Africa. The informal sector, which provides a livelihood, income and jobs to millions of people, was identified as a major gap in unemployment research. Especially the analysis of employment and unemployment tends to focus almost exclusively on the formal sector.

Another event of relevance was the 2012 publication of the NDP, and its recommendations regarding (un)employment. Fourie (2013) points out that, in the chapter on ‘the economy and employment’, the NDP ignores informal sector enterprises and their peculiar needs and constraints – both in the NDP’s analysis and policy recommendations. Nevertheless, the NDP wants the sector (plus domestic work) to produce 2 million new jobs by 2030 (NPC 2012: 121-2).

This raises the question whether, and to what extent, the informal sector should be approached, in analysis and policy design, as a sector with employment-generating potential – rather than as a problem sector reflecting the legacy of apartheid, or a buffer or mopping-up facility in times of cyclical lay-offs by the formal sector and/or a sector with no entrepreneurial acumen or development prospects.²

Such an *employment-potential approach* would also be in marked contrast to an approach – prevalent in South African policy circles – which is to deal with informality from the *employed-worker* perspective, i.e. in terms of employment conditions. This is the approach found with the International Labour Organisation (ILO) as well as organised labour (e.g. Cosatu): looking at growing informality as an undesirable aspect of employment conditions in the formal sector. This is about workers increasingly not having secure contracts or benefits such as pensions and medical insurance, about the casualisation of labour, labour brokers, etc. From this perspective it follows that the remedy is to *reduce* informality.

¹ Frederick Fourie is a research fellow in the Dept of Economics, Free State University, research coordinator of REDI3x3 and research affiliate at SALDRU, UCT. Andrew Kerr is a senior research officer at DataFirst, UCT. The authors wish to acknowledge REDI3x3 funding for the project.

² See, for example, Ligthelm (2013), who compares informal and formal sector small businesses based on a Soweto survey. He concludes that the informal sector ‘cannot be regarded and will never be the springboard of successful and productive business development and growth’ (2013: 73), mainly because most of the owners lack ‘natural entrepreneurial acumen’ and are in survivalist mode. It should be noted that he does not distinguish subgroups within the informal sector in his analysis and thus treats the sector as amorphous/homogeneous.

When this concern over employee working conditions is summarily carried over to the informal *sector*, the answer is to shrink the number/share of informal enterprises, e.g. by the formalisation of informal enterprises (even though currently approximately 75% of informal-sector enterprises in South Africa have no employees.)

- This view may also derive from a belief that the informal sector is likely, or meant, to shrink and disappear as the economy develops and modernises (cf. Lewis 1954; Kanbur 2015: 1; 3).
- The experience in developing countries, and even developed countries, suggests that the informal sector is not going anywhere soon; it is here to stay and is going to grow.

Adopting an unemployment, or employment-creating angle when looking at the informal sector derives from a different perspective: informal sector work (be it as enterprise owner or as wage worker) is considered relative to the alternative of being unemployed. It is an *unemployed-worker* perspective – implying that a transition from unemployment to the informal sector is desirable, especially in a country with unemployment rates of 25% (narrow) and 35% (broad), and youth (aged 15-24) unemployment rates of 50% (narrow) and 63% (broad) (StatsSA 2015b: 24).

Adopting such a perspective creates new questions and new answers. In addition, it suggests adopting an enterprise-based analysis rather than one based on the household or worker characteristics/conditions.³

This paper presents the findings from the first quantitative research on the nature and dynamics of the informal sector in South Africa using national enterprise survey data. The analysis considers the employment performance, potential and constraints of enterprises in the informal sector, with a focus on firms with employees and, in particular, paid employees. We use StatsSA's neglected *Survey of Employers and Self-employed* (SESE), which surveys owners of non-VAT registered enterprises. Whereas the QLFS provides information on the informal sector from the employee side, SESE provides data on informal enterprises, their owners and their employees.

We first provide an overview of earlier research, predating SESE. Then we review some enterprise-based quantitative analyses of South Africa as well as countries in Sub-Saharan Africa, in order to situate our analysis relative to the approach and variables used in the relevant literature on informal sector employment. In section 3 we describe and analyse the characteristics of informal firms, including their age, size, location, employment and sector, and explore the characteristics of surviving informal firms and factors that impact on their business health and employment behaviour. Linkages to the LFS data also enable us to consider the personal and household characteristics of the owners of informal firms. Section 4 provides a more in depth analysis, contrasting one-person (non-employing) firms and multiperson (employing) firms in terms of their owner and firm characteristics. Section 5 reports on regression analysis to get a multivariate grasp of the relationship between enterprise employment behaviour and the characteristics of firms and firm owners. Section 6 concludes.

³ The important distinction between an unemployed-worker perspective and an employed-worker perspective on informality was greatly blurred by the introduction, by the ILO in 2003, of the broad concept of informal *employment*, which pools all forms of employment that do not involve formalised employment conditions and benefits – whether in the formal or the informal sector. While one can rightfully be concerned about possible bad employment conditions in the informal sector, one should also put oneself in the shoes of the unemployed worker and the limited options available to such a person..

1. Analysing the informal sector in South Africa: the struggle for data

The story of informal sector enterprise and employment analysis in South Africa is one of data struggles. While much qualitative and case-study work occurred, on a national basis the only available data sources were labour market data derived from household surveys.

Significant improvements in labour market data occurred since 1990. In the 1990s significant problems still were present relating to the quality and compatibility of official, private-sector and university surveys. In estimating the labour force, labour participation, employment and unemployment, the PSLSD (of UCT's SALDRU) and the October Household Survey (OHS) of StatsSA started to create data credibility. After 2000, household surveys such as StatsSA's Labour Force Survey (LFS) and QLFS as well as the National Income Dynamics Study (NIDS, also at SALDRU) have continued the trend towards better labour market data, enabling much more sophisticated analysis.

However, these were all household surveys with a focus on individuals/workers and the estimation and analysis of employment and unemployment levels/rates. No official (i.e. StatsSA) firm/enterprise surveys of the informal sector were available – nor, at the time and since, of the formal sector.⁴ Analysts had to use labour-market surveys (as described below).

Thus, for many decades the study of the informal sector in SA has been constrained by, and determined by, the limited access to appropriate data. Economists, increasingly preferring statistics-intensive econometric analysis, shied away from the topic – leaving the field to other disciplines such as geography (e.g. Rogerson), sociology, psychology, social welfare, poverty studies, development studies, etc. The era of the LFS and the QLFS changed things – but only partially.

1.1 Using labour market data and household surveys

One of the first analyses of unemployment that touched on the informal sector was done by Kingdon and Knight (2004). They were concerned, *inter alia*, with the labour market status of individuals (unemployed, informally employed, formally employed), their aim being to explain the allocation/movement of individuals between these categories – using individual, household and community characteristics in regression analysis. (Their main question was why the large numbers of people who were unemployed did not seek self-employment in the informal sector.) They used the (at the time) newly-introduced LFS.

Related quantitative work by Banerjee *et al.* (2008) analysed worker transitions into and out of the informal sector using the panel component of the LFS; Altman (2007; 2008) produced research on informal-formal sector linkages and employment scenarios that include the informal sector, while Heintz and Posel (2008) published on internal segmentation, revealing significant earnings differentials and thus segmentation *within* the informal sector. All these studies were based on the LFS.

⁴ The World Bank (2008) conducted a formal-sector enterprise survey of South Africa in 2007.

Devey, Valodia and Skinner (2006; 2008) are perhaps the most-quoted local authors on the informal sector. After the 2002 launch of the LFS – which suddenly opened the door to more systematic (though still constrained) analyses of the informal sector – they wrote a number of reports with a descriptive analysis of the new data (also using the OHS where applicable). The LFS data provided an estimate of the size of the informal sector in terms of employment – which hovered around 19-22%⁵ of total employment in 2002-2006. This appears to be a mid-range size compared to other developing countries (Essop and Yu 2008: 11; also see Kingdon and Knight 2004: 391).

The LFS data led Devey *et al.* to focus, analytically, on the characteristics of informal-sector *workers* (relative to formal-sector workers): race, gender, economic sector, occupation, income categories, education level, training, etc. – with some cross-tabulations to show possible correlations (e.g. education and occupation, education and income). However, given the constrained nature of the LFS as a household survey, this research was not, and could not be, an enterprise-focused approach.⁶

1.2 Early enterprise-based analyses

Due to the data constraints implied by household surveys, enterprise-based analyses of informal sector behaviour and employment have been few and far between – and fairly simple methodologically.

1.2.1 Barry *et al.* (2002)

Barry *et al.* (2002) may have been the first local analysts to adopt an enterprise focus. In a paper for TIPS, they try (*inter alia*) to gauge, on the basis of published information, the number of formal and informal SMMEs (the latter estimated at two-thirds of total SMMEs). They use extrapolations of OHS employment data (from StatsSA), enterprise data from industrial censuses of the Ntsika Enterprise Promotion Agency, as well as data from private sources such as the SA Global Entrepreneurship Monitor (GEM). Amongst various sources and varying estimates, StatsSA's estimate is 1.1 million informal enterprises in 2000 (2000: 13).

Barry *et al.* also consider employment in formal and informal SMMEs (combined). In an era before the LFS, significant inconsistencies amongst the various sources make their task difficult and their results inconclusive. For example, estimates of the level of employment in informal sector enterprises range from 0.9 to 2.7 million jobs, i.e. between 13.7% and 26.1% of total employment in the years concerned (2002: 25).

They also ask the important question: are (formal and informal) SMMEs employment generators? They note apparent increases in SMME employment between 1995 and 2000. Then they consider

⁵ These numbers are from Essop & Yu (2008: 11), who provide estimates for 1997-2006 from the OHS and LFS, thereby conveniently adding to, and updating, the numbers of Devey *et al.* (2008). They also use multivariate analysis to determine the role of various factors that influence whether or not a person would be involved in informal sector activities. Moreover, a multinomial logistic regression analysis is utilized to analyse whether the characteristics of informal sector workers differ from those of formal sector workers, the broad unemployed, and those that are not economically active.

⁶ It is possible to look at the characteristics of the owners/self-employed in the LFS and QLFS,

whether the observed employment growth was due to the expansion of existing SMMEs or due to new enterprise formation (i.e. births) – concluding (with some caveats) that the latter was the most likely one (2002: 27). The high birth rate of SMMEs after 1994 suggest that ‘microenterprise and very small firm formations and not the expansion of existing SMMEs accounted for the overall employment growth in the SMME sector’ (Berry *et al.* 2002:27; also quoted in Rogerson, 2004: 771).

However, they could not do an enterprise-based analysis of employment levels or changes, since the data were not at the individual enterprise-level. They could also not isolate the data on informal SMMEs as such.

1.2.2 Liedholm and McPherson

Such an enterprise-based analysis was conducted, more than a decade *earlier*, by Liedholm and McPherson (1991) from Michigan State University and the University of North Texas respectively. It was related to the GEMINI project.⁷ In 1990 they undertook a complete small-area census⁸ of small-scale enterprises in two South African townships (Mamelodi and Kwazakele), gathering information on the number of such enterprises – as well as, notably, employment numbers. In addition, the researchers gathered information on labour force composition, owners and worker characteristics, worker income, initial firm size, firm age, firm location, sector, etc., enabling rudimentary analyses of possible patterns and relationships.

Key results from relatively simple analysis include:

- More than a quarter of households were engaged in small-scale business activities;
- the townships had fewer firms (per 1 000 people) than in comparable other countries;
- the townships had fewer one-person firms (in the size distribution) than in comparable other countries;
- approximately 7 750 enterprises provided employment for 16 400 people;
- 53% of the enterprises had employees;
- the average number of persons per enterprise was 2.1;
- 38% of employees were hired (paid) and 60% were unpaid family members.

Their main focus was firm growth in terms of employment growth. Approximately 50% of firms demonstrated no employment growth in the previous twelve months. However, a similar percentage did have employment growth; the average employment growth rate for the two townships together was almost 24% per annum.⁹ This was higher than in other countries that they had surveyed similarly (see 2.2.1 below), perhaps reflecting the lifting of black business restrictions at the time.

⁷ The GEMINI Project was funded by the USAID and others. Together with Donald Mead of Michigan State, they produced a series of papers based on small-area censuses of informal enterprises in several Sub-Saharan and other countries. See Mead & Liedholm (1998) or Rogerson (2001) for an overview of the findings of the project. It is discussed further in section 2.2 of this paper.

⁸ In South Africa, Charman *et al.* (2015) have produced similar small-area census work (partly funded by the REDI project). Unfortunately they focus on spatial analysis and thus did not gather information on employment and income. The lack of random selection of areas also detracts from one’s ability to generalise their findings.

⁹ Such an analysis excludes data on firms that have closed down in the previous 12 months. Thus the data only tells the story of the surviving firms. A full story of firm births, growth and deaths will require panel data.

They conclude that small enterprises “are an important aspect of the economic life of the two South African townships... Building on this large and dynamic base of indigenous entrepreneurship should be a component of any development strategy for South Africa” (1991: v). They also suggest possible policy interventions.

Though not a national study, this was pioneering work. Strangely, the existence and usefulness of this survey design appear to have gone entirely unnoticed by South African researchers, official statisticians and policymakers (though Rogerson (2001) published an overview of the larger project, which comprised similar studies in several African countries – see Mead & Liedholm, 1998). We will return to the ‘GEMINI’ project below.

2. Towards informal enterprise analysis using national survey data

2.1 Analyses of employment in Sub-Saharan Africa using 1-2-3 and other surveys

In the design of our analysis of informal sector employment we were informed by the research design trends in earlier work in this area. We mainly considered work that focus on employment, identifying the explanatory variables and hypotheses in these studies.

2.1.1 The GEMINI project in the 1990s: Mead, Liedholm and McPherson

This project, under the leadership of Mead and Liedholm (1998; Liedholm and Mead 1999), can be considered as the forerunner of later econometric studies of the determinants of informal sector firm and employment growth, as well as newer types of surveys, all discussed in the next sub-section. They undertook national surveys of small-scale enterprises in randomly-selected locations in several Sub-Saharan and other countries in the period 1990-1995. Comprehensive surveys were done in five African countries: Botswana, Kenya, Malawi, Swaziland and Zimbabwe – as well as the Dominican Republic.

Though not an econometric study, the work involves a careful quantitative analysis of firm births, closures and expansions, and possible linkages to macroeconomic conditions and microeconomic factors such as the characteristics of informal firms and their owners.

Measuring enterprise growth in terms of employment growth, they calculate (1998: 65-8):

- annual employment growth rates for SMEs (13-16%);
- employment growth rates relative to GDP growth (at least double);
- the percentage of informal SMEs that grew their employment in the survey year (27%);
- the magnitude of employment growth in firms that grew (small).

They were also able to analyse the rate of firm births (23%; mostly one-person) and the resultant contribution to (self-)employment.

Doing basic quantitative analyses, they found (Mead and Liedholm 1998: 66-8) the characteristics of informal SMEs that are most likely to expand employment to be:

- firm age (younger better)
- initial firm size (smaller better)

- firm location (urban and non-home better)
- owner gender (male better) and
- sector (country dependent).

In a project input paper (involving Swaziland, Lesotho, Botswana, Zimbabwe and two South African townships) McPherson (1996) identifies similar variables, as well as the owner's human capital in terms of education, training and entrepreneurial experience. (McPherson also considers the owners marital status, ethnic group and household size.)

2.1.2 *The World Bank's Multi-Donor Trust Fund projects in the 2010s: Grimm, Lay, Roubaud and others*

Other relevant work is part of a comprehensive project, launched in the early 2010s and funded by the World Bank's *Multi-Donor Trust Fund* (<http://go.worldbank.org/KK5UXWE600>). It focuses on factors determining, or constraining, informal sector performance and growth in Sub-Saharan Africa, and has produced more than 20 research papers and approximately 10 research briefs. It represents a quantum leap forward in terms of the scope and sophistication of quantitative research on informal enterprises, especially in Africa. The possibility of sophisticated econometric work on the informal sector came about due to the introduction, in many Sub-Saharan countries, of so-called *1-2-3 surveys*.

The **1-2-3 surveys** were gradually developed since 1987 but came to full fruition after the turn of the century. They have dramatically changed the quality and depth of informal-sector data and analysis in developing countries (Nordman and Roubaud 2010). It amounts to a 'mixed' survey which comprises three nested surveys that ensure the full representativeness of the informal sector.

- Phase 1 is a typical labour-force survey (household survey) such as the QLFS.
- Phase 2 is an enterprise survey involving informal enterprise owners identified in the household survey. This phase covers the main characteristics of the owner, of the production unit (input use, capital stock, output, sales, value-added, profits, investment and financing) and of the employees. The owner is taken through a step-by-step recordal process to generate business accounts, thereby enabling quite accurate estimates of costs, profits, returns to capital, etc. (The SESE was devised it as a partial phase-2 survey.)
- Phase 3 is an income and expenditure survey of a subsample of household from Phase 1. It is designed to identify expenditure flows between households, the informal sector and the formal sector, thereby uncovering expenditure and supply linkages.

The data from the three phases can be linked, ensuring a rich source of information.

The Multi-Donor Trust Fund project involves papers on various aspects of the informal enterprise (see Grimm *et al.* 2011 for a summary of the project's findings). Unfortunately the work has excluded South Africa (perhaps due to the absence of a proper Phase 2 survey – see below). Much of the work comprises econometric analyses of the levels, determinants and constraints of firm performance in terms of the returns to capital – but also other aspects. Amidst the diversity there are common patterns in terms of specification and variables.

One particular paper on Madagascar (Vaillant *et al.* 2011) is of much relevance since it explicitly considers employment and employment growth (as a proxy for firm growth). One question that

they address is informal-sector employment over the business cycle, e.g. whether total informal-sector employment growth in a cyclical upswing is due to firm births (i.e. extensive) rather than due to employment expansion of existing firms, i.e. intensive. (In the case of a ‘fragile growth’ period in Madagascar they find the former.)

In trying to analyse and explain employment growth, they use the following variables:

a) Owner characteristics:

- Age and gender, marital status
- Education and experience
- Number of firms owned

b) Firm characteristics:

- ‘Pure self-employment’ = being a one-person firm or not
- Firm size (number of persons)
- Firm age
- Sector

c) Business variables:

- Number and characteristics of paid and unpaid workers
- Earnings (monthly) of workers
- Capital stock
- Expenditure on intermediate inputs
- Fees and taxes
- Sales
- Value-added
- Profits
- Investment at start-up (an entry barrier, especially for young firms).

It is noticeable that there is significant commonality between this list and the variables used by Mead, Lindholm and McPherson in their earlier studies. Location, found to be significant by Mead and his colleagues, is not used by Vaillant *et al.*; however, location (including facilities and infrastructure) does feature in other contributions in the Multi-Donor Trust Fund project (e.g. Grimm *et al.* 2012).

2.2 Data improvements in South Africa: the (unnoticed) introduction of the SESE

The introduction of the SESE, the *Survey of Employers and the Self-Employed*, by StatsSA in 2002 was not received as the data breakthrough that, one might expect, would be celebrated by those interested in employment (or even informal sector) analysis. Compared to the ubiquity of the OHS, LFS and QLFS in microeconomic analyses, the all but total absence of SESE in research is quite puzzling. (To the knowledge of the authors, it has not featured in published research on employment at all.)

Its perhaps awkward, ‘disinformative’ name¹⁰ and the general lack of interest in the informal sector amongst economists and policymakers may have played a role. Its stated objective was “to

¹⁰ In the first two SESE questionnaires (2001 and 2005), StatsSA actually uses the concept of ‘self-employment’ incorrectly, equating it with own-account worker (which is only one of several components of ‘self employment’ as defined by the ILO).

give information on the potential that the owners of non-VAT-registered small and micro-business in the country may have to create employment or income generating activities, and to contribute to the economic growth of the country” (StatsSA 2002: v). In addition, it was to be used to facilitate the estimation, for the purposes of the National Accounts, of the contribution of the non-VAT registered enterprises to GDP (currently estimated by StatsSA at about 6%). This second(ary) objective may have dominated its use for at least a decade.¹¹

Nevertheless, the SESE represents an important step forward. Compared to international benchmark surveys for the informal sector, it has some shortcomings mainly related to accurate/verifiable numbers on capital, revenue, costs, value-added and profits (see below). However, on employment data and firm and owner characteristics – prominent in all analyses of informal enterprises – it is a rich source of information.

The SESE is a national survey of the owners of enterprises that are not registered for VAT.¹² It largely captures informal enterprises.¹³ Not being registered for consumption tax (like VAT) or income tax is one of the main international criteria for the definition of an informal enterprise. An optional or supplementary one is small employment size.¹⁴

The survey has been done every four years since 2001. The SESE is designed to piggyback on the labour force survey. Owners of VAT-unregistered enterprises are identified in the household questionnaire of the LFS/QLFS. Soon after that, a follow-up survey is conducted with all the identified owners to gather enterprise information with a separate SESE questionnaire.

It is apparent that the SESE resembles a Phase 2 survey in the context of the 1-2-3 surveys. Indeed, StatsSA intended SESE to be seen as a 1-2-3 component (2002:3), even though it is not as comprehensive as a typical Phase 2 survey in key respects.¹⁵ The SESE particularly lacks detailed and consistent information on business accounts variables (capital stock, sales, profits, etc.). Nevertheless, it produces good data on employment, firm characteristics and owner characteristics; the availability of these SESE data is a major step forward. (It is to be hoped that the SESE can be upgraded, or revamped, to full Phase 2 status in the near future to enable better analyses of capital, profits and so forth.)

¹¹ At times it was also used to survey ad hoc issues, e.g. financial inclusion or transport services.

¹² VAT registration is compulsory for any firm with a 12-month turnover above R1 million. Below that threshold VAT registration is optional/voluntary – as long as 12-month turnover is above R50 000.

¹³ Statistics SA (2015: 2) reports that there are ‘a small number of businesses (9.4% in 2013) that are not registered for VAT but are registered for income tax. These belong to the formal sector.’ It is possible to remove these firms from the SESE data.

¹⁴ It should be noted that the definition of the ‘informal sector’ in the QLFS and in the SESE differ. In the SESE the data is based on enterprises not being registered for VAT irrespective of firm size (and not on being informal as such). In the QLFS the definition also requires non-registration for income tax and adds a size variable: only enterprises with fewer than five employees are categorised as informal (see Statistics SA (2015: 3) for the full definitions.) This difference and other factors make it difficult to fully reconcile the numbers of informal enterprises and informal sector workers obtained from the QLFS and SESE respectively. (See table 1 below.) The QES (Quarterly Employment Survey) defines the informal sector as enterprises that are ‘not registered in any way’, i.e. there is no size criterion as in the QLFS (QES December 2013).

¹⁵ StatsSA (2002: 3; 11) even foresaw a Phase 3 survey to be done ‘in near future’. It does not say why the SESE questionnaire was not compiled initially to include detailed questions to construct enterprise accounts, as is found in the typical Phase 2 of a 1-2-3 survey.

Apart from providing quite detailed data on many enterprise characteristics as well as employment behaviour (and other business dimensions), this methodology has the benefit that enterprise behaviour can be linked to the owner's household and personal characteristics via the LFS/QLFS data.

- If one considers the difficulties experienced by Berry *et al.* (2002) to gauge and analyse the informal sector (informal micro-enterprises), as well as the limitations of household surveys such as the LFS, QLFS and NIDS in this regard, it suggests that the SESE represents a major step forward, even if it has limitations.
- As part of the REDI3x3 project the SESE data have been 'cleaned-up' and harmonised by Andrew Kerr and made available to researchers as a consistent dataset through DataFirst, though some inter-survey comparability problems remain. (This process included some data quality checks (see Kerr 2015); also see footnote 13.)

3. The SESE results on informal enterprise employment in South Africa

In this section we describe and analyse the characteristics of informal firms, including their size, age, sector, location, employment behaviour and profitability. We explore the characteristics of growing informal firms and the constraints on employment growth. Linkages to the (Q)LFS data also enable us to consider the characteristics of enterprise owners.

3.1 Data and method

The 2013 SESE data, released only recently, in conjunction with data from the first three surveys (2001, 2005, 2009), are used to analyse the patterns and determinants of employment in informal firms.

StatsSA advises that care should be taken in comparing *absolute numbers* and trends across the four SESE surveys.¹⁶ This is due to some changes in sampling and survey methodology after 2001, a surprisingly high total number of firms identified in both the 2001a LFS survey and the first SESE survey (2001), and a still incomplete reweighting of the 2005 SESE numbers on the basis of the 2011 Census; there also appears to be under-weighting in 2009. As a result, the SESE 2001 and 2009 *totals* differ materially from (Q)LFS-derived totals.¹⁷

Our main concern is the analysis of structural patterns (shares and proportions) and structural relationships between variables – rather than trends in absolute numbers of enterprises or owners over time. Thus we largely avoid such problems and can work with the four SESE samples in analysing changes in shares and proportions over time. (Whilst we remain cautious with regard to the 2001 survey data, for example in comparing 2001 with 2013 proportions, it appears from the

¹⁶ In his SESE Quality Note, Kerr (2015) comes to the same conclusion re absolute number comparisons – in contrast to descriptive and proportional comparisons. (It is notably that he concludes, after completing several tests, that 2001 may actually provide a better indication of the total number of informal enterprises than the other three SESEs).

¹⁷ For the (Q)LFS one must distinguish between published data on informal sector employment (which uses a specific definition and has a specific coverage) and broader data on non-VAT-registered enterprises to be found in the (Q)LFS database. Here we refer to the latter data. In the case of the former data, the totals will also not match published SESE totals on non-VAT-registered enterprises since the definition and coverage differ between the QLFS and the SESE. See footnote 14 above and table 1 below.

summary tables that changes from 2005 to 2013 frequently are similar to, and similarly significant as, changes from 2001 to 2013. Thus in most cases we only discuss the latter.)

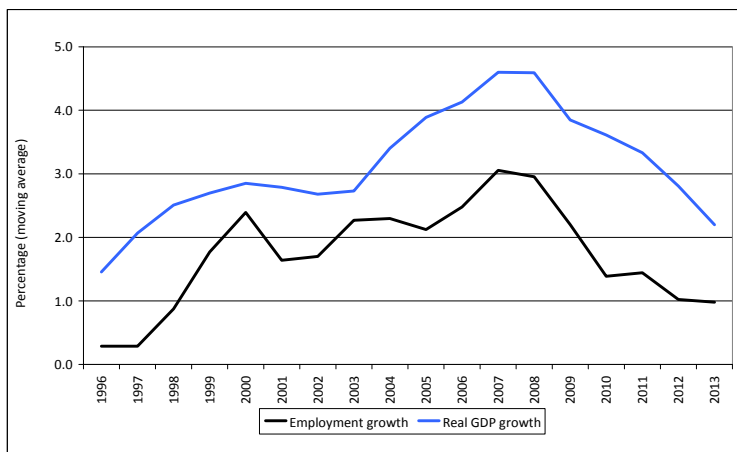
We are able to include most of the variables typically used in the literature, as discussed above, in our analysis. Unfortunately, the limitations of the SESE prevents us from including business variables to the extent done in 1-2-3 studies. Profits and sales data are present in the SESE, but their accuracy is somewhat in question, not having been generated via constructed business accounts as in the 1-2-3 methodology.

We focus on firms *with employees* in distinction from non-employed firms and distinguish between paid and unpaid employees.

3.2 The macroeconomic context of the survey years

When considering possible changes in the employment dynamics, structure and composition of the informal sector from 2001 to 2013, it should be kept in mind that this period spans a particular cyclical pattern in macroeconomic or business conditions. Figure 1 shows real GDP and aggregate employment growth rates for the period 1996 to 2013.

Figure 1: GDP and employment growth rates 1996 to 2013



Source: SA Reserve Bank (www.resbank.co.za)

The first three SESE surveys (2001, 2005, 2009) bracket a period of a strong upswing in the economy, while the 2009 and 2013 SESE's bracket a strong recession (actually, 2009 already was the first phase of this downswing, which lasted until 2013). Insufficient quarterly time-series data is available at the moment to analyse the relationship (e.g. leads or lags) between informal sector employment and the business cycle. Nevertheless, the broad up- and down cyclical pattern of the period 2001 to 2013 is a pertinent background to the microeconomic analysis of informal enterprise behaviour over time that is presented below. For example, some observed changes may be related to the business cycle, others not.

3.3 Basic characteristics of informal sector enterprises and owners

3.3.1 The size of the informal sector?

While we will avoid comparing absolute numbers across surveys, some indication of the absolute size of the South African informal sector is necessary. Table 1 provides the SESE numbers for 2013. (Corresponding QLFS numbers are provided for comparison. While the two surveys measure the informal sector from different sides – enterprises/owners and employees – the numbers are not too dissimilar.)

Table 1: Number of non-VAT registered / 'informal' enterprises and employees

(thousands)	SESE 2013	QLFS 2013
Number of owners:	1601³	1424
One-person firms	1215	1132
Multiperson firms	386	292
Number of employees	1055	936
Total working in informal sector	2656	2360

Source for QLFS: StatsSA: *National and provincial labour market: the informal sector* (2015:10).

Source for SESE: ESS database, DataFirst. (It differs a bit from the StatsSA 2015 and SESE 2013 reports)

Notes on some discrepancies:

1. SESE includes some agriculture: 11 000 owners; 24 000 employees.

2. SESE has no <5 criterion (unlike QLFS), thus it includes some small, medium and large informal firms.

3. SESE 2013 includes some 143 000 income-tax registered but not-VAT-registered firms.

Pure informal ≈ 1 374 000.

Roughly speaking, in terms of SESE2013 the informal sector in South Africa comprises 1.6 million firm operators/owner-managers (and thus the same number of enterprises), and a million employees. Thus it provides work for approximately 2.6 million people – relative to total employment of approximately 15 million in South Africa in 2013, i.e. approximately 17% of total employment. This is a smaller percentage than in 2001.¹⁸

The contribution of the non-VAT registered enterprises to GDP in 2013 is estimated by StatsSA at 5.9% (StatsSA 2014: 9).

3.3.2 Firm characteristics

Table 2 provides a summary of basic statistics of the informal enterprises and their owners for each survey year, as well as relevant p-values for statistical significance. This enables one to observe notable patterns as well as indications of changes across the four surveys (i.e. the period 2001 to 2013).

A first thing to notice is the distribution of informal firms across industries/sectors. Perhaps the strongest characteristic of the SA informal sector is that retail and wholesale trade is by far the dominant industry, with 55-70% of the number of informal enterprises in this category. [The distribution of the number of persons is not all that different, except that the share of trade is less

¹⁸ In 2001, according to the LFS 2001b, informal sector employment was about the same absolute number (2.3 million) as in 2013, but higher relative to total employment of only 11.7 million, i.e. at a 19.8% share.

dominant (47% in 2013¹⁹) and the shares of construction as well as services are relatively higher.]

However, this dominance seems to have declined across the surveys, dropping steadily from approximately 70% in 2001 to less than 55% in 2013. Except for a miniscule (and shrinking) agricultural component (subsistence agriculture is excluded), the other sectors are roughly of similar size in 2013. Manufacturing displays a declining share, while construction's share has grown robustly; services as well as transport and communication have also grown substantially. The share of the financial services component has been fluctuating, ending higher again in 2013. (The trend for shares of *persons* is similar. Trade's share of persons dropped from 64% in 2001 to 47% in 2013.)

A second pertinent characteristic is that a large majority of the firms – more than three quarters – are one-person enterprises. This matches the dominant casual impression that the informal sector is mostly made up of one-person firms ('mostly street traders'), also called own-account workers (or sometimes, imprecisely, self-employed persons²⁰). This has been the basis for a view that the informal sector is non-entrepreneurial, is mostly survivalist and has little potential for job creation (compare Ligthelm 2013).

In 2001 the percentage of one-person enterprises was 85%. However, it has declined steadily to about 75% in 2013. Therefore, the percentage of employing firms (multiperson firms) has grown from 15% in 2001 to approximately 25% in 2013; this can be interpreted as a statistically significant increase in the *propensity to employ*. (The significance of this group for informal sector employment will be discussed in section 4.) In the process the average number of persons per firm has increased from 1.3 to 1.7, i.e. a 25% increase.

The average age of firms has increased from approximately 4.2 years in 2001 to approximately 5.7 years in 2013.²¹ There was a decline in the proportion of firms less than 3 years old, and a doubling (to 20%) of the share of 'mature' firms (older than 10 years).

¹⁹ These shares of persons are quite different from the QLFS's sectoral distribution of employment in the informal sector. For example, in the QLFS2013 the share for retail and wholesale trade is approximately 32% of total informal sector employment (excluding agriculture.)

²⁰ Self-employment indeed includes own-account workers (one-person operations), but also owner-managers of unincorporated firms with employees, i.e. employers 'whose remuneration depends directly on the (expectation of) profits derived from the goods and services produced' (as well as members of producers' cooperatives and 'contributing family workers'). This is according to the definition adopted in 1993 by the 15th International Conference of Labour Statisticians (ICLS-93). <http://www.ilo.org/global/statistics-and-databases/statistics-overview-and-topics/status-in-employment/current-guidelines/lang--en/index.htm>

²¹ In the SESE the age of firms is recorded in intervals; for our analysis the age-of-firms variable was constructed by using interval midpoints, and 15 years for the 10+ interval.

Table 2. Basic owner and firm characteristics of informal/NVR firms

	2001	2005	<i>p</i>	2009	<i>p</i>	2013	<i>p</i> [09-13]	<i>p</i> [05-13]	<i>p</i> [01-13]
<u>Owner characteristics</u>									
Mean owner age	42.3	41.2	0.005	41.2	0.960	42.3	0.023	0.014	0.971
Owner age distribution: 15-35	35.8%	38.4%	0.087	34.5%	0.046	32.2%	0.231	0.001	0.022
36-64	56.7%	57.2%	0.728	62.8%	0.004	64.2%	0.481	0.000	0.000
65+	7.5%	4.4%	0.000	2.7%	0.002	3.6%	0.125	0.249	0.000
Mean owner education (years)	7.2	n.a		8.4	0.000	8.6	0.076		0.000
Distribution: No schooling	14.3%	n.a		9.5%	0.000	1.5%	0.000		0.000
grade 0-7	33.6%	n.a		25.2%	0.000	30.1%	0.008		0.032
grade 8-11	33.5%	n.a		40.8%	0.000	60.7%	0.000		0.000
grade 12	13.8%	n.a		17.5%	0.003	0.1%	0.000		0.000
> grade 12	4.8%	n.a		7.0%	0.031	7.5%	0.724		0.006
Male owner %	39.5%	45.5%	0.000	50.0%	0.023	55.1%	0.016	0.000	0.000
Married + cohabitating %	54.2%	n.a		54.5%	0.845	52.3%	0.295		0.281
Pop group: Black	89.5%	91.3%	0.111	89.7%	0.271	88.5%	0.435	0.053	0.453
Coloured	3.7%	3.3%	0.557	4.1%	0.392	3.0%	0.183	0.733	0.234
Indian	2.3%	1.1%	0.007	1.2%	0.775	2.5%	0.060	0.034	0.780
White	4.4%	4.3%	0.875	5.0%	0.478	6.0%	0.410	0.105	0.096
Owner home location: % Urban	42.2%	n.a.							
% Urban formal		n.a.		47.1%		49.2%	0.45		
% Urban informal		n.a.		10.0%		9.9%	0.98		
% Tribal areas		n.a.		41.1%		38.4%	0.31		
% Rural formal		n.a.		1.9%		2.5%	0.38		
<u>Firm characteristics</u>									
Firm age (average in years)	4.2	4.6	0.003	5.5	0.000	5.7	0.568	0.000	0.000
Firm age distribution: <1 year	24.4%	18.4%	0.000	21.1%	0.076	20.3	0.585	0.230	0.002
1 to 3 years	33.0%	34.0%	0.514	25.0%	0.000	23.8	0.490	0.000	0.000
3 to 5 years	17.9%	20.2%	0.039	16.5%	0.010	17.8	0.445	0.073	0.849
5 to 10 years	13.3%	14.9%	0.123	17.9%	0.026	18.0	0.999	0.027	0.000
>10 years	10.9%	12.4%	0.137	19.5%	0.000	20.6	0.737	0.000	0.000
1-person firms (non-employ)	85.3%	83.4%	0.105	81.4%	0.191	75.9%	0.002	0.000	0.000
multiperson firms (employ)	14.7%	16.6%	0.105	18.6%	0.191	24.18%	0.002	0.000	0.000
Firm size (mean persons)	1.3	1.3	0.531	1.5	0.044	1.7	0.047	0.000	0.000
Sector: (% of firms)									
Agriculture	1.7%	1.7%	0.980	1.0%	0.084	1.0%	0.916	0.098	0.048
Manufacturing	9.3%	12.9%	0.001	9.8%	0.017	7.4%	0.034	0.000	0.030
Construction	3.1%	5.5%	0.000	9.6%	0.000	10.3%	0.543	0.000	0.000
Trade (wholesale & retail)	69.3%	65.2%	0.008	57.1%	0.000	54.2%	0.169	0.000	0.000
Transport & communication	3.2%	4.1%	0.093	3.8%	0.722	6.5%	0.004	0.006	0.000
Financial services	7.2%	3.5%	0.000	3.1%	0.562	7.9%	0.000	0.000	0.539
Community & social services	6.0%	7.0%	0.169	10.6%	0.001	12.7%	0.155	0.000	0.000
Sector: (% of persons)									
Agriculture	3.2%	2.4%	0.329	1.0%	0.020	1.6%	0.347	0.274	0.037
Manufacturing	8.7%	12.1%	0.009	9.8%	0.303	6.6%	0.147	0.000	0.063
Construction	5.7%	8.3%	0.069	16.16%	0.003	15.0%	0.704	0.001	0.000
Trade (wholesale & retail)	64.2%	59.2%	0.028	48.1%	0.000	46.6%	0.660	0.000	0.000
Transport & communication	5.0%	4.5%	0.598	4.4%	0.879	6.4%	0.098	0.102	0.219
Financial services	6.5%	5.5%	0.543	3.1%	0.129	6.2%	0.004	0.712	0.748
Community & social services	6.4%	7.9%	0.219	13.3%	0.020	17.7%	0.252	0.004	0.001
Number of observations	5,701	3,370		1,944		2,031			

3.3.3 Owner characteristics

A number of statistically significant trends regarding owner characteristics can be observed.

- The average age of owners has remained steady at approximately 42 years, though the proportion older than 65 has more than halved – leaving the sector with a more normal working-age owner population.
- The average owner education level has increased from 7.2 years in 2001 to 8.6 years in 2013, with significant increases in the categories of grade-12 and above-grade-12 attainment. Owners with no schooling have all but disappeared by 2013. (This mirrors trends in the broader population regarding educational attainment.)
- Owner gender also shows a significant change in the period: a decline from more than 60% female to 45% female. Construction and Transport is dominated by male owners, while the traditional 2-to-1 dominance of female owners in trade has almost disappeared by 2013.
- The marital status of owners has changed somewhat, with a statistically significant decline in the percentage of owners that are married or cohabiting: from 66% in 2001 to 60% in 2013.
- The dominant population group amongst owners remains black persons (88% in 2013).

3.4 Employment-related characteristics and behaviour of informal sector enterprises

Table 3 provides a summary of employment- and business-related characteristics of the informal enterprises and their owners for each survey year. The employment behaviour of informal enterprises can now be scrutinized a bit further.

Table 3. Employment and business characteristics of informal/NVR firms

	2001	2005	<i>p</i>	2009	<i>p</i>	2013	<i>p</i> [09-13]	<i>p</i> [05-13]	<i>p</i> [01-13]
<i>Firm characteristics</i>									
1-person firms (non-employ)	85.31%	83.44%	0.105	81.41%	0.191	75.92%	0.002	0.000	0.000
Multiperson firms (employing)	14.69%	16.56%	0.105	18.59%	0.191	24.08%	0.002	0.000	0.000
Mean no of employees	0.32	0.34	0.531	0.48	0.044	0.66	0.047	0.000	0.000
Mean no of paid employees	0.21	0.27	0.056	0.39	0.039	0.52	0.125	0.001	0.000
Mean no of unpaid employees	0.11	0.07	0.001	0.08	0.698	0.14	0.163	0.033	0.401
Mean prop. paid employees	53.39%	72.66%	0.000	80.68%	0.026	76.78%	0.260	0.261	0.000
Home-related location	67.18%	59.75%	0.000	55.69%	0.039	55.36%	0.881	0.025	0.000
Commercial location	2.91%	4.38%	0.026	4.09%	0.726	4.87%	0.388	0.585	0.010
Single owner (%)	96.24%	94.52%	0.016	69.60%	0.000	88.96%	0.000	0.000	0.000
Own start-up capital	76.36%	71.84%	0.005	74.79%	0.176	76.45%	0.481	0.028	0.961
Keeping accounts	18.37%	22.96%	0.001	21.34%	0.349	24.49%	0.096	0.385	0.000
Buss. expenditure separate	13.71%	17.18%	0.003	16.89%	0.850	20.77%	0.028	0.028	0.000
Number of observations	5,701	3,370		1,944		2,031			

Recall the increase, noted above, in the percentage of employing firms (multiperson firms) from 15% in 2001 to approximately 25% in 2013. This was accompanied by a statistically significant increase in the average number of employees per firm (including the firms that have no employees) from 0.32 in 2001 to 0.66 in 2013.

A large majority of the employees in the informal sector are paid employees. The percentage of paid employees reached 77% in 2013, up from 53% in 2001. The average number of paid employees per firm (over the entire informal sector) increased from 0.21 in 2001 to 0.52 in 2013.

The other variables in table 2 are apparently important correlates of having employees. One is whether the enterprise is in a home-related location or operates at a commercial or non-residential location – where there appears to be a trend away from home-related locations and towards non-residential locations (though the former still is dominant).

A similar differentiation is visible in the extent to which firm expenses are gradually being kept more separate from household expenses, and similarly for the keeping of separate business accounts. Both of these activities have increased significantly from 2001 to 2013. About 25% of informal enterprises kept some kind of accounts of the enterprise in 2013. Analysing these variables will be more relevant when we distinguish between employing and non-employing firms in section 4.

Although the absolute size of the informal sector might have been relatively stable (at least as measured by the LFS and QLFS), there are indications of significant changes, along several dimensions, towards a higher employment-intensity and higher *employment-orientation* as suggested by increasing proportions of: multiperson/employing firms, persons per firm, employees per firm, and paid employees per firm.

4. Comparing employing and non-employing informal sector enterprises

To understand the nature and determinants of this changing dynamic, we turn to a deeper analysis of employing (multiperson) firms in contrast to non-employing (one-person) firms. Table 4 provides a comparative summary of owner characteristics as well as employment- and business-related characteristics of these two groups of informal enterprises, for each survey year.

We first consider the scope and scale of the employing (multiperson) component. Subsequently we compare that component with the one-person component to try and understand the factors associated with the observed employment behaviour in the informal sector.

Table 4. Comparing one-person (non-employing) and multiperson (employing) informal/NVR firms

	2001			2005			2009			2013		
	1-person	Multi-pers	<i>p</i>	1-person	Multi-pers	<i>p</i>	1-person	Multi-pers	<i>p</i>	1-person	Multi-pers	<i>p</i>
<i>Owner characteristics</i>												
Owner age	41.8	45.2	0.000	42.0	40.8	0.217	41.0	42.2	0.172	42.7	43.2	0.147
Owner education (years)	7.1	8.1	0.000	n.a.	n.a.		8.1	9.4	0.000	8.5	9.2	0.002
Male owner %	36.0%	59.7%	0.000	40.0%	72.7%	0.000	44.9%	72.3%	0.000	50.4%	70.9%	0.000
Married %	51.9%	67.3%	0.000	n.a.	n.a.		51.8%	66.3%	0.000	49.5%	61.2%	0.000
Pop group: Black %	91.3	78.9		92.5	85.5		91.5	81.8		90.1	83.4	
Coloured	3.2	6.7		2.9	5.3		3.9	4.7		2.6	4.3	
Indian	1.9	4.5		0.8	2.4		1.1	1.6		2.2	3.6	
White	3.4	10.0		3.7	6.8		3.4	11.9		5.2	8.7	
<i>Firm characteristics</i>												
Firm age (years)	3.9	5.4	0.000	4.4	5.6	0.000	5.4	6.2	0.051	5.4	6.5	0.002
Firm age distribution: <1 year %	25.6%	17.6%	0.000	19.4%	13.3%	0.010	22.5%	14.7%	0.006	21.3%	16.7%	0.077
1 to 3 years	34.2%	26.3%	0.000	34.9%	29.0%	0.062	25.4%	22.9%	0.433	24.6%	20.7%	0.187
3 to 5 years	17.4%	20.9%	0.040	20.5%	19.1%	0.609	15.8%	19.5%	0.169	17.7%	17.5%	0.931
5 to 10 years	12.7%	16.9%	0.007	13.5%	22.3%	0.002	17.3%	20.3%	0.298	17.6%	18.8%	0.616
>10 years	9.7%	18.0%	0.000	11.6%	16.5%	0.058	18.8%	22.6%	0.278	18.1%	26.2%	0.006
Home-related location	69.5%	53.5%	0.000	62.7%	45.1%	0.000	57.7%	46.6%	0.003	57.3%	49.3%	0.027
Commercial location	1.9%	8.7%	0.000	3.3%	10.0%	0.003	2.4%	11.5%	0.000	3.7%	8.4%	0.006
Keeping accounts	14.5%	40.7%	0.000	18.8%	43.8%	0.000	15.4%	47.4%	0.000	18.1%	44.6%	0.000
Buss expenditure separate	10.6%	31.9%	0.000	13.9%	33.6%	0.000	11.3%	41.6%	0.000	14.6%	40.1%	0.000
% of firms	85.3%	14.7%	0.000	83.4%	16.6%	0.000	81.4%	18.6%	0.000	75.9%	24.1%	0.000

	2001	2005	<i>p</i> [01-05]	2009	<i>p</i> [05-09]	2013	<i>p</i> [09-13]	<i>p</i> [05-13]	<i>p</i> [01-13]
<i>Multiperson firm characteristics</i>									
% Multiperson firms	14.7%	16.6%	0.105	18.6%	0.191	24.1%	0.002	0.000	0.000
Firm size (mean persons)	3.18	3.07	0.545	3.56	0.116	3.74	0.631	0.023	0.046
Mean number employees	2.18	2.07	0.545	2.56	0.116	2.74	0.631	0.023	0.046
Mean number of paid employees	1.40	1.64	0.193	2.11	0.097	2.16	0.886	0.061	0.005
Mean number of unpaid employees	0.78	0.44	0.000	0.45	0.935	0.58	0.485	0.282	0.132
% paid employees	53.4%	72.7%	0.000	80.7%	0.026	76.8%	0.260	0.261	0.000

4.1 Informal sector enterprises that employ: scale and scope

Table 5 provides key parameters on the size – in terms of number of enterprises, employers and employees – of the multiperson, employing component of the informal sector in 2013.

Table 5: Employing firm essentials (2013)

	Firms/owners	Employees
All firms	1,601,112	1,055,466
Total persons		2,656,578
Mean persons per firm		1.65
Employing firms	385,516	1,055,466
Mean employees		2.74
Mean persons		3.74
Paid employees		831,232
% Paid employees		78.8%
Unpaid employees		224,234
Mean paid employees		2.16
Mean unpaid employees		0.58
Share of persons		0.54
One-person firms	1,215,597	0

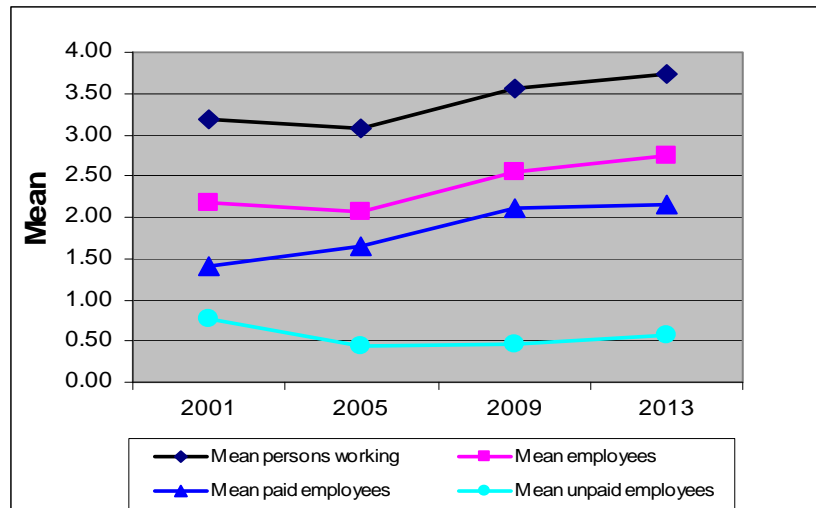
The percentage of employing firms (multiperson firms) has grown from 15% in 2001 to approximately 25% of all firms in the sector in 2013. In 2013 this comprised approximately 386 000 informal enterprises. They employed more than 1 million employees, of which more than 831 000 (or 79%) were paid employees. This means that in 2013 the 25% employing firms provided *paid* work to approximately 1.22 million people (employers plus paid employees), as well as 224 000 unpaid workers (probably paid in kind in some way). To provide some perspective on this number: total employment in the formal mining sector in 2013 was approximately 420 000 to 500 000.²² So the employment performance of this 24% of informal sector firms is quite substantial.

On average, employing firms had 2.74 employees (in addition to the employer) in 2013. As table 4 shows, this is a statistically significant increase from 2.18 in 2001 (and from 2005). For paid employees, the increase was from 1.41 in 2001 to 2.16 paid employees per multiperson firm in 2013.

As figure 2 shows, there appears to have been a definite change in the pattern of employment in these firms towards rising employment, and towards paid employment. (The mean number of unpaid workers suggests a declining trend before increasing again in the recession after 2007-8. Overall the changes in mean unpaid workers from 2001 are not statistically significant, though – it appears to be a more or less stable component relative to the sustained upward trend in the mean number of paid employees per firm.)

²² These are the values for the total number of people employed by, respectively, the QLFS September 2014 and the QES December 2013. (The QES number excludes working proprietors, sole and joint owners, *inter alia*.)

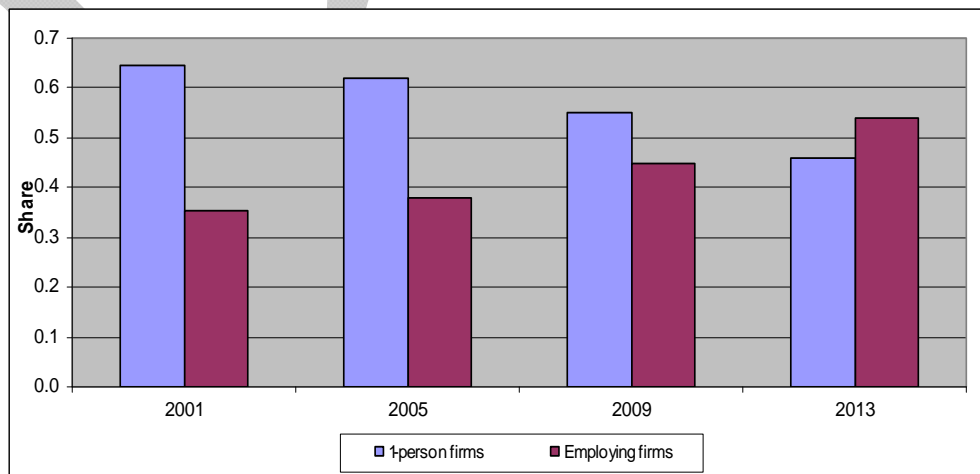
Figure 2: Mean persons per employing firm



These statistically significant changes in the data suggest evidence that there may have been a compositional, if not structural, change in the informal sector. The non-employing component appears to have shrunk, as a proportion of the total number of firms, from 85% in 2001 (83% in 2005) to 76% in 2013. The employing component appears to have grown from a 15% to a 24% share *and* has increased its average employment per firm (and paid employment in particular) significantly, while average unpaid employment declined or remained flat.

Moreover, in total these 24% employing firms provided work for approximately 54% of those working in the informal sector. In other words, more than half of those working in the informal sector, worked in the minority 24% multiperson, employing firms in 2013. Figure 3 shows how the proportion that work in multiperson firms appears to have changed quite dramatically since 2001, when it was at 35% (and 2005, when it was at 38%). In 2013 it reached 54%.²³

Figure 3: Share of persons working in one-person and multiperson firms



²³ Notably, the continued increase after 2009 occurred amidst a cyclical downturn in the economy.

4.2 Sectoral analysis

The distribution of firms across sectors for multiperson firms (Table 6, column 3) is different from the overall distribution (as well as that of one-person firms). The dominance of trade is lower, while construction has a substantially higher share (24%) of multiperson firms.

Table 6: Distribution of employing firms and persons (2013)

Sector	Share of firms across sectors (column)			Share of persons across sectors	Share of firms per sector (row)	
	All	1-person	Multi	Multi	1-person	Multi
Agriculture	0.01	0.01	0.01	0.02	0.77	0.23
Manufacturing	0.07	0.08	0.06	0.06	0.81	0.19
Construction	0.10	0.06	0.24	0.23	0.45	0.55
Trade (wholesale & retail)	0.54	0.58	0.42	0.37	0.81	0.19
Transport & communication	0.06	0.06	0.08	0.07	0.69	0.31
Financial services	0.08	0.09	0.03	0.04	0.90	0.10
Community & social services	0.13	0.12	0.16	0.23	0.70	0.30

For multiperson firms the distribution of *persons* (employers plus workers) across industries (column 4) is similar to the distribution of firms (column 3), except for community and social services, where the share of workers is significantly higher than the share of enterprises.

The last column shows that in the construction industry the majority of firms (55%) are employing firms – the only sector where that is the case in 2013 (whereas in 2001 only 46% of construction firms were employing firms; see table 4). This means that by 2013 the propensity to employ was the highest (and has been increasing) for Construction, followed by Community Services and the Transport industry.

4.3 Owner characteristics and the propensity to employ

It remains to analyse owner and enterprise characteristics that are covariates of the employment numbers noted above.

A number of statistically significant differences regarding owner characteristics can be observed.

- **Schooling:** The owners of firms with employees have roughly one year more schooling than one-person firms.
- **Gender:** A large majority (60-73%) of multiperson (i.e. employing) firms have male owners, and this majority has increased significantly from 2001 to 2013. For one-person firms, the majority of owners was female up to 2009, but it has declined, reaching 50% in 2013. Being male increases the propensity to employ significantly (see figure 5 below).
- **Marital status:** There is a significant difference between the two groups of enterprises. For example, in 2013 an average of 67% of the owners of employing firms were married or cohabiting, as against 58% for one-person firms. In other words, in all survey years a married or cohabiting owner had a significantly higher propensity to employ than a never-married, divorced/separated or widowed owner.

- Population group: Though blacks dominate both groups of firms, they dominate less in employing firms, i.e. other population groups have a stronger presence in employing firms (17%) than in one-person firms (10%).

Figure 4 illustrates the differences in owner education. The owners of multiperson firms have more years of education (amidst increasing years of education for both groups of owners). The higher the education level of the owner, the higher the propensity to employ.

Figure 4: Owner education and one-person vs. multiperson firms

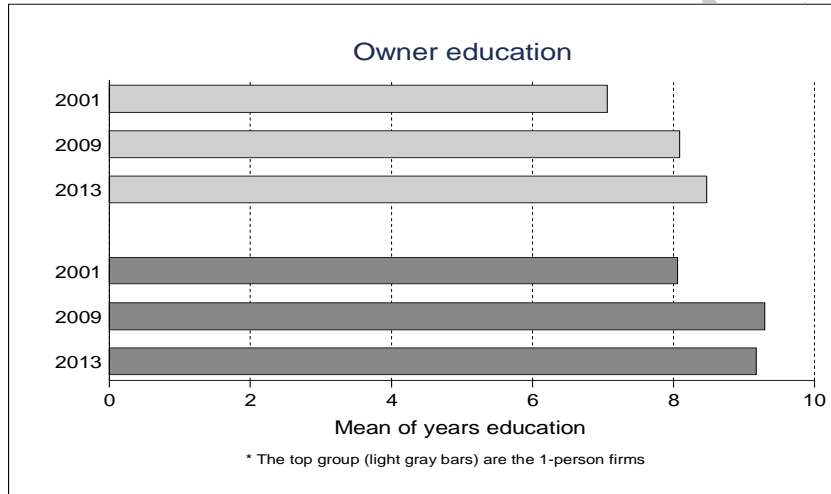
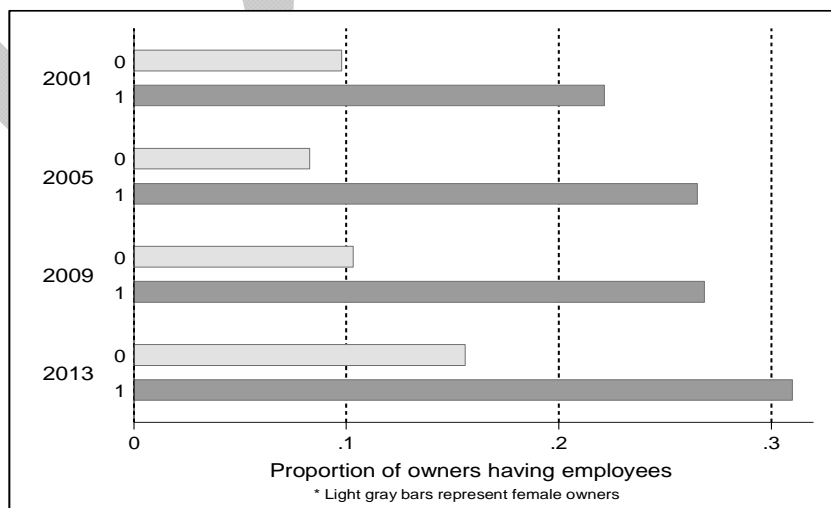


Figure 5 shows, by gender, the proportion of owners that have employees. Male owners have a significantly higher propensity to employ workers than female owners. (The propensity to employ has increased for both genders from 2001 to 2013.)

Figure 5: Propensity to employ, by gender



In summary, owners of multiperson/employing firms tend to be better schooled, male, and married or cohabiting. These owner characteristics appear to have a significant effect on the propensity to have employees.

4.4 Firm characteristics and the propensity to employ

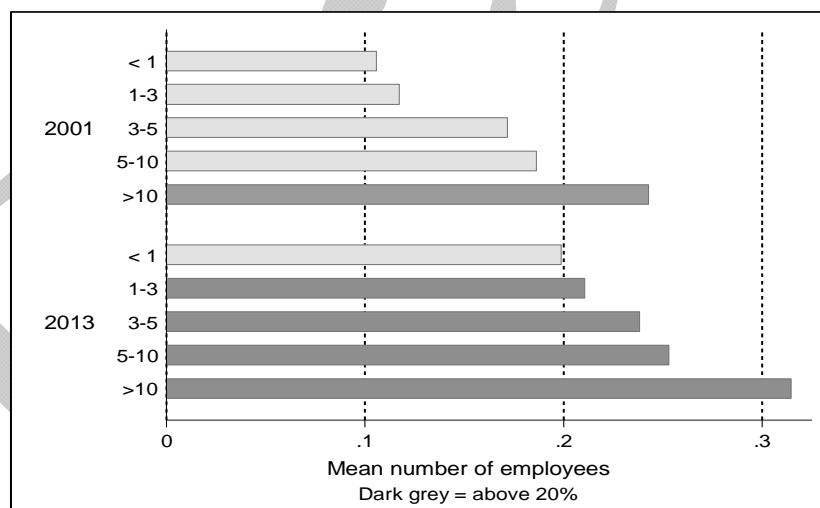
A number of firm characteristics display significant differences between one-person firms and multiperson firms.

4.4.1 Firm age

Amidst the gradual increase in the age of firms since 2001, there is a statistically significant difference between the two groups: employing firms are, on average, approximately 14 months older than non-employing firms. The age distributions also are quite different. Multiperson firms have a lower clustering of new starts (<1 years) and a significantly higher clustering of firms (>10 years old).

Further analysis suggest that, amongst multiperson firms, the propensity to employ clearly increases with firm age (noting that this propensity has increased for all ages of multiperson firms since 2001). This is shown in figure 6.

Figure 6: Propensity to employ, by firm age (in years)



4.4.2 Location and premises

Location, or the premises where the business is conducted, has potential relevance because it can signify access to business facilities and infrastructure – as well as a degree of spatial separation, but perhaps also institutional differentiation, between the household and the enterprise.

In the SESE questionnaire (question 17), ten options are specified. We have simplified these into three categories: residence-related locations (in the owner's dwelling or on the same plot),

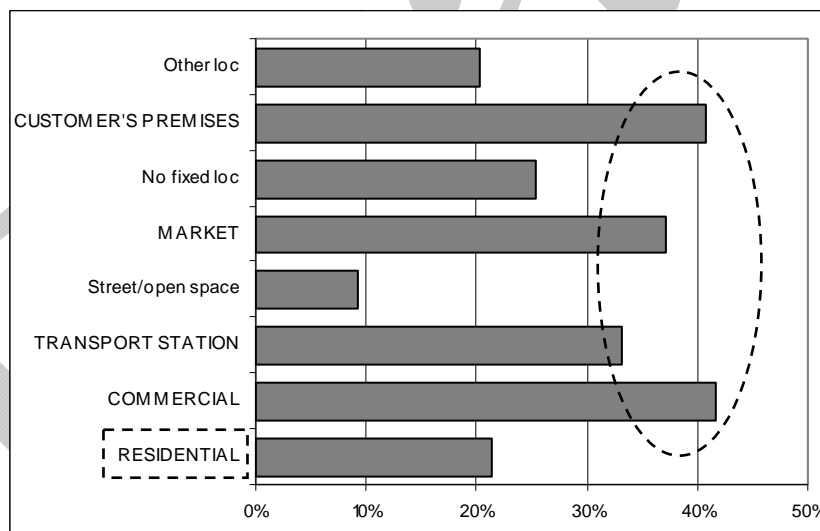
commercial locations (e.g. an office block or factory) and other locations (e.g. at a customer, market, taxi rank, street, or a mobile business). For example, table 4 shows that, for all firms together, the percentage in a home-related location has declined from 67% in 2001 to 55% in 2013 (a statistically significant change). The percentage of informal firms in a commercial location is very low, but has increased from 3% to 5% over the same period.

The results show the locational variables to be statistically significant covariates of employment behaviour. First, for all survey years there is a significant difference between the proportion of one-person and multiperson businesses that are in a home-related location. This gap varies between 8 and 18 percentage points. For example, in 2013, 57% of one-person business and 49% of multiperson businesses were operated in a home-related location.

Similar findings apply to having a commercial site or premise (even if very few firms have such a location). For one-person firms, the value hovers around a lowly 2 to 4%. For multiperson firms the range has been 8 to 12%. (This variable may display pro-cyclical behaviour: in 2009, at the end of a long upswing, the value for multiperson firms peaked at 12%, declining somewhat after that.)

Figure 7 shows the propensities to employ by location for 2013.

Figure 7: Propensity to employ, by location (2013)



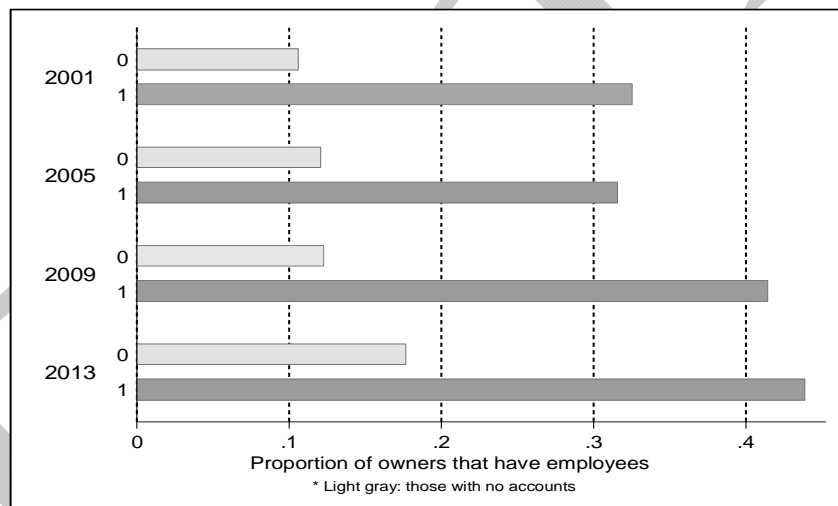
It is mostly employing firms that are located at commercial premises. Indeed, the propensity to employ consistently is higher for commercial sites than for any other location, followed by customer's location (mainly construction-related firms), market locations and (more recently) transport stations. The propensity to employ for home-related locations is amongst the lowest. Being operated in the dwelling (or not) appears to be a quite important covariate of the employment behaviour of informal firms (and perhaps other performance indicators). Of course, no simple causality can be derived in this regard.

4.4.3 Separate business accounts (and keeping business expenditure separate)

In line with our hypothesis that institutional differentiation between the household and the business enterprise may be crucial for the emergence and development of standalone and viable/sustainable businesses, we consider a dimension not used by earlier studies. This is the extent to which household and enterprise finances are kept separate. In the SESE, two questions relate to this issue. One asks directly whether expenses of the business are recorded separately from those of the household; another asks about the kind of records being kept for the business. The two questions provide similar results.

Generally speaking, for all informal firms there has been a statistically significant increase in the extent to which some type of business accounts is kept: from 18% in 2001 to 25% in 2013. When one contrasts one-person and multiperson firms, there is a significant difference. For example, in 2013 only 18% of one-person firms kept some type of business accounts – in contrast to 45% of employing (multiperson) firms. Put differently: the propensity to employ of owners who keep accounts (or business expenditures separate) is about three times as high as the propensity of those who do not.

Figure 8: Propensity to employ, by accounting status (2013)



Both of these variables indicate the degree of institutional separation, possibly a significant indicator of the emergence (or differentiation) of a more or less standalone enterprise – rather than being integrated with the household. Such ‘liberation’ may be important in the continuing development of an enterprise, also relating to access to business finance and other business services, and even formalisation in the sense of registering under the companies act.

5. Regression analysis: covariates of employment behaviour

The summary statistics and accompanying analysis in section 3 and especially section 4 have identified a number of variables that appear to be covariates of employment behaviour in the informal sector. These comprise owner characteristics and firm characteristics. In this section we use OLS regression analysis to investigate the importance of these apparent correlations in a multivariate context.

A well-known problem in the analysis of firm behaviour is that many of the relevant variables are, or may be, endogenous – or at least cannot be considered unambiguously exogenous. However, we concur with the view of Grimm *et al.* (2012: 14), that ‘the objective is not to identify causal relationships, but to identify factors that correlate with entrepreneurial success and to separate these from those that seem rather unrelated. Identifying causal relationships needs a different type of analysis’.

5.1 Regressions for employment

Table 7 shows regression results for each of the survey years for ‘having employees’ (employeesD = a dummy variables created for the purpose).²⁴

Table 7: OLS regression of dummy variable ‘employeesD’ = having employees

VARIABLES	(1)	(2)	(3)	(4)
	2001	2005	2009	2013
	employeesD	employeesD	employeesD	employeesD
Firm age 1 to 3D	-0.00139	0.0229	0.0134	0.00348
	(0.0108)	(0.0159)	(0.0228)	(0.0256)
Firm age 3 to 5D	0.0227	0.0307*	0.0658**	-0.00451
	(0.0139)	(0.0181)	(0.0274)	(0.0277)
Firm age 5 to 10D	0.0252*	0.0954***	0.0364	0.0226
	(0.0152)	(0.0197)	(0.0251)	(0.0272)
Firm age >10D	0.0650***	0.0696***	0.0508*	0.0466
	(0.0179)	(0.0203)	(0.0269)	(0.0293)
AgricultureD	0.168***	0.0633	0.0197	0.0939
	(0.0499)	(0.0438)	(0.0908)	(0.103)
ManufacturingD	-0.0599***	-0.0245	-0.0599*	-0.0448
	(0.0228)	(0.0271)	(0.0318)	(0.0421)
ConstructionD	0.252***	0.244***	0.330***	0.350***
	(0.0449)	(0.0390)	(0.0496)	(0.0502)
TradeD	0.0124	0.00312	-0.0320	-0.0665**
	(0.0203)	(0.0234)	(0.0253)	(0.0309)
Transport& CommD	0.183***	0.0610	0.0549	-0.0747
	(0.0425)	(0.0389)	(0.0525)	(0.0538)
Financial servicesD	-0.0875***	0.000624	-0.112*	-0.156***
	(0.0243)	(0.0414)	(0.0600)	(0.0418)

²⁴ Data on owner education and age is omitted in our 2005 regressions because, due to technical complexities with LFS2005, it was not possible to match SESE owners and 2005 LFS personal data.

Owner male	0.0649***	0.0998***	0.0951***	0.0847***
	(0.0104)	(0.0121)	(0.0194)	(0.0204)
WhiteD	0.102***	0.0224	0.0302	-0.0989
	(0.0377)	(0.0334)	(0.0624)	(0.0614)
IndianD	0.0462	0.127**	0.0246	0.126*
	(0.0373)	(0.0596)	(0.0920)	(0.0730)
ColouredD	0.0556*	0.0194	-0.0282	0.0864
	(0.0287)	(0.0290)	(0.0474)	(0.0548)
Commercial location	0.216***	0.201***	0.238***	0.157***
	(0.0357)	(0.0315)	(0.0585)	(0.0502)
Transport location	0.100***	0.104***	0.0474	0.0695
	(0.0345)	(0.0353)	(0.0341)	(0.0507)
Open space location	0.0165	0.00466	-0.0175	-0.0466*
	(0.0165)	(0.0196)	(0.0250)	(0.0272)
Market location	0.0117	-0.0250	0.0590	0.0686
	(0.0594)	(0.0604)	(0.0565)	(0.0800)
No fixed location	-0.00971	-0.0559***	-0.0297	-0.0476*
	(0.0133)	(0.0165)	(0.0244)	(0.0247)
Customer location	0.0896**	0.0835**	-0.0954*	-0.0450
	(0.0413)	(0.0414)	(0.0551)	(0.0506)
Other location	0.104**	0.0736*	0.166**	0.0967
	(0.0522)	(0.0378)	(0.0818)	(0.0645)
Owner years education	0.00448***		0.00533**	0.00876***
	(0.00130)		(0.00263)	(0.00294)
Owner age	0.00194		0.00512	-0.00435
	(0.00166)		(0.00371)	(0.00441)
Owner age sq	-2.73e-06		-4.70e-05	7.49e-05
	(1.75e-05)		(4.19e-05)	(4.97e-05)
Urban (owner home area)	0.00883		-0.0112	0.0109
	(0.00974)		(0.0184)	(0.0193)
Having cccountsD	0.160***	0.157***	0.228***	0.233***
	(0.0154)	(0.0145)	(0.0282)	(0.0266)
Owner marriedD	0.0425***		0.0343**	0.0525***
	(0.00975)		(0.0166)	(0.0188)
Constant	-0.0976**	0.00986	-0.140	0.0526
	(0.0436)	(0.0261)	(0.0863)	(0.0972)
Observations	5,653	3,366	1,909	1,811
R-squared	0.154	0.144	0.216	0.219

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

This is a linear probability model – the dependent variable is a 1/0 dummy variable capturing the decision to have employees or not. The right-hand side variables are self-explanatory. Omitted categories are: firm-age less than or equal to 1; the community and social services sector; black owners; firm located in the home; owner dwelling in a rural area. D indicates a dummy variable.

In terms of owner characteristics, the following variables appear to be consistently correlated with the propensity to employ: male owners have on average an employing propensity 8 percentage points higher than female owners; married owners have an employing propensity

around 5 percentage points higher than non-married owners; and each year of owner education translates into a 0.5 percentage point increase in employing propensity. There are no consistent difference between races in the propensity to employ.

The following firm characteristics appear to be statistically significant correlates:

- Industry or sector effects: Especially the construction sector dummy variable is consistently significant and relatively large positive: being in construction increases the likelihood to employ by 25-35 percentage points (compared to firms in community and social services). Financial services has become significant again in 2013, with these firms 15 percentage points more likely to employ in 2013 (than the community and social services sector). Trade also is (somewhat less) significant, but with a negative coefficient in 2013.
- Firm age: Some firm-age dummy variables were significant in the earlier surveys, but appears to have lost their significance in 2013. Firms 10 years and older are around 5 percentage points more likely to employ than firms less than a year old.
- Site of operation: This locational variable appears to be very significant and with a quite large coefficient. Firms located at premises outside the dwelling and specifically in a non-residential commercial location (such as an office block or factory) are 15-20 percentage points more likely to employ than enterprises situated in the home. Being in a transport station was significant in earlier surveys, but not in 2009 and 2013.
- Accounts: Keeping some kind of business accounts (with transactions recorded separate from those of the household) appears to be very significant and with a quite large coefficient. Informal firms who keep accounts are 15 to 25 percentage points more likely to employ than enterprises situated in the home.

As with the site of operation, having accounts indicate that the enterprise to some extent has been established as, or has developed to being, a differentiated, independent or standalone entity outside the household. Together these two 'independence' dimensions of the informal enterprise appear to explain, or be correlated with, a significant part of the decision to employ.

Despite several quite significant covariates of the decision to employ, the R^2 values of these regressions are between 0.14 and 0.22. While low, it is not too dissimilar to other studies of informal enterprises in sub-Saharan Africa with more exhaustive 1-2-3 data (e.g. Vaillant *et al.* 2011).

5.2 Regressions for profitability

Though our focus is on the employment behaviour of informal enterprises and not general business performance (also because of limitations with regard to available business variables in the SESE, for example data on capital), it is instructive to consider a regression on the log of profits, where profit is measured as the monthly nominal net profit amount. Notably, the number of employees emerges as a statistically significant variable.

Table 8 shows the regression results for the four survey years.

Table 8: OLS regression of log of net profits

	(1)	(2)	(3)	(4)
VARIABLES	2001	2005	2009	2013
	logprofit	logprofit	logprofit	logprofit
Firm age 1 to 3D	0.0683 (0.0702)	0.322*** (0.0553)	0.185** (0.0854)	0.153* (0.0919)
Firm age 3 to 5D	0.390*** (0.0847)	0.661*** (0.0627)	0.391*** (0.0949)	0.282*** (0.0991)
Firm age 5 to 10D	0.471*** (0.0962)	0.712*** (0.0689)	0.512*** (0.0902)	0.339*** (0.0955)
Firm age >10D	0.567*** (0.103)	0.738*** (0.0713)	0.538*** (0.0987)	0.390*** (0.0959)
AgricultureD	-0.00972 (0.246)	0.0777 (0.176)	0.401 (0.350)	0.0785 (0.323)
ManufacturingD	0.0345 (0.145)	-0.244** (0.0949)	0.0528 (0.115)	0.0734 (0.146)
ConstructionD	0.128 (0.218)	0.354** (0.140)	0.297* (0.152)	0.372** (0.146)
TradeD	-0.437*** (0.102)	-0.230*** (0.0811)	-0.0106 (0.0894)	-0.221** (0.110)
Transport& CommD	0.508*** (0.171)	0.651*** (0.134)	0.776*** (0.174)	0.447*** (0.169)
Financial servicesD	-0.271* (0.154)	0.00213 (0.146)	0.542*** (0.200)	-2.13e-06 (0.171)
Owner male	0.367*** (0.0558)	0.387*** (0.0423)	0.368*** (0.0625)	0.468*** (0.0717)
WhiteD	1.518*** (0.197)	1.281*** (0.127)	0.546*** (0.200)	0.528** (0.217)
IndianD	1.155*** (0.288)	0.508** (0.207)	0.261 (0.452)	0.651*** (0.222)
ColouredD	0.664*** (0.167)	0.485*** (0.105)	0.0752 (0.201)	0.139 (0.162)
Commercial location	0.532*** (0.158)	0.625*** (0.112)	0.545*** (0.152)	0.557*** (0.177)
Transport location	0.313*** (0.114)	0.306** (0.121)	0.152 (0.131)	0.437*** (0.134)
Open space location	0.0487 (0.0912)	0.0518 (0.0668)	0.101 (0.0990)	0.0242 (0.103)
Market location	0.0989 (0.242)	0.219 (0.217)	0.130 (0.182)	0.220 (0.232)
No fixed location	0.395*** (0.0827)	0.257*** (0.0574)	0.0300 (0.0945)	0.242*** (0.0900)
Customer location	0.665*** (0.255)	0.208 (0.153)	0.119 (0.147)	0.227* (0.135)
Other location	-0.0800 (0.293)	0.0672 (0.134)	0.175 (0.221)	-0.0952 (0.256)
Number of employees	0.0894*** (0.0290)	0.240*** (0.0220)	0.0841*** (0.0312)	0.0522*** (0.0173)
Owner years education	-0.00695 (0.0210)		-0.0756*** (0.0243)	0.0389 (0.0324)

Owner education sq	0.00321** (0.00160)		0.00785*** (0.00175)	0.000648 (0.00197)
Owner age	0.0498*** (0.0111)		0.0352*** (0.0132)	0.0243 (0.0149)
Owner age sq	-0.000527*** (0.000118)		-0.000423*** (0.000143)	-0.000287* (0.000166)
Urban (owner home area)	0.218*** (0.0589)		0.320*** (0.0649)	0.211*** (0.0690)
Having cccountsD	0.670*** (0.0738)	0.698*** (0.0507)	0.776*** (0.0800)	0.718*** (0.0800)
Owner marriedD	0.232*** (0.0584)		0.0850 (0.0596)	0.123* (0.0654)
Constant	4.243*** (0.267)	4.912*** (0.0905)	4.610*** (0.308)	5.037*** (0.360)
Observations	5,652	3,127	1,722	1,680
R-squared	0.180	0.343	0.309	0.301

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

In terms of overall significance, the R^2 values are quite decent and much higher than in the employment regressions. Being a semilog regression, the coefficients can be interpreted as the percentage change in net profits that is associated with the relevant variable, on average. For dummy variables $\exp^{\beta}-1$ gives the percentage increase or decrease relative to the base group.

The results show the following with regard to *owner characteristics*:

- Gender effects: Male-owned firms generate about 50% more profits than female owned firms, all else equal.
- Owner age effects: These are significant. Older owners make more profits. For example, in 2013 a 40-year old owner is predicted to make about 20% more net profits than a 20 year old owner (other things equal).
- Owner education is significant in some years (with some evidence of convexity). This corresponds with results often found in Mincerian wage/earnings regressions. Going from 11 to 12 years of education increases net profits by around 10 % – which is similar to results from Mincerian wage regressions using earnings data from the LFS.
- Race: The regressions show very large race-dummy effects. For example, in 2013 Indian and White ownership were associated with approximately 70-90% higher net profits than the omitted category (Black owners).
- Owner dwelling location: Firms whose owner lives in an urban area are about 25% more profitable.

For *firm characteristics*, the following can be noted:

- Firms with employees are more likely to be profitable – about 10% per extra employee on average.
- Firm age effects are strong and consistent – increasing firm age is associated with increased profit, 10 year old firms 80% more profitable on average than those <1 year old, holding other things constant.

- Sector/industry effects: Construction and transport are the most profitable industries, with the industry effects being relatively consistent over waves. Trade tends to have a negative coefficient (relative to the omitted sector).
- Location matters a lot – enterprises in non-residential commercial locations are associated with much higher profits (about 55%) than firms in residential locations. Also, for 2013, being located at a transport station was associated with much higher profits (and similarly for ‘no fixed location’, i.e. mobile enterprises).
- Accounts: Keeping some kind of business accounts (with transactions recorded separate from those of the household) appears to be very significant and with a quite large coefficient. Informal firms who keep accounts have around about 70% higher net profits than those who do not.

Again, the two ‘independence’ dimensions of the informal enterprise – site of operation and having accounts – appear to be important correlates of profitability.

6. Conclusion: findings from the SESE, using the SESE

Heterogeneity in the informal sector

Most earlier analyses of the informal sector in South Africa implicitly treated the informal sector as a largely homogenous, or amorphous, sector – and/or as mostly comprising street spaza shops, traders and hawkers (retail trade). Generally, the analyses did not penetrate to the texture of the informal sector in terms of the variety of firms that it comprises. Devey, Valodia and Skinner (2006; 2008) and others carefully distinguish and describe the characteristics of informal sector workers/employees in terms of age, gender, education level and so forth – typical of labour-force survey analysis – but do not inquire into possible *categories or types of informal enterprises*. Ligthelm (2013), using a self-designed survey in Soweto, compares the informal sector (unfavourably) to the formal small business sector in terms of growth and entrepreneurship potential, but does not look ‘inside’ the informal sector for components with different economic profiles and potential.

Many observers reflect a common view (or hidden assumption) that the informal sector merely, or at most, has the function of ‘passively’ absorbing those that have lost formal-sector jobs or providing a survivalist livelihood for those who fail to get such jobs. Very rarely is the informal sector analysed as a real and rightful component of the developing (!) South African economy – as a part of its employment/growth/development trajectory (and related economic policy initiatives). To the contrary, it appears that the hope is that the informal sector will disappear as a result of economic growth and development.

By focusing on employment and job creation, our analysis using the SESE addresses both these shortcomings. A first element is to recognise all informal-sector firms *as firms*, even if it only is a one-person firm – rather than the labourist concept of an ‘own-account worker’ (or even a ‘self-employed’ person). Secondly, by highlighting informal firms that have employees, it reveals that (at least) two components can be distinguished. These are the employing and the non-employing

firms (or: multiperson versus 1-person firms). [Further analysis will distinguish between employment-stagnant (non-growing) and employment-expanding (growing) informal firms.]

While the employing component comprises only 24% of the *number* of informal firms, their employment performance is substantial. There actually are more than a million employees in the informal sector, of which 850 000 are *paid* employees. This means that in 2013 the 24% of employing informal firms provided *paid* work to approximately 1.2 million people (employers plus paid employees), as well as 224 000 unpaid workers (probably paid in kind). A majority (54%) of informal sector workers actually work in multiperson firms (i.e. employing firms).

Having distinguished these two components, it leads to further insights into the characteristics of owners and firms that are correlated with firm performance/success as measured terms of employment and profitability. Factors like industry, firm age, accounting practices, nature of premises/location, owner gender and owner education become *analytically relevant* in understanding informal business behaviour, employment patterns and growth potential – rather than as mere descriptive characteristics with no economic import. It suddenly becomes analytically significant to distinguish those in trade (retail and wholesale) from those in non-trade sectors (with further subdivision into construction, manufacturing, services, etc.) – they display different behaviours in terms of employment growth and potential. From an employment perspective, those that have been ignored in the past – non-trade enterprises – may be the most important.

Revealed changes over time also gain importance. The evidence indicates that compositional (or even structural?) changes may have occurred – and these suggest that the *employment orientation* and *employment intensity* of the informal sector may have increased since 2001 or 2005. The multi-person component appears to have grown as a percentage of total informal firms, the average size of firms has increased, the average number of employees has increased, the average number of paid employees has increased. Sectoral changes – with trade becoming less dominant and construction and other sectors growing as a proportion of numbers of enterprises (and employees) – suggest a move away from trade, a less-likely-to-employ sector. Business data relating to location/premises as well as accounting practices suggest an increase in the standalone character of many informal enterprises, especially the multiperson enterprises – perhaps constituting a growing group of ‘emerging’ standalone, likely-to-employ firms.

The careful analysis of the heterogeneous texture of the informal sector and employing firms in particular, as well as the covariates of employment and profit performance (as in the regression analysis presented above), also reveal new dimensions, opportunities and imperatives for employment-oriented policy analysis and design. Further analysis into internal and external constraints faced by informal businesses will be relevant, including the impact of macroeconomic cycles on firm behaviour, performance and survival in the informal sector.

Finally: the patterns and firm behaviour with regard to employment, revealed by our analysis of the SESE, make a compelling case that South African economic policies should approach the informal sector as an integral part of the economy, as a heterogeneous sector with significant employment levels and real employment-generating potential, requiring enabling policies – and not as a problem sector of hawkers and street traders mostly requiring regulation, compliance and policing.

Reflections on data challenges

As in the formal economy, employment behaviour can be analysed from two sides (or sources of information): the enterprise or the employees. The latter is provided by national labour force surveys (like the LFS and QLFS), the former by national firm surveys (which currently is not done for the formal sector by StatsSA). The SESE is such a firm survey for the informal sector. It differs from the typical national formal-sector firm survey in that it does not have (and cannot have due to non-registration) a sampling frame of registered enterprises. As in the 1-2-3 type surveys, it is linked to the LFS/QLFS (which constitutes phase 1) in that the owners of informal enterprises are identified in the LFS/QLFS. A follow-up interview with all these owners constitutes the SESE survey (i.e. a phase 2 survey). It provides information on the enterprise as such. (Information on owner characteristics largely is sourced from the QLFS phase.)

The SESE thus provides valuable data on variables that characterise the informal enterprise. Pertinent amongst these is the information on firm size as measured by employment, employment growth, paid and unpaid employment, and so forth. The source of this information on enterprise employment is the owner of a specific enterprise, not – as in the QLFS – employees whose information is not linked to a specific enterprise. Thus it is a much more direct source of survey information on employment in informal sector enterprises. Unfortunately, at the moment the SESE is not as comprehensive as other phase-2 surveys in terms of accounts-based business and financial variables.

Having two surveys on employment-related data – one firm-based and another employee-based – unfortunately also leads to two sets of results and numbers that do not always match or cannot be easily reconciled. That is an unavoidable part of the territory of employment analysis.

With QLFS-SESE the situation is complicated a bit by the apparently very high total numbers of enterprises in both the 2001 QLFS and SESE surveys. Some of it can be explained by differences in the composition of the included firms (e.g. ‘running an enterprise as a second job’) compared to later surveys. But composition does not appear to explain everything. Nevertheless, a quality check of the 2001 SESE data does not reveal any obvious quality problems (Kerr 2015); according to Kerr, the 2001 SESE may be closer to the truth in terms of the total number of informal enterprises than the other SESE and QLFS surveys.

Thus – and also in the interest of ‘full disclosure’ and assessing all the available SESEs – we have included the sample from 2001 survey in our analysis – which in any case deals with proportions and possible changes in proportions (i.e. not totals) between 2001 and 2013. Our confidence is boosted by the fact that comparisons between 2005 and 2013 largely confirm possible compositional and other changes between 2001 and 2013. Still, a healthy sense of watchfulness should remain when using the data reported in the 2001 SESE and QLFS surveys.²⁵

* * *

²⁵ One such factor is the inclusion, in the SESE, of NVR firms that do pay income tax – and thus who technically are in the formal sector. Ideally they need to be removed from the SESE data for proper informal sector analysis.

References

- Altman M. 2007. *Employment scenarios to 2024*. Pretoria: HSRC.
- Altman M. 2008. *Formal-informal economy linkages*. Pretoria: HSRC.
- Banerjee A., Galiani S., Levinsohn J., McClaren Z. and Woolard I. 2008. Why has unemployment risen in the new South Africa? *Economics of Transition*, 16(4): 715-40.
- Devey, Skinner and Valodia (2006) The state of the informal economy. In: *The State of the Nation 2005-2006*. HSRC Press.
- Devey R., Lebani L., Skinner C. and Valodia I. 2008. The informal economy. In: *Human Resources Development Review*. HSRC.
- Fourie F.C.v.N. 2011. *The South African unemployment debate: three worlds, three discourses?* Working paper 63, SALDRU, University of Cape Town. Also published as Working Paper 1 (2012), REDI3x3, available at: www.redi3x3.org/papers
- . 2013. *The NDP on unemployment: On consistency, coherence and comprehensiveness*. Paper presented at the ESSA Conference, Bloemfontein, September.
- Grimm, M., Knorranga P. and Lay J. 2012. Constrained Gazelles: High Potentials in West Africa's Informal Economy. *World Development* 40 (7): 1352-68.
- Grimm M., Van der Hoeven R and Lay J. 2011. *Unlocking potential: Tackling economic, institutional and social constraints of informal entrepreneurship in Sub-Saharan Africa: Main findings and policy conclusions*. Multi-Donor Trust Fund paper.
- Heintz J. and Posel D. 2008. Revisiting informal unemployment and segmentation in the South African labour market, *South African Journal of Economics* 76(1): 26-44.
- ILO. 2003 *Scope of the Employment Relationship: Report IV*, International Labour Conference, 91st Session, International Labour Office, Geneva.
- Kanbur R. 2015. *Informality: causes, consequences and policy responses*. Discussion paper 10509. Centre for Economic Policy Research. London.
- Kerr A. 2015. *SESE Data quality note*. DataFirst., University of Cape Town.
- Kingdon G.G. and Knight J. (2004). Unemployment in South Africa: the nature of the beast. *World Development*, 32(3): 391-408.
- Kuznets S. 1955. Economic growth and income inequality, *American Economic Review* 45: 1-28.
- Liedholm C. and McPherson M.A. 1991: *Small-scale enterprises in Mamelodi and Kwazakele townships South Africa: survey findings*. Working paper, Michigan State University.
- Liedholm C. and Mead D.C. 1999. *Small Enterprises and Economic Development*. Studies in Development Economics. New York: Routledge.
- Ligthelm, A. 2013. Confusion about entrepreneurship? Formal versus informal small businesses. *Southern African Business Review* 17(3): 57-57.
- Lewis, W.A. 1954. Economic development with unlimited supplies of labour, *Manchester School* 22: 139-191.
- McPherson M.A. 1995. The hazards of small firms in southern Africa. *Journal of Development Studies* 32(1): 31-54.
- . 1996. Growth of micro and small enterprises in southern Africa. *Journal of Development Economics* 48: 253-77.
- Mead D.C. and Liedholm C. 1998. The dynamics of micro and small enterprises in developing countries. *World Development* 26(1): 61-74.
- NPC (National Planning Commission). 2012. *National Development Plan*. The Presidency. Pretoria.

- Nordman C.J. and Roubaud F. 2010. An original approach in development economics: 20 years of work on measuring and analysing the informal economy in the developing countries. DIAL Dialogue, October. <http://en.dial.ird.fr/content/view/full/52713> and <http://en.dial.ird.fr/content/view/full/47813>
- Rogerson C.M. 2001. In search of the African miracle: successful small enterprise development in Africa. *Habitat International* 25: 115–42. [An overview of the GEMINI project.]
- , 2004. The impact of the South African government's SMME programmes: a ten-year review (1994-2003), *Development Southern Africa* 21:5, 765-84.
- Statistics SA. 2002. *The contribution of small and micro enterprises to the economy of the country: A survey of non-VAT-registered businesses in South Africa. Part 2: Narrative report*. Pretoria.
- , 2014. *Gross domestic product*. Statistical release P0441. Pretoria.
- , 2015a. *National and provincial labour market: The informal sector*. Statistical release P0211.4.3. Pretoria.
- , 2015b. *Quarterly labour force survey*. Statistical release P0211. Pretoria.
- Vaillant J., Grimm M., Lay J. and Roubaud F. 2014. Informal sector dynamics in times of fragile growth: the case of Madagascar. *European Journal of Development Research* 26: 437–455.
- World Bank. (2008). South Africa Country Profile 2007. Enterprise Surveys series. <http://www.enterprisesurveys.org/data/exploreconomies/2007/south-africa>