

A Statistical Review













1. Introduction

This chapter presents the findings of a statistical investigation that was undertaken as part of the Department of Trade and Industry's (**the dti**'s) Annual Small Business Review. The Review, which in the past was carried out by Ntsika Enterprise Promotion Agency, has been commissioned to Trade and Industrial Policy Strategies (TIPS) for the first time in 2004 for the year 2003.

This year's Review is the second consecutive investigation undertaken by TIPS, and to some extent can be regarded as an update of the 2003 Review. In addition to updating the 2003 statistics, this chapter has strived to add new analyses or modify previous methods where this was required to increase the relevance and understandability of the results. However, every effort has been made to allow this report to stand on its own, independently of the work done in 2004.

Compared to the *Annual Review of Small Business in South Africa* – 2003, the following changes should be mentioned:

- Most figures on non-VAT¹-registered businesses could not be updated, as Stats SA did not repeat the Survey of Employers and Self-Employed (SESE). For other analyses, an effort has been made to increase the consistency by focusing on the calendar year 2004.
- On the other hand, the analyses on the entrepreneurs' profile are more extensive.
- Also, the analyses of the business dynamics are deeper, especially with a comprehensive review of turnover growth by sector.
- Lastly, we provide a new section on medium-term trends with an analysis of evolutions between 2001 and 2005, which should be more reliable than the yearto-year comparison provided in the previous report.

2. Definitions, data and methodology

2.1 Concepts of entrepreneurial business, self-employed, micro enterprise and small business

In literature or current economic life, the concept of 'small businesses' often covers different implicit areas of focus. The lack of clarity about what is understood as a small business can affect the reliability of research findings.

In some cases, the relevant feature is the *entrepreneurial dimension*: there is a natural concern for the economy's capacity to generate new activities, or to create new entities



¹ Value-added Tax

in response to new needs. However, many entrepreneurial ventures do not reach the stage of small businesses, as they never start operations. On the other hand, many small businesses are age-old entities, such as family businesses which have been passed from generation to generation.

Another interesting characteristic often associated with small businesses is *ownership* and management. The issues here are both concentration versus competition, and the broad economic participation of the population, not only as (co-)owners of productive entities, but as agents who are able to exercise a power in the management of these entities (unlike in an economic model of participation of individuals through small shareholdings in large firms). However, some small businesses are not owner-managed (for example, if the owner employs a manager to run it), while some owner-managed entities are actually large.

Other studies are concerned with the *labour status* of the economic agents, who can be employees, employers or self-employed. The latter ones, even if they are not providing permanent jobs to the community, can be regarded as small business entities of their own.

A further area of focus is on the *informal or semi-formal economy*. This sector occupies a major part of the population, especially in rural or peri-urban areas, and especially among the black African population group. A majority of informal businesses can be categorised as micro enterprises, but other entities may be larger. Many informal activities are also intermittent, in the sense that they may be started, discontinued and reactivated several times during a year, depending on the needs and availability of their owners.

Lastly, there is a concern around the *size of entities*. This is the criterion most frequently adopted internationally for small business studies. However, the limits of what constitutes a 'small' business vary from one economy to the next. In developed countries, entities with fewer than 500 employees are usually considered as small and medium enterprises² (SMEs), while in developing countries the thresholds are generally lower. In SA, micro enterprises are occasionally described as businesses whose turnover is below the compulsory VAT registration limit (R300,000). A further distinction is the 'survivalist' business, which is generally defined as providing income only below the poverty line.

However, all these criteria do not fit exactly with the official definition.

² Both the European statistical institute Eurostat and the Canadian Industry Canada use 499 employees as a threshold, while the European Commission refers to a maximum turnover of €20-million or maximum assets of €10m.

2.2 The official definition of 'small business'

The National Small Business Act of 1996, defines a 'small business' as follows:

a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy mentioned in column I of the Schedule.

Small businesses can be classified as micro, very small, small or medium enterprises, following a complex set of thresholds. The National Small Business Act, as revised by the National Small Business Amendment Bill of 2003, defined the thresholds per industry as in Table 4.

Compared to developed-country standards, SA thresholds are low. Many businesses which Americans or Europeans regard as SMEs would in SA be regarded as large enterprises.



The purpose of this Review is to provide information for a wide range of users with different interests, so the present report will embrace as comprehensive a definition of small businesses as possible, providing that the economic activity remains below the thresholds for a large enterprise. This means that it can include manufacturing enterprises employing 150 to 199 full-time employees, as well as survivalist hawking enterprises, or occasional home-based evening jobs. Since agriculture is one of the sectors considered relevant in the official small business definition, it seems correct also to include subsistence farming in a review of small businesses.

The terms 'small business' and 'SMME' are used as synonyms, whereas the term 'corporation' refers specifically to entities (especially CCs and companies) registered with the CIPRO.

The owners of these SMMEs are hence referred to as business owners or 'employers and self-employed', while we have tried to keep the term 'entrepreneur' for those involved in a start-up or a new business activity³.

Figure 11 illustrates the variety of situations covered by this Review. It shows a continuum of situations, from the most informal to the most formal type of enterprise, but the reality is far from being so simple. The formality criteria are intertwined and not necessarily correlated – for example, corporations registered with the CIPRO may well be trading only occasionally or even not at all, while non-VAT-registered trades may provide many jobs, at least on a casual basis.



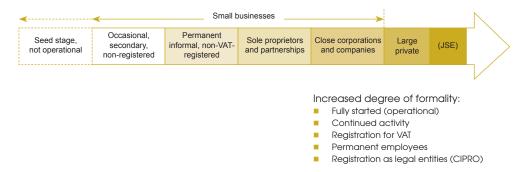
To avoid confusion, persons working without pay in a family business – although they are sometimes referred to as self-employed for example, Statistics Canada) – were ignored in this Review.

Table 4 – Thresholds for the classification as micro, very small, small or medium enterprise

Sector or sub-sectors in accordance with the Standard Industrial Classification (SIC)	Size or class	Total full-time equivalent of paid employees	Total annual turnover (Rm)	Total gross asset value (fixed property excluded) (Rm)
		Less than:	Less than:	Less than:
Agriculture	Medium Small Very small Micro	100 50 10 5	5.00 3.00 0.50 0.20	5.00 3.00 0.50 0.10
Mining and Quarrying	Medium Small Very small Micro	200 50 20 5	39.00 10.00 4.00 0.20	23.00 6.00 2.00 0.10
Manufacturing	Medium Small Very small Micro	200 50 20 5	51.00 13.00 5.00 0.20	19.00 5.00 2.00 0.10
Electricity, Gas and Water	Medium Small Very small Micro	200 50 20 5	51.00 13.00 5.10 0.20	19.00 5.00 1.90 0.10
Construction	Medium Small Very small Micro	200 50 20 5	26.00 6.00 3.00 0.20	5.00 1.00 0.50 0.10
Retail and Motor Trade and Repair Services	Medium Small Very small Micro	200 50 20 5	39.00 19.00 4.00 0.20	6.00 3.00 0.60 0.10
Wholesale Trade, Commercial Agents and Allied Services	Medium Small Very small Micro	200 50 20 5	64.00 32.00 6.00 0.20	10.00 5.00 0.60 0.10
Catering, Accommodation and other Trade	Medium Small Very small Micro	200 50 20 5	13.00 6.00 5.10 0.20	3.00 1.00 1.90 0.10
Transport, Storage and Communications	Medium Small Very small Micro	200 50 20 5	26.00 13.00 3.00 0.20	6.00 3.00 0.60 0.10
Finance and Business Services	Medium Small Very small Micro	200 50 20 5	26.00 13.00 3.00 0.20	5.00 3.00 0.50 0.10
Community, Social and Personal Services	Medium Small Very small Micro	200 50 20 5	13.00 6.00 1.00 0.20	6.00 3.00 0.60 0.10

Source: Schedule 1 to the National Small Business Act of 1996, as revised by the National Small Business Amendment Bill of March 2003

Figure 11 - From informal to formal businesses



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2.4 The lack of comprehensive data on small businesses

Not surprisingly, since there are different concepts of businesses, there are also different qualities of data. However, in the last few years, data collection exercises have shed some light on several sectors of less formal enterprises.

- The businesses that are formally registered have a continuous trade, and permanent employees are captured by several business registers and therefore reasonably well known.
- Informal enterprises, on the other hand, have been described best by an extensive survey of non-VAT-registered businesses, carried out by Stats SA in 2001 (SESE, published in 2002). Unfortunately, this survey has not been updated since then, so that it is almost impossible to ascertain with sufficient reliability the trends of that sector in the last few years. It would be extremely useful if Stats SA could repeat the SESE at least every two years.
- Entrepreneurial businesses in their infant stages are better known since 2001, when a team at the University of Cape Town's Graduate School of Business joined the global GEM team in running annual surveys of entrepreneurship.
- In fact, at present the 'informational opacity' seems to be highest among a segment of small business that is potentially very significant sole proprietors and partnerships which usually have a permanent and substantial formal activity but are not registered with the CIPRO.
- Lack of data is particularly acute among unregistered businesses that employ only casual staff or none, are only a minor side occupation of their owner, or operate on an 'on-and-off' basis. While in developed countries these cases can be considered as marginal, in SA many of these informal and micro enterprises are key to the livelihoods of millions of people.

Figure 12 illustrates how different data sources cover different types of small businesses.

Small businesses Permanent informal, non-VAT-Occasional, Seed stage, Sole proprietors Close corporations Large (JSE) secondary, non-registered not operational and partnerships and companies registered SESE 2001-02 CIPRO / Stats SA Cape Town RSC Levy database Labour Force Surveys

Figure 12 - Data available for each type of small business

Entrepreneurial businesses, as described in the GEMs, tend to overlap significantly with other categories.

GEM

To obtain the maximum information, this Review has attempted to combine different sources of data, all of which describe a specific segment of the SMME economy, and have particular drawbacks. Table 5 presents an overview of these data sources, including their weaknesses and strengths.

Table 5 - Data used and drawbacks

Data source	Public?	Sector of focus	Reference period	Data type	Advantages	Drawbacks
Stats SA Business Register	No	CIPRO- registered corporations	2004 & 2005	Business register	Systematic, detailed information	Does not cover entities such as sole proprietors
CIPRO 'Registration statistics'	Yes	CIPRO- registered corporations	Annual	Business register	Systematic	No indication if entities are economically active
Stats SA Labour Force Survey (LFS)	Yes	Main activity of individuals	Bi-annual	Household survey	Wide coverage	Little detail on businesses themselves
GEM	Yes	Start-ups and new firms	Annual	Household survey	Detailed profile of entrepreneurs	No information on businesses themselves; samples rela- tively small so year-to-year comparisons not really pos- sible
Stats SA SESE	Yes	Non-VAT- registered businesses	2001	Household survey	Systematic, detailed information	Not updated since 2001
City of Cape Town Regional Services Council (RSC) Levy database	No	Entities employing at least 1 person / has income of at least R10,000, in greater Cape Town	Annual 2000-2004	Business register	Systematic information, wide-ranging	Possible bias (under- reporting); quality problems; covers only specific urban area; difficult to single out non-business entities
CIPRO Registrations by sector	No	CIPRO- registered corporations	2004 & until 5 Oct. 2005	Business register	Systematic and classified by industry	No indication if entities are economically active
Stats SA Statistics on liquidations and insolvencies	Yes	CIPRO- registered corporations	Monthly, until Aug. 2005	Statistics	Systematic and classified by industry	Covers only small portion of business deaths
Stats SA GDP	Yes	All (business and non- business)	Quarterly	Accounting	Systematic / official	Difficult to single out non-business entities



2.5 Methodology

Generally speaking, the methodology for this Review was defined according to three principles:

- Multiple data source approach: Because of data weakness, this statistical review attempts to compare, recoup and triangulate as many sources of data as possible on any question to try to explain the differences between these sources, rather than work on a single source.
- Minimise the effect of short-term fluctuations: When figures in a particular data source were found to fluctuate strongly from one year to the next, usually owing to small sample sizes, the effect of these fluctuations was corrected by building averages across several years. This especially occurred for GEM data and LFS data related to elderly persons.
- Minimise extrapolations: To reduce the arbitrary component in the figures presented, as well as the risk of modelling mistakes, the Review tries to use each data source for what it is meant, rather than building it into an extrapolating model. This means that the output (statistical tables and charts) may not respond exactly to the frequently asked questions, but some verbal clues are given to help the reader to bridge the gap.
- There are three exceptions to the last principle, of which only one is major:
 - Extrapolation was used to estimate the total number of small businesses, as this is a question which cannot find an answer in any single data source.
 - A simple model, presented here, was built to estimate the lifespan of firms in Cape Town.
 - A more comprehensive econometric model was built to estimate SMMEs' contribution to GDP. This model is based on numerous assumptions, and as such its validity can be questioned.

Below we describe in detail the techniques used for the analysis of the most problematic data sources.

2.5.1 Estimation of the number of small business owners, in total and by category, from the LFSs

Stats SA's LFSs provide two measurements with regard to businesses:

- Business owners
 - First, in table 2.1, they estimate the number of individuals of working age who "run or do any kind of business, big or small, for himself/herself". This is also the definition used for persons aged 65 and over (table 7.1 and 7.2).
 - In addition, in table 3.11, they measure the number of people "working on [their] own or with a partner, in any type of business (including commercial farms)".
 - It is not entirely clear what the difference between these two definitions is, but since table 3.11. provides a distinction between the formal and informal

sector, it was preferred. However, the other definition is also used to enable the inclusion of people aged 65 and over.

There are also two definitions of subsistence farming:

- Subsistence farming
 - In tables 2.1, 7.1 and 7.2, the definition includes people that "do any work in his/her own or the family's plot, farm, food garden, cattle post or kraal, or help in growing farm produce or in looking after animals for the household".
 - Meanwhile, in table 3.11, the focus is on people "working on his/her own small farm/plot or collecting natural products from the forest or sea".
 - Again, the definition from table 3.11. was preferred when a distinction between formal and informal was required, while the former definition was used to enable the inclusion of people aged 65 and over.
- Other marginal activities, such as construction of own home, were statistically not very significant and therefore not considered, except in the estimation of the total number of businesses.

The numbers were used as they appear in the tables, or, in the case of elderly people, average values were built across the years available.

2.5.2 Contribution to employment, from the LFSs

The calculation of the contribution of each business size class (micro, very small, small and larger) to total employment was derived from a table indicating the number of regular workers per business and per sector, as follows:

- The number of regular workers per business and per sector was taken from table 3.14 in LFS September 2004, and entities were transferred to size categories (micro, very small, small and medium & large) according to the thresholds proposed by the National Small Business Act (the specific thresholds of agriculture was taken into account).
- Non-business sectors, such as private households with employed persons and exterritorial organisations and foreign governments, were ignored. A problem was encountered in the sector labelled Community, Social and Personal Services (CSP), which included business as well as non-business, for example, government departments, schools, hospitals, etc. For that sector, the portion linked to business was estimated as follows:
 - It was assumed that 100% of employment in micro entities, 75% of employment in very small entities, 6.6% of employment in small entities and 2% of employment in medium & large entities come from private businesses.
 - This set of assumptions meant that the private CSP business sector was strongly concentrated on micro and very small businesses, while government



entities and other non-business entities were more likely small, medium or large.

- Overall, it meant that 38% of employment in the CSP sector was assumed to come from private business entities, while 62% was assumed to come from state or other non-business entities.
- The assumptions are relatively arbitrary and may cause modelling errors for that particular sector.
- The share of 'micro', 'very small' and 'small' businesses and the share of 'medium & large' and 'unspecified' to total employment were then calculated sector by sector and overall.

2.5.3 Contribution to GDP

The contribution of small businesses to GDP was even more difficult to ascertain.

Up to 2001, this figure has been estimated on the basis of sectoral censuses, with the disadvantage that the smaller and more informal producers, which were not well represented in the older censuses, were underestimated. Therefore industrial censuses have been discontinued.

In light of the dearth of data, this study has adopted an approach developed in the past by Abedian (2001) in a *Report to the Policy Board for Financial Services and Regulation*. The principle of this approach is to divide the GDP into two components – the total compensation of employees and the gross operating surplus – which are allocated separately to the size classes of businesses, in each sector.

More specifically, the steps for the calculation were as follows:

- GDP statistics for the four quarters of the year 2004 were added, industry by industry, to obtain the total Gross Value Added (GVA) per sector for the calendar year.
- Again, a problem came from the treatment of non-business entities, even more so since Stats SA's presentation of their share has changed since 2004. In the 2005 releases (relative to the 2004 GDP), a distinction was made between 'General government services' and 'Personal services' as producers. Meanwhile, in 2004, three categories were presented 'Community, social and personal services', 'General government services' and 'Other producers'. This means that in the 2005 releases, 'Other producers' (such as private households) were amalgamated into the 'Personal services' category.
- In each sector, the total compensation of employees was allocated to firm categories according to their contribution to total employment, as derived from the calculation presented in section 2.5.2 above (that is, based on LFS data). This may pose problems, as it implicitly rests on the assumption that the average remuneration per employee is the same across all size categories. However, it is

more likely that on average, the remuneration of small business employees is more modest than in large enterprises.

- Specifically for the CSP sector, for practical reasons, the 'Personal services' category
 from the GDP Release was assumed to correspond to the 'Private Business CSP
 Sector' as calculated from the LFS data.
- This first step resulted in a table showing, in each of the 10 SIC codes, the assumed total compensation of employees for each size category.
- The gross operating surplus was allocated according to assumptions on the level of profitability of each type of business. For this second step, two sets of weights were assumed, leading to two sets of estimations.
 - For GVA 1, gross operating surplus was allocated using the following weights: survivalist 0,0; micro 0,05; very small 0,05; small 0,20; medium 0,20 and large 0,50.
 - For GVA 2, the weights were: survivalist 0,0; micro 0,0; very small 0,05; small 0,15; medium 0,20 and large 0,60.
- Based on these weights, the gross operating surplus for each sector was multiplied by the relevant weights, generating an assumed gross operating surplus by sector and by size category.
- Finally, for each sector and size category, the assumed compensation of employees was added to the assumed gross operating surplus to generate the assumed GVA.
- In each sector, the assumed GVA of each category was compared to the GVA of the sector to determine the contribution of micro, very small, small, and medium & large businesses to the sector's GVA. Similarly, the total across sectors resulted in the contribution of SMMEs to GDP.

2.5.4 Estimated number of sole proprietors and partnerships, based on Cape Town database

In the absence of data on the total number of formal, non-incorporated businesses in SA, the Cape Town levy database was used to provide a basis for the estimation. The principle was to calculate a ratio of the number of sole proprietors and partnerships to the number of CCs and companies in Cape Town, and to apply this ratio to the number of CCs and companies in SA, which is well documented.

The payers of Cape Town's RSC Levy are classified according to their type of business, which normally enables one easily to recognise sole proprietors (business type 1) and partnerships (business type 2). However, CCs and companies are only coded together with other registered entities such as trusts or clubs (business type 4), which may include non-business entities. To concentrate on business entities and obtain a good estimate of the number of CCs and companies, the accounts coded with business type 4 were further filtered according to another field, 'type of organisation'⁴.



The types of organisation listed in the database are PRI, CCO, OTH, IND, PAR, PUB. The possible types of business are (1) sole proprietors, (2) partnerships (3) public or state entity, (4) company, close corporation, trust or club, (5) other and (7) unknown.

Unfortunately, there seems to be some confusion regarding the classification. Indeed, a cross-check of both fields suggests that the 'type of business' data may not be entirely reliable, as the entries do not necessarily correspond to each other. For example, a type of organisation coded 'Par' does not necessarily correspond to a business type coded '2' (partnerships) nor does organisation type 'PUB' correspond to business type '3' (public or state entity). Also, there were substantial missing data for the 'type of organisation' (42%).

Owing to these data problems, the estimation was based on a range.

2.5.5 Lifespan analysis from the Cape Town database

Reference population:

- The lifespan analysis was generally carried out on accounts which had been liquidated, suspended or recorded as 'dormant'. Other non-active accounts (such as the exempted entities) were not considered.
- The overall lifespan analysis was based on the accounts with a 'business type' coded 1, 2 or 4 (these are sole proprietors, partnerships, and companies, CCs, trusts and clubs). Although the majority of them by far are companies and CCs, the inclusion of a small number of non-business accounts, such as clubs, causes a risk of distortion.
- For the sectoral analyses, the problem is less likely to exist since most activities (such as agriculture, manufacturing and trade) refer to business only. Therefore all accounts carrying the relevant primary SIC code were included in the sectoral lifespan analysis. Sectors 84 and 9, which contain the largest number of non-business accounts, were excluded from the totals.

Calculation of lifespan:

- Generally speaking, the lifespan was calculated as the difference between the date on which the account was suspended / liquidated / registered as dormant, and the date of its registration. This is because the dates of establishment of the businesses were often missing, with missing data unlikely to follow the same pattern as available data.
- The 'levypayer's life' (based on the date of registration on the database) was therefore used as proxy for the entire lifespan of the business, posing the following problems:
 - Since the database was only established in 1987, the method could not capture the true age of accounts older than 17 years (the maximum lifespan of a business as levypayer).
 - Registration patterns were irregular, influenced more by levy collection
 efforts of the City's finance department than by economic factors. In
 particular, measures specifically targeted at firms that had omitted to register,
 caused an acceleration of new registrations in 2002 to 2004, although most
 of the firms have been in existence for a long time.

• From the 29,373 accounts which were suspended / liquidated / dormant, 10,558 had to be ignored because the registration date was missing or aberrant (481 cases), the liquidation date was missing or aberrant (22 cases), or the suspension date was missing or aberrant (10,055 cases). The high number of missing or aberrant suspension dates may affect the reliability of the statistics.

Presentation of the results by sector:

• Unlike the 2003 report, it was preferred to present median as opposed to average lifespan of each sector to control for abnormal values in this 2004 Review.

2.5.6 Turnover growth analysis from the Cape Town database

The principle behind the turnover growth analysis was to compare, on an account-by-account basis, the turnover reported for December 2004 with turnover figures reported in the previous years, and to calculate, for that particular account, a real turnover growth rate. Specifically, the procedure was as follows:

Data preparation:

- The reference population, in each year, was made up of all the accounts recorded as active both in December 2004 and in 2002 or 2000 respectively. The reference population is therefore slightly more numerous for the two-year growth analysis.
- Technically, it was necessary to establish a link between the databases of each year to connect each 2004 turnover to the historical figures.
- A problem arose in connection with the 'zero values':
 - For example, in the 2000 to 2004 growth analysis, 28,517 accounts were identified that were active on both dates. Of those, 3,597 were recorded with a zero turnover in 2000 (13% of total), and 7,856 accounts had a positive 2000 turnover but their 2004 turnover was 0 (28% of total).
 - It was decided to ignore the zeros values, both for 2000 or 2002 (since no growth rate can be calculated on a zero turnover) and for 2004 (since the 0 is likely to mean delayed or omitted reporting, rather than an absence of business income). A problem of this approach is that it may have caused an underestimation of the number of declining businesses.

Calculation of an inflation-adjusted rate:

- The reported turnover for 2004 was divided by the reported turnover for 2000 or 2002 to obtain a growth factor for the period.
- The root of this growth factor was then extracted to obtain a nominal growth rate per annum.
- The inflation for the periods was derived from the McGregor's database; the rates used were the average inflation rates per annum as the roots of the compound yearly rates.
- The nominal growth rate per annum was then inflation-adjusted by division.



Results analysis:

- Sector analyses were based on primary SIC only. Due to the high number of sectors, the growth information was reduced to a single measurement, rather than histograms. The median growth rate was preferred to the average growth rate as single measurement, since the averages could have been distorted by some very high growth rates for businesses with a very low 2000 turnover.
- The analysis by firm age was based on the date that the business was established, to the extent that such data were available. Unfortunately, the data were often not available. For example, from the 17,064 accounts with a positive turnover in both 2000 and 2004, only 11,634 (68%) had a usable date of establishment. A study of the registrations of the last few years has shown that for many of the businesses registered after 2002, no date of registration was captured in the database.