



Towards an  
**African e-Index**

SME e-ACCESS AND USAGE  
across 14 African countries

2006



## Research ICT Africa!

Research ICT Africa! (RIA!) fills a strategic gap in the development of a sustainable information society and network knowledge economy by building the ICT policy and regulatory research capacity needed to inform effective ICT governance in Africa. The network was launched with seed funding from the IDRC and seeks to extend its activities through national, regional and continental partnerships. The establishment of the RIA! network emanates from the growing demand for the data and analysis necessary for an appropriate but visionary policy required to catapult the continent into the information age. Through network development, RIA! seeks to build an African knowledge base in support of ICT policy and regulatory design processes, and to monitor and review policy and regulatory developments on the continent. The research arising from a public interest agenda is made available in the public domain and individuals and entities from the public and private sector and civil society are encouraged to use it for teaching, further research, or to enable them to participate more effectively in national, regional and global ICT policy formulation and governance. The network currently consists of nodal members from 14 African institutions. The network is hosted by the Witwatersrand University LINK Centre in Johannesburg and directed by Prof Alison Gillwald. See [www.researchICTAfrica.net](http://www.researchICTAfrica.net) for further information.

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## Currency Converter

Country	2005 Implied PPP conversion rate	2005 per US Dollar: End of Period	2005 per US Dollar: Period Average
<b>Botswana</b>	2.78	5.51	5.11
<b>Cameroon</b>	216.68	556.04	481.58
<b>Ethiopia</b>	1.28	8.68	8.67
<b>Ghana</b>	1,785.72	9,130.82	9,072.54
<b>Kenya</b>	39.11	72.37	75.55
<b>Mozambique</b>	6,139.89	24,180.00	23,060.00
<b>Namibia</b>	2.69	6.33	6.36
<b>Nigeria</b>	72.23	129.00	131.27
<b>Rwanda</b>	92.41	553.72	557.82
<b>South Africa</b>	2.83	6.33	6.36
<b>Tanzania</b>	506.28	1,165.51	1,128.93
<b>Uganda</b>	311.58	1,816.90	1,780.70
<b>Zambia</b>	2,953.52	3,508.98	4,463.50
<b>Zimbabwe (official)</b>	2,267.78	77.97	22.36

Source: <http://www.imfstatistics.org>

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# Introduction

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The SME sector has an important role to play in the present and future economic development, poverty reduction and employment creation in developing economies (Hallberg, 2000). Stern (2002) stresses that the SME sector is the sector in which most of the world's poor people work. SME sector growth largely exceeds the average economic growth of national economies in many countries and contributes significantly to employment creation. Accordingly, governments and donors alike have recognised the important role of the SME sector for overall development. As a result, many government policies are geared towards supporting their growth through a variety of programmes that range from tax incentives to technical assistance; from regulatory provisions to policy interventions; training and other types of business development services (O'Shea & Stevens, 1998). Arising from this, one of the key issues is to identify the current information practices and needs, as well as the obstacles that SMEs face in their daily business activities, and to provide guidance in creating relevant policy initiatives that will lead to more economic growth and employment.

The SME e-Access and Usage survey was carried out by the Research ICT Africa! (RIA!) network in 14 African countries between the last quarter of 2005 and the first quarter of 2006. Its primary objective is to understand the impact of ICTs on private sector development, and how ICTs can contribute to a vibrant SME sector and economic growth in the context of developing economies. The countries covered included Botswana, Cameroon, Ethiopia, Ghana, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.

*The SME sector is where most of the world's poor are currently working.*

To this end, the SME e-Access & Usage survey was motivated by the lack of clarity about the impact of ICTs on small businesses. The literature to date has failed to create a tight link between the use of ICTs and issues

such as profitability and labour productivity. There are so many competing claims against government resources and time that a vague link between ICTs and economic growth and employment creation is not convincing enough evidence for governments to commit their resources. This survey aims to change that perception by providing solid empirical evidence of the link between ICTs and business performance based on firm-level evidence.

A major contribution of this survey to the existing understanding of SMEs in Africa is its use of a formality index to categorise SMEs. Past studies have treated formal, semi-formal and informal businesses uniformly, reducing the applicability of their analysis. A formal business is fundamentally different from an informal business in Africa. A formal business pays its taxes, is more likely to export and often is included in official census of SMEs. In contrast, the primary survival strategy of an informal business is to remain below the radar screen, not to pay taxes and not to form part of any official data. Apart from the obvious survey difficulties this presents, there is a more mundane business difference: informal businesses are also more likely to sell or produce anything that might make money, in contrast to more formal businesses that have a tendency to concentrate on a single product or set of products. The implication of this is that a Cobb-Douglas production function, for example, cannot be used to analyse SMEs, unless there is a declared interest only in formal SMEs. Of course, surveying only formal businesses would be telling half the story since about two-third of non-resource-driven GDP generation is derived from SMEs, and a large share of that from informal ones.

The establishment of the link between ICTs and profitability and labour productivity creates another set of policy imperatives for governments across the continent. ICTs are only useful if they can easily be acquired and used. The key obstacle identified by SMEs towards greater possession and use of ICTs is their cost. The high cost of ICTs in Africa has been attributed to policy choices that have limited competition, and the absence of regulatory capacity to regulate abuse of market dominance in wholesale and retail pricing (Gillwald, 2005 and Gillwald & Esselaar, 2004). This requires greater regulatory capacity, something that is missing from nearly all countries included in the survey. To illustrate this, most governments are exclusively focused on the direct contribution of ICTs towards the economy in terms of profits and staff complements of major telecommunications operators. However, as this report makes clear, it is the indirect contribution of ICTs towards economic growth that is truly transformative:

“ICTs have the largest beneficial impact in conjunction with other changes, including a new set of ICT skills/training, structural changes within business models and the economy, and institutional and

regulatory adjustments” (ITU, 2006: 39). This means that ICTs have to be looked at from a perspective that considers all causes of economic growth and attempts to provide a catalytic environment that uses ICTs to generate economic growth rather than the ICT sector's specific contribution towards GDP.

The outline of this report is as follows: the next chapter introduces the methodology that was used to achieve the objectives of this study, followed by two chapters providing a brief background of the SME sector and the ICT infrastructure in the 14 countries that participated in the survey. The fifth chapter focuses on ICT access and usage. Chapter Six looks at the impact that the usage of ICT has on the profitability and efficiency of SMEs. Chapter Seven summarises the main conclusions and policy recommendations arising from this analysis.





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# Methodology

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The target sample for each country was 280 SMEs. The SMEs were sampled based on target lists in the capital of each country and at least two other economically significant, urban locations. No random sampling procedure was used but the businesses were selected based on their profiles.

A tremendous effort went into the training of enumerators to understand the value proposition of a business - to understand how the business makes its money. Gathering financial information from SMEs is not an easy task. It required enumerators to build up trust with the entrepreneurs and an understanding of how businesses operate. Several check-backs were built into the questionnaire to check for consistency of responses while the interviews were conducted. This allowed enumerators to uncover when wrong or inaccurate information was provided. One reason that led entrepreneurs to provide inaccurate information, other than fear of higher taxation or competition, was the absence of record-keeping. Enumerators were trained to assist SMEs without record-keeping to estimate the values of fixed assets and other financial figures.

*Asking people who avoid paying tax for the profitability of their business is not an easy task.*

Implied purchasing power parity (PPP) conversion rates<sup>1</sup> were used to convert monetary values to US\$ for all countries. This allows us to use the data from the various countries in one dataset.

## SME Definition

SME definitions vary from country to country and are ideally defined sector specific. The size cut-off point for this survey is based on a

1. [www.imf.org](http://www.imf.org)

recommendation from the African Development Bank, which defines SMEs as having less than 50 employees. Sector specific definitions will be derived from the analysis collected in the survey and presented in another paper.

**TABLE 1. CHARACTERISTICS OF SMEs**

<b>Types</b>	<b>Characteristic (not hard rules!)</b>
Informal Operator/ Survivalist	<ul style="list-style-type: none"> <li>• no employees</li> <li>• no distinction between business and personal finances</li> <li>• does not keep records</li> <li>• does not pay taxes</li> <li>• is not registered with any authority</li> <li>• engages in business activities to pay for daily expenses</li> </ul>
Informal Micro or Small Business	<ul style="list-style-type: none"> <li>• less than 10 employees</li> <li>• no distinction between business and personal finances</li> <li>• may not keep records</li> <li>• may not pay taxes</li> <li>• may not be registered with any authority</li> <li>• has physical address and contact details</li> </ul>
Formal Micro or Small Business	<ul style="list-style-type: none"> <li>• between 10 and 49 employees</li> <li>• keeps records</li> <li>• has separate bank account</li> <li>• pays taxes</li> <li>• is registered with all required authorities</li> <li>• has physical address and contact details</li> </ul>

The ILO (2004) distinguishes three types of enterprise models:

- Pre-entrepreneurial activities;
- Micro-enterprises; and
- Small enterprises.

This paper distinguishes between survivalists or informal operators and businesses. Survivalists or informal operators engage in business activities with the aim of generating enough income for day-to-day consumption, rather than growing a business that generates a sustainable stream of income. Survivalists or informal operators usually do not distinguish between business and personal finances, do not keep records, do not pay taxes and are not registered with any authority. Money from sales or services rendered is predominantly consumed immediately for private purposes (same day, week or month). A micro and small business in contrast has some degree of formality. This might include a business bank account, formal work contracts for employees, a physical address with contact details, registration with receivers of revenue and other authorities, and so forth. The line between informal operators and survivalist on the one hand and informal businesses on

the other is fluent and varies from country to country. The distinction between formal and informal businesses varies equally from country to country. Only businesses that complied with the following characteristics were sampled:

- Physical presence (shop, workshop, house from where the business operates) with contact details (a minimum of two out of these three: street number, post box, telephone/cell-phone number);
- Business must operate with the aim of generating sustainable income streams;
- Business should be independent and not be a branch of a larger business;
- Business must have less than 50 employees.

## Sample

A qualitative question regarding the business activity was asked and the response to it used to classify SMEs in terms of International Standard

**TABLE 2. SAMPLE DISTRIBUTION - ISIC CLASSIFICATION**

Tabulation	Total
D: Manufacturing	728
F: Construction	232
G: Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods	1,325
H: Hotels and restaurants	317
I: Transport, storage and communications	429
J & K: Financial intermediation & real estate, renting and business activities	436
M & N & O: Education, health, social work, other community, social and personal service activities	500
Total	3,967

Industrial Classification (ISIC). The number of sampled businesses for different ISIC clusters is shown in Table 2.

## Formality Index

The data collected from SMEs was used to classify responding SMEs into informal, semi-formal and formal businesses. Table 3 shows the variables that contributed to the formality index.

**TABLE 3. COMPUTING THE FORMALITY INDEX**

Question	Value	
Form of ownership?	Sole proprietor, Partnership	0
	CC, Pty	0.5
Is your business registered with the Receiver of Revenue? (pay taxes?)	No	0
	Yes	0.5
Is your business registered for VAT?	No	0
	Yes	1
How many of your employees have a written employment contract?	None	0
	One or more	1
Does your business strictly separate business from personal finances?	No	0
	Yes	0.5
Does your business keep financial records?	No	0
	Simple bookkeeping	0.5
	Double entry bookkeeping	1
	Audit annual financial statements	1
Maximum Total		4.5

Proprietary Limited companies (PTYs) and Close Corporations (CCs) usually require registration with various ministries such as finance and/or trade and industry, whereas sole proprietors and partnerships do not necessarily need to be registered with either in most countries surveyed.

*Formality is a state of legality and skill levels.*

A SME registered for VAT is also more likely to be formal than one that is only registered for income tax, since VAT handling requires sophisticated record-keeping. Having written employment contracts for employees also contributed toward the formality index. Having a written contract allows employees to enforce the rights and minimum wages as stipulated in labour laws while those without contracts can often be hired and fired at will. Whether a business strictly separates personal from business finances and the sophistication of record-keeping and accounting were also included in the formality index. The maximum value a business could achieve in terms of the formality index is 4.5. Businesses were then categorised into informal, semi-formal and formal. The breakdown of this classification is shown in Table 4. Table 5 displays the breakdown of the sample in terms of formality categories and countries.

**TABLE 4. CLASSIFICATION OF FORMALITY INDEX**

Formality Index	Index points
Informal	1.5 points or below
Semi-formal	2 points or more and less than 3.5 points
Formal	3.5 or more points

**TABLE 5. SAMPLE BREAKDOWN BY FORMALITY AND COUNTRY**

Country	Informal	Semi-formal	Formal	Total
Botswana	50	65	141	256
Cameroon	184	69	27	280
Ethiopia	152	83	47	282
Ghana	92	106	82	280
Kenya	137	90	50	277
Mozambique	70	109	101	280
Namibia	107	108	92	307
Nigeria	146	75	44	265
Rwanda	182	59	38	279
South Africa	102	76	112	290
Tanzania	65	104	94	263
Uganda	151	139	61	351
Zambia	102	95	79	276
Zimbabwe	66	57	158	281
<b>Total</b>	<b>1,606</b>	<b>1,235</b>	<b>1,126</b>	<b>3,967</b>

## Access & Usage Indices

Three indices are computed to compare ICT usage across formality categories with each other, the ICT possession Index, the ICT Usage Index and the ICT Usage Intensity Index. The ICT usage intensity among businesses is calculated using the ICT Usage Index and dividing it by the ICT Possession Index. The ICT Usage Intensity Index shows the extent to which businesses employ ICT for business purposes in terms of what they have in ICT devices.

*Indices summarise information and allow simplified pattern identification.*

The ICT Possession Index looks at what businesses have in terms of ICT equipment and facilities. 1 point is given for each of the ICT devices owned by a business, and a maximum of 6 points is obtained should a business have all 6 items. Table 6 shows how this index is calculated.

The ICT Usage Index was developed by awarding one point for any employment of ICT facilities and equipment to carry out business transactions.

**TABLE 6. ICT POSSESSION INDEX**

Yes, the business has one or more working telephones	1
Yes, the business has one or more working mobiles	1
Yes, the business has one or more working fax machines	1
Yes, the business has one or more post boxes	1
Yes, the business has one or more working computers	1
Yes, the business has an Internet connection	1
<b>Maximum Value</b>	<b>6</b>

This gave a maximum total of 15 points should a business be making use of all the ICT facilities and equipment mentioned in this study for business purposes. This is shown in Table 7.

**TABLE 7. ICT USAGE INDEX - INDEX VALUES**

The business uses the telephone to communicate with clients and customers	1
The business uses the telephone to order supplies	1
The business uses the mobile to communicate with clients and customers	1
The business uses the mobile to order supplies	1
The business uses the fax to communicate with clients and customers	1
The business uses the fax to order supplies	1
The business uses the post box to communicate with clients and customers	1
The business uses the post box to order supplies	1
The business uses computers to communicate with clients and customers	1
The business uses computers to order supplies	1
The business uses the Internet to communicate with clients and customers	1
The business uses the Internet to order supplies	1
The business sends SMS or text messages for business purposes	1
The business receives SMS or text messages for business purposes	1
The business uses the internet for business purposes	1
<b>Maximum Value</b>	<b>15</b>

# SME Sector

This chapter provides background information about the small and medium size enterprise (SME) sectors in the countries that participated in the survey. The chapter discusses economic significance of the SME sector and policy initiatives.

## Botswana

### *Sebusang Sebusang*

The SME sector is not very well researched and documented in Botswana. This is somewhat surprising particularly when one considers the fact that government and other policy advocacy groups have identified it as an important cog in the economic well-being of the country, partly due to its employment creation potential as well as the impact on reducing poverty (GOVB, 2003b & Jeffries, 1999). There has however been some effort to document and streamline efforts to support the sector since the adoption of the Policy on Small, Medium and Micro Enterprises in 1999 (GOVB, 1999). This document sets the policy out in some detail (Jeffries, 1999):

- A new legal and institutional framework for SMME support consisting of the Small Business Act, the Small Business Council and the Small Business Promotion Agency;
- New sources of finance for SMMEs through a micro-credit scheme and a credit guarantee scheme operated through commercial banks;
- Regulatory changes, encompassing reform of the Companies Act, sales tax regulations, licensing laws and reserved activities policy; and
- Improvement of business education and training.

*The SME sector is not well researched in Botswana, which is surprising given its importance to economic growth.*

*88% of small manufacturing businesses are owner run.*

Using the manufacturing study information (BIDPA, 2006) as indicative of the overall pattern, there exists a clear bias against women and youth in firm ownership. The youth (less than 35 years) own only 19% of the firms surveyed whilst women own 36%. It would seem (in the manufacturing firms) that most firms are owner-run (88%). In an unexpected result, the BIDPA study found that 55% of all owners had post secondary education, and are thus generally well-educated. Looked at differently, in terms of experience, 61% of all owners and 75% of principal owners had other forms of training in their line of business. Thus on the basis of the above somewhat specialised SMME sector the managers seem to have some capacity to operate their businesses (in the manufacturing realm); it is however difficult for lack of information to surmise that this scenario holds for the overall SMME sector.

### SME Definition

In defining the SMME sector, the SMME policy adopted the three-tier proposal of the SMME Task Force whose report informed the policy formation. Enterprises are categorised on the basis of the number of employees as well as the annual turnover. Micro-enterprises are thus defined as those with less than six workers, including the owner, and a turnover of less than P60,000. Small enterprises are on the other hand defined as enterprises having less than 25 employees and an annual turnover of between P60,000 and P1,500,000. Finally, medium enterprises are regarded as having less than 100 employees and an annual turnover of between P1,500,000 and P5,000,000.

**TABLE 8. SME DEFINITION<sup>a</sup>**

Type	Employees	Turnover
Micro	< 6 incl. owner	turnover < P60,000
Small	< 25	P60,000 < turnover < P1,500,000
Medium	< 100	P1,500,000 < turnover < P5,000,000

a. Source: GOVB (1999)

*There are about 50,000 micro enterprises in Botswana.*

### Size of the SME Sector

The policy document estimated the number of employees in micro enterprises as 50,000, followed by 6,000 small enterprises and lastly 300 medium sized enterprises in the year 1999. The policy further estimated that 70% of micro enterprises are in rural areas and are 75% owned by women, lack formal registration and operate from residential premises. The breakdown in terms of business activity is assumed to be trading (65%), manufacturing (25%) and other sectors (10%). Small enterprises on the other hand are estimated to be 80% urban based, with the services sector (40%), manufacturing (20%), retailing (16%), transport and distribution (10%), construction (6%) and agriculture (8%). No estimated percentages are given for medium enterprises other than the statement that the majority of them are involved in some form of manufacturing.



### Contribution of SMEs to GDP and Employment Creation

In terms of estimates of the overall economic contribution of the SMME sector to the national economy, no definitive numbers exist other than broad ranges of estimated GDP contribution based on an earlier (1996) study. The estimates are 30-45% for the sector compared with 38-48% of GDP for larger firms. The policy document further estimates the SME sector (where reference to SME excludes the micro-level enterprises) as accounting for 50% of formal employment. The raw numbers are 125,000 for the whole SMME sector.

Estimates from the Botswana Institute of Development Policy Analysis (BIDPA, 2006) put the SMME contribution to employment at 32%, the majority of which is in the micro sector at 14%. This figure compares with 32% for large firms and 36% for government. Whilst the numbers as per estimates from different sources do not necessarily agree, they all point to the critical nature of the contributions made by SMMEs in the economy, and more so when considering job creation potential.

*The most recent estimates of the SME sector contribution to GDP are based on a 1996 study which estimated that it makes up between 30% and 45%.*

### SME Policies

As already indicated above the starting point in considering the SMME sector coherently must be the Policy on Small, Medium and Micro Enterprises of 1999 (GOVB, 1999).

#### THE SMME POLICY AND THE SMALL BUSINESS ACT

The SMME policy has the following as its guiding principles (as summarised in the BIDPA briefing):

- Create an enabling environment in which SMMEs will flourish and grow;
- Provide an integrated approach to SMME development which ensures cohesion and linkages between the various programmes;
- Ensure that SMME policy is implemented effectively and assessed against measurable objectives; and
- Discourage dependency upon Government.

*The SMME policy of 1999 has, as one of its guiding principles, the aim of creating an enabling environment in which SMEs will flourish.*

The specific objectives of the policy were to:

- Foster citizen entrepreneurship and empowerment;
- Achieve economic diversification;
- Promote exports;
- Encourage the development of a competitive and sustainable SMME community;
- Create sustainable employment opportunities;
- Promote linkages between SMMEs and primary industries in agriculture, mining and tourism; and
- Improve efficiency in the delivery of services to businesses.

The Small Business Act of 2003 (GOVB, 2003a) was one of the outputs envisaged in the SMME policy. The Act establishes the Local Enterprise Authority (LEA) and the Small Business Council (SBC). The Small

*The Small Business Act of 2003 covered the reduction of red tape for small businesses.*

Business Council is to act as the advisory body to the Minister of Trade and Industry at policy and programme formulation level. Section 4 of the Act spells out thirteen (13) functions of the LEA covering assistance in start up processes, improvement of business skills, opening access to Government procurement contracts for goods and services, business linkages, productivity and competitiveness enhancement in the export markets, monitoring and evaluation, access to financial resources, simplification of regulations and the provision of infrastructure and facilities.

*The Small Business Council monitors progress of SMEs in the context of the overall economy.*

The Small Business Council will on the other hand review on an annual basis the extent to which progress has been made in achieving:

- Promotion of citizen entrepreneurship;
- Diversification of the economy;
- Promotion of exports;
- Development of a competitive SMME community;
- Creation of sustainable employment opportunities;
- Promotion of vertical integration and horizontal linkages between SMMEs and primary industries in agriculture, mining and tourism;
- Improved efficiency in the delivery of services to business; and
- Promotion of business linkages between small and large enterprises.

*The Industrial Development Policy of 1998 promotes linkages between SMEs and larger industries.*

#### **THE INDUSTRIAL DEVELOPMENT POLICY OF 1998**

The policy acknowledges the challenges and opportunities brought about by globalisation and thus advocates productive, innovative and internationally competitive industries for Botswana.. One of the principles of the Industrial Development Policy therefore, is the encouragement of highly productive export industries. To facilitate the development of SMMEs, the Industrial Development Policy endeavour to deliver on the following:

- Improved availability of infrastructure through partnerships with the local authorities and the private sector;
- Establishment of Business Assistance Centres and business associations through a co-operative approach between government, local authorities and NGOs;
- Review of the Integrated Field Services in order to re-focus the role it plays in providing assistance to the rural small business entities. The Local Enterprise Authority has since been established as a step towards reforming the Integrated Field Services;
- Make an effort to promote linkages between SMMEs and larger competitive industries;
- Promote linkages of the SMMEs with sectors such as agriculture, minerals and wildlife and tourism in order to facilitate the production of value-added products for exports (BIDPA, 2006).

### CITIZEN ENTERPRISES DEVELOPMENT AGENCY 2002

The citizen entrepreneurship development agency disburses subsidised funding to the SMME sector. It lends from P500 to P150,000 at 5% interest per annum, payable over a period of five years, for the small scale category of enterprises. The figures are then from P150,001 to P2 million at 7.5% interest per annum, payable over a period of 7 years, for medium scale enterprises. A Venture Capital fund has recently been established that is intended to facilitate funding of projects that could be both locally and foreign owned.

*The Citizen Enterprises Development Agency of 2002 encourages the development of competitive and sustainable businesses.*

CEDA has as its objective the nurturing of businesses that add value to the economy of Botswana, through the following:

- Fostering citizen entrepreneurship and empowerment through encouragement of local entrepreneurial culture and increasing the level of entrepreneurial skills;
- Achieving economic diversification in line with the national Development Plan 8 theme of sustainable economic diversification;
- Encouraging the development of competitive and sustainable citizen businesses by rewarding competitiveness and discouraging inefficiency;
- Creating sustainable employment opportunities through development of sustainable citizen businesses;
- Promoting the development of vertical integration and horizontal linkages between citizen businesses and primary industries in agriculture, mining and tourism through effectively pursuing the many small business opportunities associated with the exploitation of natural resources;
- Improving efficiency in the delivery of services to businesses, in particular the small business support services (eg advisory and training services), which have been of inferior quality and poorly marketed in the past, by delivering these services more effectively through more thorough preparation.<sup>2</sup>

2. [www.ceda.co.bw](http://www.ceda.co.bw)

*The government guarantees, via the credit guarantee scheme, up to 60% of bank loans.*

#### **CREDIT GUARANTEE SCHEME**

As a way of reducing the constraint of accessing finance by the SMME sector, particularly from commercial banks, the government started a credit guarantee scheme where government guarantees up to 60% of bank loans extended to citizen-owned SMMEs from P10,000 to P250,000 (BIDPA, 2006).

#### **PROCUREMENT-RELATED POLICIES AND PROGRAMMES**

Through the Local Procurement Programme (LPP) government has deliberately set aside 30% of its procurement budget and that of government parastatals for local firms. Recently, this has been extended further with the issuing of guidelines on the use of locally manufactured goods and services (by the Public Procurement and Asset Disposal Board (PPADB) assuming that these goods are locally available. The PPADB was formed by an act of parliament, the Public Procurement and Asset Disposal Act of 2001 (GOVB, 2001a), and was mandated to provide “an effective public procurement and asset disposal system through reviewing bid packages against set standards, adjudicating, awarding bids and registering contractors”.<sup>3</sup>

The SMME sector stands to benefit from the local procurement and preference policy that for some tenders would reserve 30% for Botswana-based or citizen owned-companies.

#### **VALUE ADDED TAX ACT (VAT) 2001**

The VAT Act (GOVB 2001b) has no special dispensation for small businesses other than allowing for the deduction of input tax, provided the enterprises have registered for VAT with the Director of VAT. The other provision is that enterprises with turnover of less than P250,000 are not required to register for VAT but can do so if they wish to use the input tax deduction provision.

As aptly captured by the BIDPA/CEDA report (BIDPA, 2006), SMEs are unlikely to benefit from exemptions and special provisions in the VAT Act, other than the very small ones whose lack of a proper record-keeping system would have made mandatory VAT registration an added burden.

3. [www.ppadb.co.bw](http://www.ppadb.co.bw)

## Cameroon

*Olivier Nana Nzépa & Robertine Tankeu Keutchankeu*

Once considered an economic miracle, Cameroon's economy performed extremely well during the period 1961 to 1985. In the mid 1980s the country's economy suddenly collapsed due to a sharp fall in world prices for its main export commodities and economic management. Badly chosen economic strategies made things even worse. The response of the government to the unexpected economic decline was to expand the public sector. Public agencies and enterprises were established with government subsidies. A complex system was put in place to regulate prices of both goods and services while quantitative and qualitative restrictions were imposed on external trade. Since then a structural adjustment programme that started in 1994 has shown some progress in redefining the state's role in the economy and reversing Cameroon's flagging economic fortunes.

"Cameroon exports a wide range of products, with great dependence on oil (39.5% of revenues in 2004). Wood exportation follows with 14.5%, then cocoa (8.8%), cotton (5.1%), aluminium (3.7%) and coffee (2.8%). Oil export rose the last two years, despite failing production. Imports were up in 2004 about 4% after dropping when work on the Doba-Kribi pipeline came to completion. Fuel imports rose 15% per year since 2004 and machinery and equipment by 10%. The 1.4% of GDP trade surplus in 2004 is gradually declining and is expected to reach 0.4% in 2006 because of the drop in oil production" (OECD, 2005a: 142).

### SME Sector in Cameroon

The World Bank's Doing Business survey finds that "12 steps are needed to start a business in Cameroon, slightly more than the African average of 11. But it only takes 37 days, compared with 63 elsewhere on the continent. It also refers to the labour market as much more rigid than the African average for hiring (61 on a scale of 100, against the average 53.2), and dismissal (80, compared with the average 50.6)" (OECD, 2005a: 144). The protection of investors is another Achilles heel, with the country scoring very low (1 on a scale of 7) for transparency. There is also still a lot to do "regarding contract-compliance, where 58 steps are required for a complaint to be processed, over an average of 585 days" (OECD, 2005a: 144). The African average is 35 steps over 434 days. "Delays in repaying internal debt have led the global ratings agency Fitch to question the creditworthiness of the government of Cameroon, and Standard & Poors downgraded its rating of the country from B (speculative) to CCC (high default risk) at the end of 2004, for long- and short-term commitments" (OECD, 2005a: 144).

*In an attempt to reduce the economic decline, the public sector was expanded and the price of goods was regulated.*

*Contract enforcement in Cameroon takes on average 585 days.*

*The collapse of formal loan facilities has seen a rise in informal loans which charge skyrocketing interest rates.*

The biggest burdens on SMEs are corruption (a permanent burden and extra cost to firms) and access to finance. "The economy is much less competitive because of the loan problem, corruption, tax policies, red tape and poor basic infrastructure according to 2003-04 report on worldwide competitiveness." (WEF, 2005). The various facilities providing "SMEs extra loan security such as the Fogape, have collapsed because of bad management. Banks are very wary of lending money to SMEs, complaining of shoddy applications and lack of serious guarantees. They provide no medium- or long-term funding and the most they offer are overdrafts. As a consequence firms resort to quicker and easier forms of funding such as informal loans, joint savings arrangements, relatives or street moneylenders" (OECD, 2005a: 144) who charge skyrocketing interest rates (sometimes 20% per month) and request rapid repayment.

"A survey of 300 SMEs from the manufacturing sector carried out by Cretes in 2001 confirmed that SMEs increasingly needed expansion capital. They started by seeking help from credit institutions, then tontines, their suppliers, or international bodies. The average size of loans to SMEs dropped by 33% between 2000 and 2002, and 54% in 2001-2002, while supplier credits grew steadily. 35% of SME funding needs were unmet in 2001. This explains the importance of supplier credit as the main source of help for those firms which have no long-term funds for investment" (OECD, 2005: 144). However, new sources of funding for SMEs have "started to bear fruits, such as Afriland First Bank or PRO-PME, a Canadian project" (OECD, 2005: 144). These look like emergency solutions for a country which clearly lacks proper facilities to support SMEs.

*In recognition of the role of SMEs in Cameroon's economic growth, a Ministry of SMEs was created in 2004.*

In December 2004 the Ministry for SMEs was created which has the responsibility to design and implement SME policies. Prior to that the Ministry of Industry and Trade was in charge of SMEs. The creation of a separate ministry for SMEs is indicative of the importance of an expanding SME sector for Cameroon's economy.

Besides the governmental authority, a parastatal authority represented by the CCIMA is doing its best to support SMEs. Organisations from the civil society represented by NGOs, associations, trade unions, international cooperations, financial institutions and enterprises are also contributing to the existence of the sector.

The Cameroonian legal and taxation environment distinguishes 3 forms of operators: traders, importers and exporters. To be a trader, one needs to be registered with the business registrar and pay a licence fee. To be an importer or exporter, one needs the approval of the Ministry of Trade & Industry. The taxation depends on the legal status of the enterprise. Four systems of taxation are in existence:

- “Liberatoire” taxation: turnover up to 15 million;
- Basic system: turnover between 15 to 60 million;
- Simplified real system: turnover between 60 to 100 million;
- Real system: turnover more than 100 million.

Due to the high taxation, most enterprises prefer the status of sole proprietor. A minimum flat tax of CFA 660,000 is paid by enterprises, independent of income generated. The legal status of a SME does not influence the rate of VAT, which is 19,25%.

### SME Definition

Cameroon has several definitions for SMEs. The most common one is based on the number of employees. The Ministry in charge of SMEs is in the process of developing a common definition based on staff, capital and turnover.

*The definition of SMEs is an enterprise of up to 200 employees and at least 51% of capital owned by Cameroonians.*

**TABLE 9. SME DEFINITIONS**

	FOGAPE	Central Bank	Investment Code
Turn-over	Turnover equal or less than 1 billion cfa	Equal to or less than 500 million cfa	
Capital	Investment accrued doesn't exceed 500 million cfa	Fixed assets don't exceed 100 million cfa	Investment equal or less than 1,5 billion cfa and at least 35% of the capital has to be domestic
Debt	Short term credit doesn't exceed 200 million cfa	Short term credit doesn't exceed 100 million cfa	
Other	At least 51% of the capital and the managers are Cameroonians	The majority of the capital and managers are Cameroonians	Creation of permanent jobs for Cameroonians up to at least one job per 5 million investment programmed in the enterprise

At the moment, three definitions are utilised to characterise the sector, from FOGAPE, the Central Bank of Central Africa and from the Investment Code. However, these three definitions don't take into consideration factors like the number of employees and vulnerable groups such as women, youth or handicapped. A program called “4P” (Programme Prioritaire de Promotion des PME Camerounaises, Program for the Promotion of Cameroonian SMEs), initiated by Cameroonian government with the technical assistance of the United Nations, also defined SMEs for their purpose. The definition is based on the staff and the source of capital. An SME is an enterprise with up to

200 employees and the capital is owned at least 51% by Cameroonians. Independent of any definition SMEs share some common characteristics:

*SMEs have common features such as the limited access to finance and are usually limited to major urban areas.*

- Limited access to finances;
- Employees usually family relations/often no binding working contract;
- Operate mostly in major towns and cities;
- Show management problems (go bankrupt often);
- Limited fixed assets;
- Most proprietors/owners have no formal education in business.

### Size of the SME Sector

*It is difficult to estimate the size of the SME sector in Cameroon, but it is estimated to consist of 80% of all enterprises.*

Tax returns unfortunately do not help to estimate the size of the sector, since they aggregate all productive activity indiscriminately (such as that of licensed street-traders). The data provides only details of the number of firms by turnover, which is often under reported. “The Douala Chamber of Commerce keeps a breakdown, but only of member firms” (OECD, 2005a: 144). The National Institute of Statistics and the employer files from the Social Security Body (CNPS) show that about 80% of enterprises in Cameroon are SMEs. The most recent statistic (2003) records 72,258 enterprises registered to the CNPS among which, 57,806 from the SME sector. The breakdown of that figures shows the Littoral province leading the pack with 46.9% of enterprises follow by the Centre (19.4%) and the South West (12.1%). Three quarters of enterprises are in the tertiary sector and 69% of them have engaged with whole and retail trade.

**TABLE 10. DISTRIBUTION OF FIRMS BY NUMBER OF EMPLOYEES<sup>a</sup>**

No. employees	Frequency	%
NA	66,874	92,6
1- 4	4,395	6,1
5- 9	690	1,0
10- 14	145	0,2
15- 24	77	0,1
25- 49	43	0,1
50-149	24	0,0
150- 499	10	0,0
Total	72.258	100

a. Source: SEN1/CNPS database, 2004

*The major sector of the economy in which SMEs are active is agriculture.*

The national classification of enterprises by activities considers 43 categories of activities with four of them directly to do with the ICT sector:

- Manufacturing of equipment and communication and audiovisual machinery;
- Transport, storage and communication;



- Post and Telecommunications;
- Services for enterprises.

### Contribution of SMEs to GDP and Employment Creation

The lack of accurate data makes it difficult to pinpoint the contribution of SMEs to GDP and employment creation. In a study published by the French Ministry of Foreign Affairs, Cameroon has a Human Development Index (HDI) of 134, far behind Lebanon (69) and Mauritius (71). Within the Central African Economic and Monetary Community (CEMAC), the country ranks behind Gabon (123), Equatorial Guinea (131) and above Congo (152), Central African Republic (166) and Chad (167). The country GDP is US\$ 8.7 billion, in which agriculture accounts for 34%, the industry for 4.3% and services 18%. The unaccounted for percentage (43.7%) is believed to belong to the informal sector. The same study stresses that in agriculture, 80% of the GDP is considered to be due to SMEs, whereas they account for 20% in industry and 50% in the services sector. The aggregation of the various data undoubtedly demonstrates that three-quarters of employment in the private sector is provided by the SMEs. As such, SMEs are second to the State as job suppliers in Cameroon.

*It is estimated that the informal sector accounts for 43.7% of GDP.*

### SME Policies

The state of the SME sector in Cameroon is the legacy of prior policies and strategies. In the early years of the country's independence, priority was placed on the development of agriculture and industry, since these two sectors were the driving force behind the Cameroon's growth rates between 1961 and 1997. "During that period agriculture accounted for almost 34% of GDP, employing 80% of the labour force and providing 85% of exports. Industry was 17% of GDP. After the mid-1970s, the share of petroleum output increased to 18% of GDP. The economic growth rate was as high as 12% per year for the period 1977/78–1980/81, and despite the high population growth rate (3.1%) the per capita income was quite high. Public investment increased in this period, but tended to be unproductive" (Amin, 2002: 1).

At this point, the agricultural sector started to stagnate while the manufacturing sector grew rapidly. As result of these targeted government policies, the country's industry is fairly developed. After stagnating in the crisis years, industry became more competitive after the 1994 devaluation of the CFA franc. The sector nevertheless is plagued by smuggling and fraud. The weakness of the US dollar has also made local products less competitive. And since the completion of the Doba pipeline carrying oil from Chad to the port of Kribi, the lack of major projects is serving as fuel for the informal sector (OECD, 2005a).

*Since the completion of the Doba pipeline there have been no major infrastructure projects.*

Pressure to find new sources of wealth creation, in a context of continuing drop in oil production (lack of new discoveries and decline in production (from 35.6 to 32.9 million barrels in 2004) has rendered other sectors attractive (OECD, 2005a).

*The sources of new growth are the transport and telecommunications sectors.*

The services sector, with healthy performances of transport, telecommunications and non-tradable services are the new sources of growth. The number of SMEs in this sector is convincing the government to pay more attention to it. Despite a clear policy, reflexions have started, firstly among members of the GICAM, then at the Cabinet level. Now there is a yearly consultation between the government and the patronage about the course of action. The consensual policy the government is looking for has the ultimate goal to boost the sector and make SMEs more competitive and visible. It aims to create a more conducive and attractive business environment. The Ministry of SMEs created less than two years ago is the concrete expression of this new will (OECD, 2005a). Its sectorial strategy policy has these components:

- Development of an association of SMEs;
- Financing of SMEs;
- Training and counselling of SMEs;
- Institutional development and promotion of SMEs;
- Legal and taxation supervision;
- Sector-based development of SMEs;
- Regional development of SMEs;
- Promotion of investment in SME sub-sectors;
- Statistical organisation; and
- Information and communication.

## Ethiopia

*Lishan Adam*

*The SME sector provides a large amount of employment for women, with 65% of SMEs operated by women.*

The SME sector in Ethiopia provides employment and income opportunities for quite a sizeable portion of the population. 65% of the operators in the SME sector are women. Despite the fact that a substantial number of Ethiopians make their living from incomes generated from SMEs, the sector suffers from a range of constraints. Among the problems that hamper the growth of small and medium enterprises are lack of finance, underdeveloped entrepreneurial culture, poor product quality, shortage of raw material supplies, underdeveloped markets, limited demand for products and services, and poor access to infrastructure and technology.

### Definition of Small and Medium Enterprises

Small and micro enterprises in Ethiopia are categorised using various methods, including their size, location, capital investment and number of employees. The Central Statistics Authority (CSA) for the purpose of its survey classifies SMEs in the manufacturing sector based on employee size. Large-scale manufacturing enterprises hire more than 10 employees and use power-driven machines, small-scale manufacturing

establishments engage less than ten employees and use power-driven machines (CSAE, 2003). Those which do not use power-driven machines are regarded as handicraft enterprises. The “informal sector” refers to home-based or individual establishments or activities operated by the owner with a few or no employees (CSAE, 2002). In the services sector, the CSA classification is based on whether enterprises are engaged in wholesale, retail and services trade.

The amount of operational capital is the most widely used method for classifying enterprises in Ethiopia. According to the National Micro and Small Enterprises strategy (GOVE, 2006), micro enterprises are those small business enterprises with a capital of less than Birr 20,000 (US\$2,300), excluding high technology consultancy firms and other high technology establishments. Small enterprises are those business enterprises with a capital of above Birr 20,000 (US\$2,300) and not exceeding Birr 500,000 (US\$57,500), excluding high technology consultancy firms and other high technology establishments. This classification is also used for collecting taxes and revenues. For the purposes of revenues and taxes, enterprises are divided into three major categories:

- Category A: Enterprises with capital over Birr 500,000 (US\$57,500) and eligible for collecting Value Added Tax and payment of tax on revenues;
- Category B: Enterprises with capital above Birr 5,000 (US\$575) and eligible for payment of sales taxes and taxes on revenue;
- Category C: Enterprises with capital less than Birr 5,000 (US\$575) and eligible to pay taxes based on average income computed by the Internal Revenue Authority.

### Size of the SME Sector

The small- and medium-enterprise sector is the second largest employment-generating sector after the agriculture sector (Desta, 2002). In Ethiopia about 50 percent of the urban workforce is estimated to be engaged in the micro and small-enterprises sector (EBDSN, 2005). According to a survey conducted by the National Statistical Authority in 2002 (CSAE, 2002) there were more than 3,155,955 people engaged in the informal sector. There were 974,675 cottage/handicraft manufacturing establishments engaging 1,306,865 people. Out of the total cottage/handicraft enterprises 63.27% were in urban areas while the remaining 36.73% were located in rural areas.

The handicraft and cottage industry that is engaged in beverages, tobacco, textile, tanning, wood products and chemicals is the largest employer, followed by the informal sector engaged in agriculture, hunting, manufacturing, hotels and restaurants and transport. The distribution and service sector employs 753,906 people and generates the largest value-add to the economy. The value added to Gross Domestic

*The amount of operational capital is the most widely used method for classifying enterprises in Ethiopia.*

*The SME sector is the second largest employment-generating sector after the agricultural sector.*

*The contribution to GDP by the SME sector was estimated to be 3.4% in 1999.*

Product was estimated to be US\$580 million in 2002 of which the distribution and services sector generated about US\$348 million. The overall contribution of the SME sector to the GDP was 3.4% in 1999. Although recent estimates were unavailable, the contribution of SMEs has improved significantly over the last decade. Table 11 shows the landscape of the SME sector in Ethiopia based on a classification by the Central Statistical Authority that was collected in 2002.

**TABLE 11. THE LANDSCAPE OF THE SME SECTOR IN ETHIOPIA<sup>a</sup>**

Industry Group	Areas	Number	Persons Engaged	Value added in Birr
Informal sector operators	Agriculture, hunting, manufacturing, hotels and restaurants, transport, community and personal services	799,353	997,380	750,233,894 (\$87,00,000)
Handicraft and cottage industries	Beverages, tobacco, textile, tanning, wood products, chemical,	974,676	1,306,867	735,586,000 (\$86,000,000)
Distributive and Services Trade	Wholesale, retail, services, import, export	278,173	753,906	2,992,702,419 (\$348,000,000)
Small-scale manufacturing industries	Grain mills, manufacturing of textile, metal products, chemical products, luggage, apparel	31,863	97,781	525,038,090 (\$61,000,000)
	<b>Total</b>	<b>2,084,065</b>	<b>3,155,935</b>	<b>5,003,560,403</b>

a. Source: National Statistical Authority data for 2002

*The role of SMEs in achieving economic growth has been recognised by the Ethiopian government with the establishment of the Federal Agency for Micro and Small Enterprise development.*

### SME Policies

The government of Ethiopia recognises the role of small and medium enterprises for social and economic development. It issued an SME Development Strategy in 1997 followed by the proclamation for the establishment of the Federal Agency for Micro and Small Enterprises Development in 1998. Regional Micro and Small Enterprises Development Agencies were also established to promote the development of SMEs nationwide.

The overall objective of the SME strategy is to create an enabling environment for the development and growth of the sector and specifically to:

- Facilitate economic growth and equitable development;
- Create long-term jobs;
- Strengthen cooperation between SMEs;

- Provide basis for medium and large scale enterprises;
- Promote export;
- Balance preferential treatment between SMEs and bigger enterprises.

The Small and Medium Enterprise Development Strategy aims to integrate SME development into the national vision and economic development plans. The Government's Poverty Reduction Strategy Paper emphasises private sector development as a key objective in the poverty reduction matrix. Moreover, the country's Industry Development Strategy underscores private sector/SME development as an important means for industrialisation and overall economic development.

*While there is a general recognition of the role of ICTs in SMEs, there is no specific ICT support programme for SMEs.*

In order to implement these strategies, the government of the Federal Democratic Republic of Ethiopia initiated a wide range of programmes supported by the United Nations Industrial Development Organisation (UNIDO), GTZ and the European Union. A substantial amount of work has been done in promoting the capacities of SMEs particularly in business development services, technology and market support, and in strengthening of Federal and Regional Micro and Small Enterprises Development Agencies. Although technology support was one of the key areas of focus, the use of information and communications technologies did not feature in the support package for SMEs. Nevertheless, there is overall recognition of the role of ICTs in increasing productivity, improving efficiency and connecting SMEs cheaply to external contacts locally or globally.

## Ghana

*Godfred Frempong & George Essegbey*

SMEs have become critical agents in achieving Ghana's developmental agenda - wealth creation and poverty alleviation. The SME sector has been recognized as the engine of growth to propel the achievement towards the Millennium Development Goals. There is paucity of data on the size of the SME sector in Ghana. The last industrial/business census was carried out in 1987, however, there is general acceptance of the fact that SMEs form the majority of businesses in the Ghanaian economy. The majority of SMEs are located in three areas of the country – Accra/Tema, Kumasi and Takoradi, but the bulk (over 60 percent) can be found in Accra/Tema.

*The last business census was conducted in 1987 in Ghana, but it is estimated that SMEs form the majority of businesses.*

Ghana also has a large population of micro-scale businesses. The micro-operators have been critical of the development of policies and strategies for national economic development.

### SME Definition

No common definitions for SMEs exists in Ghana. The National Board for Small Scale Industries (NBSSI) defines small enterprises as those that

*A range of definitions is used for SMEs in Ghana.*

employ between 6 – 29 employees or have fixed assets not exceeding ₵780 million. The fixed assets exclude land and buildings. A medium enterprise is one employing between 30 – 99 employees with fixed assets not exceeding ₵2.5 billion. Micro scale enterprises are defined as those that employ up to five people or have fixed assets (excluding land and buildings) of ₵250 million.

However, the Ghana Statistical Service defines small enterprises as those with a workforce of below 10, and medium and large as enterprises employing above 10 employees. EMPRETEC Ghana Foundation has a general definition for SMEs. It defines an SME as any enterprise that is managed by its owner. By this definition, a large number of enterprises in the country fall within this category, as they are managed by their owners.

### **Contribution of SMEs to GDP and Employment Creation**

According to Parker et al (cited in Quartey and Kayanula, 2000) the SME sector employed 15.5% of the labour force in Ghana in 1994. The level of employment by SMEs might have changed. Analysts such as Quartey and Kayanula (2000), Ansah Ofei (undated) and Tagoe et al (2005) have all stressed the importance of SMEs in the economy of Ghana. The SMEs' output as a percentage of GDP accounted for 6% of GDP in 1998.

*70% of all enterprises in Ghana are micro to small, and SMEs contribute nearly 40% of GNI.*

However, Ghana has more small firms than medium and large ones. 70% of enterprises are micro to small sized enterprises. It is estimated that nearly 40% of Ghana's GNI is contributed by micro to informal activities (GOVG, 2003). It is believed that these small firms can more easily trigger growth in the economy than the large ones due to their numbers and the niches they occupy in the national economy (Bussel, 2001). As a result, much effort in terms of policy and government intervention has been geared towards developing and revamping the micro and small enterprise sector in the country. A number of specialised institutions has been established to support the development and growth of small businesses to enable them to contribute significantly to the national economy. The National Board for Small Scale Industries and EMPRETEC Ghana Foundation are among the host of institutions established to stimulate the development of micro and small scale activities. The government's inherent interest in micro and small business is epitomised by its move to develop specific policies for those businesses.

### **SME Policies**

*Government acknowledges the role of micro and small enterprises in economic development.*

The Ministry of Trade and Industry has a draft policy for micro and small enterprises (MSE) in the country. The draft policy does not touch on medium enterprises. It is assumed that government's vision for the medium enterprises may be covered by the general industrial policies. At the moment, consultations have begun for the enunciation or revision of the existing industrial policy of the country.

The rationale for the country's MSE policy was based on the recognition of the potential of MSEs to contribute substantially to the creation of a stable civil society and equitable distribution of wealth and opportunity (MOTI 2002). According to the draft policy:

- MSEs are labour-intensive and tend to lead to more equitable distribution of income than the larger enterprises;
- MSEs contribute to efficient allocation of resources in developing countries; and
- MSEs support the building of systemic productive capabilities.

The general underlying objective of the policy for the MSEs is to create a conducive environment for MSEs to develop so as to become vibrant, productive and competitive in the country. The specific objectives of the policy are to:

- Promote a dynamic enterprise culture for innovation;
- Promote employment growth within the informal sector;
- Focus MSE growth towards poverty reduction;
- Promote women's entrepreneurship;
- Develop MSEs to serve as a means to establish linkages between the formal and informal sectors of the economy;
- Promote the effective integration of MSEs with the agro-industry;
- Improve the technology base, product quality and productivity of the MSE sector;
- Mobilise new and appropriate sources of finance;
- Increase export sales, especially in non-traditional goods;
- Upgrade the application of indigenous technologies;
- Achieve balanced regional growth through spatial distribution of MSEs; and
- Encourage the application of environmentally friendly technologies (MOTI, 2002).

The policy hopes to transform the MSEs into a sector that can generate and contribute to:

- Creating new jobs at relatively low capital cost, improving linkages between diverse sectors of the economy, especially in linking rural producers to markets and company supply chains in urban areas;
- Stimulating entrepreneurial and managerial talents at the local level;
- Providing an equitable distribution of wealth and opportunities to disadvantaged groups; and
- Encouraging wealth creation and saving at a local level that can be re-invested in productive enterprises (MOTI, 2002).

*Amongst the objectives for SMEs is the need to improve their technology base, product quality and productivity.*

*The policy objectives also include the need to link rural producers to markets and supply chains in urban areas.*

## Kenya

*Tim Mwololo Waema*

The Sessional Paper No. 2 of 2005 defines the Small and Medium Enterprises (SMEs), which it refers to as Micro and Small Enterprises (MSEs) as all enterprises, both farming and non-farming, employing less than 50 persons. The annual economic surveys refer to the SME sector as the “informal” sector. In this paper therefore, SMEs, MSEs and Informal Sector mean one and the same thing and will be used interchangeably.

### Size of the SME Sector

The last SME baseline survey was carried out in Kenya in 1999. Table 12 shows the percentage distribution of SMEs of different employment sizes.

**TABLE 12. PERCENTAGE DISTRIBUTION OF SME SIZES<sup>a</sup>**

Size	Nairobi & Mombasa	Other major towns	Rural towns	Rural towns	Total
1	68.6	73.5	74.4	69.5	70.1
2	16.9	14.1	18.5	18.8	17.9
3-5	11.5	9.3	5.0	8.2	8.7
6-10	1.4	1.9	1.7	3.1	2.6
11-15	0.9	0.8	0.4	0.4	0.5
16-25	0.3	0.4	0.0	0.0	0.1
26-50	0.4	0.0	0.0	0.0	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

a. National SME Baseline Survey 1999 (CBS, K-Rep, ICEG)

*The last SME survey was conducted in 1999 and about 70% of SMEs in Kenya are one-person operations.*

Nationally, about 70% of the SMEs are one person units, whether in the major urban towns or in the rural areas. The size distribution of SMEs among the different strata is very similar, except for rural SMEs in the 6-10 size group which is a higher proportion than the other strata.

Although a new baseline study is long overdue, comparing results of earlier baseline surveys from 1993 and 1995 with the baseline study of 1999 shows that the sector had experienced growth.

*Comparing the SME baseline studies of 1993 and 1995 with 1999 indicates that the sector had experienced growth.*

Table 13 shows the one-digit International Standard of Industrial Classification (ISIC) grouping of SME units by location (rural and urban). In both urban and rural areas, trade constitutes the highest concentration of SMEs, followed by manufacturing and other services. Of interest is the fact that the majority of SME activities are in the rural areas, with manufacturing, construction and trade categories had disproportionately more SMEs in the rural areas than in urban areas. On



the other hand, metalworks and supplies, financial services and transport categories had disproportionately more SMEs in the urban areas than in rural areas. Metalworks and supplies SME activities are only found in the urban areas, largely because of the requirement of availability of commercial power.

*The latest figures available indicate that the SME sector contributed 18.4% to GDP.*

**TABLE 13. ONE-DIGIT ISIC GROUPING OF SME UNITS BY LOCATION<sup>a</sup>**

Category	No.	Urban	No.	Rural	Total
Manufacturing	44,455	26.9	120,840	73.1	165,295
Metal works, supply	1,158	100.0	0	0.0	1,158
Construction	6,551	29.7	15,537	70.3	22,087
Trade	298,345	33.7	586,937	66.3	885,282
Transport	13,257	65.8	6,905	34.2	20,162
Financial agents	11,976	69.8	5,179	30.2	17,155
Other services	49,649	43.7	63,873	56.3	113,522
<b>TOTAL</b>	<b>443,133</b>	<b>34.4</b>	<b>845,879</b>	<b>65.6</b>	<b>1,289,012</b>

a. National SME Baseline Survey 1999 (CBSK, 1999)

The distribution of persons engaged in SME sector activities by industry is given in Table 14 for 2000 to 2004. The wholesale and retail trade, hotels and restaurants industries accounted for the largest number of jobs, comprising about 58% of the total jobs. The manufacturing industry is second, accounting for an average of 22% of the total jobs in this sector. The two accounted for an average of about 80% of the jobs generated in the sector over the years.

**TABLE 14. DISTRIBUTION OF PERSONS ENGAGED IN SME SECTOR ACTIVITIES BY INDUSTRY ('000S)<sup>a</sup>**

Activity	2000	2001	2002	2003	2004 <sup>b</sup>
Manufacturing	943.2	1,039.4	1,119.5	1,196.4	1,276.3
Construction	134.5	140.8	150.0	158.5	168.1
Wholesale & Retail and Hotels & Restaurants	2,428.5	2,716.3	2,982.5	3,248.6	3,515.9
Transport and Communications <sup>c</sup>	121.8	136.8	150.6	164.6	180.6
Community, Social and Personal Services	373.1	422.1	467.3	513.2	558.5
Others	190.0	211.9	231.7	251.3	271.2
<b>TOTAL</b>	<b>4,191.1</b>	<b>4,667.3</b>	<b>5,101.6</b>	<b>5,532.7</b>	<b>5,970.6</b>

a. Source: Economic Survey 2005

b. Provisional

c. Includes mainly support services to transport activity

### Contribution of SMEs to GDP and Employment Creation

The contribution to both employment creation and to GDP is shown in Table 15 below for a number of years.

**TABLE 15. THE CONTRIBUTION TO EMPLOYMENT CREATION AND TO GDP<sup>a</sup>**

Year	No. of jobs created by SMEs annually	% of total persons engaged in employment	Contribution of SME sector to GDP
2000	412,100	70.4%	Not available
2001	473,500	72.8%	Not available
2002	434,300	74.2%	18.4%
2003	431,100	75.5%	Not available
2004	437,900	76.5%	Not available

a. Economic Survey 2002, 2003 & 2004

Table 15 shows that the SME sector has consistently contributed over 400,000 jobs annually and contributes over 70% of the total employment in Kenya (with the last two years being over 75%). Although most figures are not available, the SME sector has a significant contribution to GDP (18.4% in 2002).

*The objectives of the SME policy for Kenya include stimulating economic growth and strengthening linkages between firms.*

### SME Policies

According to the Sessional Paper No. 2 of 2005, the overall goal of the Kenya SME policy framework is to develop a vibrant SME sector capable of promoting the creation of durable, decent and productive employment opportunities, stimulating economic growth, reducing economic disparities, strengthening linkages between firms, diversifying the domestic production structure and industrial base, levelling the playing field between SMEs and the larger enterprises, improving the SME sector funding and enhancing institutional collaboration and coordination of interventions in the sector.

*Kenya has identified inappropriate policy design as a key challenge.*

The challenges and policy objectives of the SME sector in Kenya can be summarised from the Sessional Paper No. 2 of 2005 as shown in Table 16.

**TABLE 16. CHALLENGES AND POLICY OBJECTIVES OF THE SME SECTOR IN KENYA**

Challenges	Policy Objectives
<ul style="list-style-type: none"> <li>• Inappropriate policy design, weak implementation framework and failure to institute and effectively monitor policy implementation</li> <li>• Inhibitive legal and regulatory environment</li> </ul>	<ul style="list-style-type: none"> <li>• Create a legal framework that is dynamic and responsive to the needs of MSEs and supportive to the growth and development of the sector by review of existing pieces of legislation (local government, land, and labour laws) and enactment of new ones (the Micro and Small Enterprises Act)</li> <li>• Establish an MSE court to dispense justice and deal with small but non-trivial claims emanating from the sector</li> <li>• Consolidate and harmonise trade licensing and regulation services</li> <li>• Decentralise registration of businesses to provincial and district levels</li> </ul>
<ul style="list-style-type: none"> <li>• Limited access to markets and marketing information</li> </ul>	<ul style="list-style-type: none"> <li>• Allocate at least 25% of the Government's procurement requirements to the sector</li> <li>• Encourage sub-contracting arrangements between large and medium firms and MSE firms</li> <li>• Restrict the dumping of foreign goods</li> <li>• Spearhead the "Buy Kenyan Build Kenya" sensitisation campaigns to influence the change of mindset towards local products</li> <li>• Put in place measures to improve product design and development, commission market research, and support appropriate packaging of goods and services so as to respond to the needs of international customers</li> <li>• Facilitate the marketing of MSE products in both local and international markets</li> </ul>
<ul style="list-style-type: none"> <li>• Weak or non-existent linkages with large enterprises</li> </ul>	<ul style="list-style-type: none"> <li>• Provide incentives to the private sector to invest in areas that enhance development of business linkages between MSEs and large enterprises</li> <li>• Identify suitable zones with basic infrastructure, which will serve as business incubators, and improve the image of MSEs and their visibility</li> </ul>
<ul style="list-style-type: none"> <li>• Limited access to financial services</li> </ul>	<ul style="list-style-type: none"> <li>• Promote the development of the financial services sector by providing incentives to attract savings and investments, and development of venture capital</li> </ul>
<ul style="list-style-type: none"> <li>• Inadequate access to skills and technology</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance the ability of MSEs to adopt and adapt new technology, improve the capacity of institutions that support technology development, increase overall access to information on available technology and acquisition of technological skills</li> </ul>

**TABLE 16. CHALLENGES AND POLICY OBJECTIVES OF THE SME SECTOR IN KENYA**

<ul style="list-style-type: none"> <li>• Insecurity of land tenure</li> </ul>	<ul style="list-style-type: none"> <li>• In collaboration with local authorities, promote the issuance of Temporary Occupancy Licences (TOLs) for a longer and specified period of time followed by issuance of short-term leases. In the long-term, MSEs will be encouraged to adopt a Community Land Trust arrangement for the benefit of its members</li> </ul>
<ul style="list-style-type: none"> <li>• Poor access to physical infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage more private sector participation in the development and management of market stalls and work sites for MSEs</li> </ul>
<ul style="list-style-type: none"> <li>• Inadequate skills in business management and entrepreneurship</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage universities, polytechnics, technical institutions and other MSE support organizations to develop certified demand-driven courses on entrepreneurship and business management</li> <li>• Introduce entrepreneurial development programmes in schools and other training institutions</li> </ul>
<ul style="list-style-type: none"> <li>• Gender inequality</li> </ul>	<ul style="list-style-type: none"> <li>• Pursue gender-responsive policies that increase equal access to financial services for both men and women</li> <li>• Build institutional capacity of ministries, parastatals and government departments for gender integration and promote greater access to education, technological development and entrepreneurship</li> </ul>
<ul style="list-style-type: none"> <li>• Limited access to information</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage private sector investment in information/documentation centres for MSEs and support stakeholder initiatives targeting dissemination of information generated within the sector</li> <li>• Support periodic baseline surveys of the sector and enhance the role of sectoral organisations in the dissemination of information gathered</li> </ul>
<ul style="list-style-type: none"> <li>• A tax regime that is cumbersome</li> </ul>	<ul style="list-style-type: none"> <li>• Continue with tax reform to improve transparency and efficiency of taxation, strengthen tax collection and harmonise the tax system</li> </ul>
<ul style="list-style-type: none"> <li>• Formal and informal barriers that hinder entry into the SME sector</li> </ul>	<ul style="list-style-type: none"> <li>• In collaboration with the private sector and other stakeholders, promote good governance, ethical trading and rule of law</li> <li>• Strengthen the capacity of MSE associations to be able to play a self-regulatory role more effectively</li> </ul>
<ul style="list-style-type: none"> <li>• Unsatisfactory occupational health and safety standards</li> </ul>	<ul style="list-style-type: none"> <li>• Put in place measures to ensure that order, occupational safety, health, hygiene and environmental management principles are observed by all operators</li> </ul>
<ul style="list-style-type: none"> <li>• Impact of HIV/AIDS pandemic</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitate MSE operators to take advantage of all prevention, care and control programmes under the National AIDS Control Council strategic plan</li> </ul>

## Mozambique

*Francisco Mabila & José Mário Nhabinda*

Generally systemised information on SMEs in Mozambique is limited and in many cases available in different formats depending on the specific sectors. Some research initiatives have taken place but in an isolated form and most of the time donor-oriented, therefore making access to and dissemination of the research results very difficult.

The first census of enterprises (CEMPRE) was conducted by the Instituto Nacional de Estatística, INE (the National Statistics Bureau) in 2002 and covered three categories, namely small, medium and large enterprises. The census was very comprehensive and included a vast list of parameters, such as number of enterprises per category, number of employees, volume of business and type of company constitution (legal status). All those indicators are presented not only as a country summary but are also available for the provincial and district levels.

### SME Definition

The definition of SME in Mozambique varies from sector to sector. However, most of the existing definitions are based on the number of employees and the initial investment capital. The National Institute of Statistics uses a definition for a business census (called CEMPRE) which excludes the category of micro enterprises. Currently the Government is in the process of designing a strategy for the development of micro, small and medium enterprises. The draft strategy document in debate stresses the need for harmonisation of the existing SMEs definitions, aiming at possibly one single definition, and the involved ministries are requested to come up with proposals.

Tables 17, 18 and 19 show the different definitions of micro, small, medium and large enterprises in the industry, agriculture, construction and commerce and service industries:

**TABLE 17. DEFINITIONS OF MICRO, SMALL, MEDIUM AND LARGE ENTERPRISES<sup>a</sup>**

Sector	Micro	Small	Medium	Large
Industry	<25	25-124	125-249	>250
Agriculture	<25	25-124	125-249	>250
Construction	<10	11-124	125-199	>200
Commerce and Services	<5	6-15	16-49	>50

a. Source: "Estratégia para o Desenvolvimento de Micro, Pequenas e Médias Empresas em Moçambique, 2005" (Translated from Portuguese)

*There is little systematic information collection on SMEs in Mozambique. Most information is donor-oriented and thus limited.*

*Government is currently designing a strategy for SMEs that would provide a single definition of SMEs.*

**TABLE 18. DEFINITION OF MICRO, SMALL, MEDIUM AND LARGE ENTERPRISES ACCORDING TO THE MINISTRY OF INDUSTRY AND COMMERCE<sup>a</sup>**

Type	Initial Investment Capital (US\$)	Installed Power Capacity (KvA)	Number of Employees
Large	>10,000,000	> 1,000	>250
Medium	2,500,000-9,999,999	500-999	125-249
Small	25,000-2,499,999	10-499	25-124
Micro	<25,000	<10	<25

a. Source: Decreto No. 39/2003, B. R. no 48, 1a Série, de 26 de Novembro and “Estratégia para o Desenvolvimento de Micro, Pequenas e Médias Empresas em Moçambique, 2005” (Translated from Portuguese)

**TABLE 19. DEFINITION OF SMALL, MEDIUM AND LARGE ENTERPRISES ACCORDING TO INE, AS USED FOR CEMPRE<sup>a</sup>**

Sector	Small	Medium	Large
Number of Employees	<10	10-99	>100

a. Source: “Estratégia para o Desenvolvimento de Micro, Pequenas e Médias Empresas em Moçambique, 2005” (Translated from Portuguese)

*Micro businesses are classified as having less than US\$25,000 initial investment capital.*

### Size of the SME Sector

According to the CEMPRE the SME sector is the largest segment of the Mozambican economy in terms of number of enterprises and employment opportunities. The census has covered a total of 28,474 enterprises which together employ 240,996 people, against 60,149 employed by large enterprises.

### Contribution of SMEs to GDP and Employment Creation

SMEs represent the majority of workplaces and main source of economic activity in Mozambique. Therefore, their contribution to the development of the country is essential.

*In 2002, the enterprise census estimated that 99% of enterprises were SMEs.*

The census of enterprises shows that in 2002 nearly 99% of the enterprises in the country were SMEs, representing 56% of the total employment opportunities offered by all categories covered by the census. That means that SMEs although representing less business turnover than the group of large enterprises, are the main source of economic activity in Mozambique. Therefore, their contribution to the development of the country is essential. No information was found regarding the real impact of SMEs to the GDP. However, the census of enterprises indicates a total business volume of 27,601,800 million MZM for all SMEs together, against 38,842,454 million MZM for the large enterprises.

### SME Policies

There are different sector policies and strategies concerning the SMEs being implemented by different ministries and government bodies, namely in agriculture, industry, construction and commerce and services. Generally all those policies and strategies aim at the same goal, which is to create an enabling environment for the development of SMEs. In that context, the following instruments were created by the Government:

- The Investments Law and the Regulation for the Industrial Free Zones;
- The legislation with simplified procedures for licensing of industry and commerce;
- One-stop-shops in all provinces for simplified registration and licensing procedures;
- The SMEs development fund; and
- The bylaw for tax exemption for SMEs when importing raw material for all sectors of the transformation industry, except for the sectors of drinks and tobacco.

Additionally and as part of the Strategy for the Development of SMEs, the Government is intending to establish an institute that will coordinate all SME-related actions and initiatives, as well as provide institutional support and capacity building programmes to the sector. In the same context, the issue of facilitating access to credit for SMEs is regarded as one of the major challenges to be addressed.

## Namibia

*Christoph Stork & Mariama Deen-Swarray*

The role of SMEs in promoting economic growth is becoming clearer and the Namibian SME sector is no exception. SMEs in Namibia make up an important part of the country's economy, contributing about 12% to the GDP. The government's recognition of the important role that this sector can play in its socio-economic development is reflected in its NDP2 and Vision 2030 documents. The SME sector currently employs about 20% of the country's workforce. The sector's contribution to economic growth and employment is expected to increase further. However, the lack of a centralised database and of basic statistics on SMEs makes representative surveys extremely difficult. The precise role of SMEs in employment creation and poverty alleviation in the country thus remains unclear.

*There are several different programmes concerning SMEs that are being implemented by different ministries.*

*SMEs contribute 12% to GDP in Namibia and the importance of SMEs is reflected in its NDP2 and Vision 2030 documents.*

*Namibia has a definition for small businesses only and this is based on employment numbers, turnover and capital employed.*

### Definition of SMEs

Namibia has an official definition for small enterprises only. The small enterprise definition was compiled in 1997 by the Ministry of Trade & Industry (Republic of Namibia, 1997) and is based on employment numbers, turnover figures and the capital employed in the enterprise. The definition distinguishes between manufacturing and non-manufacturing businesses.

**TABLE 20. OFFICIAL SMALL BUSINESS DEFINITION AND INFLATIONARY EXTRAPOLATION<sup>a</sup>**

Years	Annual % change in CPI	Turnover - manufacturing sector N\$	Turnover - all other enterprises N\$	Capital employed manufacturing sector N\$	Capital employed - all other enterprises N\$
Initial		1,000,000	250,000	500,000	100,000
1997	8.8%	1,088,000	272,000	544,000	108,800
1998	6.2%	1,155,456	288,864	577,728	115,546
1999	8.6%	1,254,825	313,706	627,413	125,483
2000	9.3%	1,371,524	342,881	685,762	137,152
2001	9.2%	1,497,704	374,426	748,852	149,770
2002	11.4%	1,668,442	417,111	834,221	166,844
2003	7.3%	1,790,239	447,560	895,119	179,024
2004	6.10%	1,899,443	474,861	949,722	189,944

a. Source: Stork et al 2004a

*SME definitions based on monetary values need to be adjusted each year, making it an inadequate framework from which to design policies.*

A problem with SME definitions that include monetary values is that they need to be adjusted each year to take account of inflation. Stork et al (2004a) showed that this definition is not adequate to design incentive frameworks and monitor the economic impact of policies. They propose a new set of definitions for the micro, small, medium, large and extra large enterprises of the primary, secondary and tertiary sectors depending on characteristics of formality and employment numbers. An even better definition for SMEs could however, be derived for ISIC tabulations separately.

### Size of the SME Sector

Namibia's Ministry of Finance collects information on corporate taxpayers and businesses that pay individual income tax. Sole proprietors and partnerships are paying individual income tax while Close Corporations (CCs) and incorporated companies (PTYs) pay corporate tax. Sole proprietors and partnerships are business forms where the business and the owners are one entity. The owners of businesses that operate as sole proprietors and partnerships are liable in their personal capacity should something go wrong. For CCs and PTYs there exists no entity between business and owners, ie the business is only liable with its capital and not with the personal wealth of its owners.



The total number of sole proprietors and partnerships (farmers and businesses) stood at 19,714 in June 2005, according to the Ministry of Finance. 33,201 corporate taxpayers (CCs and PTYs) were registered with the ministry at that date. However these figures do not allow a conclusion to be made on how many of these businesses are micro, small, medium or large.

*The total number of small businesses is estimated at 34,403.*

An alternative approach for estimating the size of the small business sector is using the small business baseline surveys carried out by the Ministry of Trade and Industry in some of Namibia's regions between 1997 and 1999. (Republic of Namibia, 1998, 1999, 2000). The Ministry of Trade & Industry (MTI) commissioned a head count of SMEs in seven of the 13 administrative regions in Namibia between 1997 and 1999 (Republic of Namibia, 1998, 1999, 2000). The results from this partial census can be used to extrapolate the number of manufacturing and other businesses in the missing regions of Namibia. These extrapolations are summarised in Table 21.

*The Ministry of Trade and Industry commissioned a head count of SMEs in seven of the 13 administrative regions in Namibia.*

**TABLE 21. NUMBER OF SMALL BUSINESSES<sup>a</sup>**

Sector	Manufacturing	Other	Total
Erongo & Otjozondjupa	806	3,481	4,287
Ohangwena, Omusati, Oshana, Oshikoto	7,229	7,393	14,622
Khomas	408	4,951	5,359
Caprivi & Kavango <sup>b</sup>	2,618	2,677	5,295
Rest of Namibia <sup>c</sup>	910	3,929	4,839
Total	11,971	22,432	34,403

a. Source: Stork et al 2004b

b Figures are estimated based on the figures for Ohangwena, Omusati, Oshana, and Oshikoto. It is assumed that the Caprivi and Kavango region have a similar relationship between population and small businesses as the Ohangwena, Omusati, Oshana, and Oshikoto regions.

c. Figures are estimated based on the figures for Erongo and Otjozondjupa. The rest of Namibia is assumed to have a similar relationship between population and small businesses as the Erongo and Otjozondjupa regions.

### Contribution of SMEs to GDP and Employment Creation

The Namibian Economic Policy Research Unit (NEPRU) carried out SME impact assessments in 2002, 2003 and 2004 based on the official small business definition. This implies that only the impact of small businesses is being estimated, excluding medium sized businesses. The impact assessments were carried out by surveying a panel of small businesses over time. In order to derive reliable estimates for the GDP contribution, employment contribution and share in Gross Fixed Capital Formation (GFCF) of small businesses through surveys, one needs to be relatively sure about three things:

- That the sample used in the survey is representative for Namibia;
- That the number of small businesses in Namibia is known; and
- That the number of businesses per cluster or sector is known.

*Surveys conducted in Namibia are not reliable and need to be recalculated based on a full business census.*

In Namibia none of these three conditions has been fulfilled. All estimates made by Stork et al (2004a), Stork et al (2004b) and Arnold et al (2005) are temporary given these shortcomings and should be recalculated once a full business census has been carried out. Only a full census for all of Namibia will allow deriving accurate figures using surveys. Current estimates are based on surveys of a panel of companies. Establishing a panel of companies based on expert opinions, and monitoring this panel over time, is the best choice under the given circumstances to measure the impact of support policies on the SME sector and the impact of the SME sector on the Namibian economy. Even if the estimates derived under these circumstances are not entirely accurate, applying consistent methodological research from year to year allows for the accurate detection of changes nonetheless.

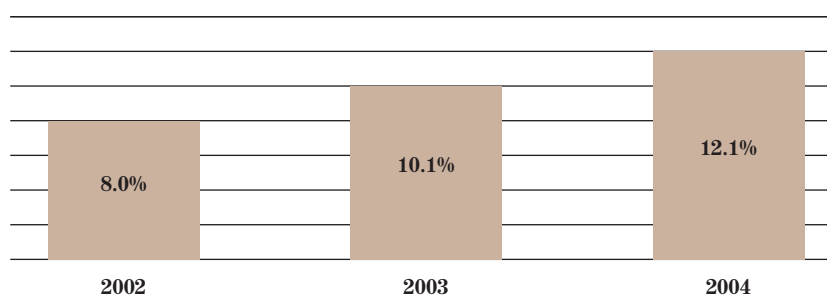
*Nevertheless, regular surveys using consistent methodologies would identify trends within the sector.*

Bearing these limitations in mind one can observe that the relative contribution of the small business sector to GDP has increased over the past years. Also the share of the Namibian labour force that is working full-time in the small business sector has increased between 2002 and 2004. The small businesses' share of Namibia's Gross Fixed Capital Formation (GFCF) has equally increased over time (Stork et al 2004b).

### **SME Policies**

The Namibian government launched its Policy and Programme on Small Business Development in 1997. This policy, driven by the Ministry of Trade and Industry was in recognition of the important role played by the SME sector in the country's socio-economic development.

#### **ESTIMATED CONTRIBUTION TO GDP IN %**



**FIGURE 1. Small business contribution to GDP contribution**  
(Source: Arnold et al 2004)

## ESTIMATED CONTRIBUTION TO GDP IN %

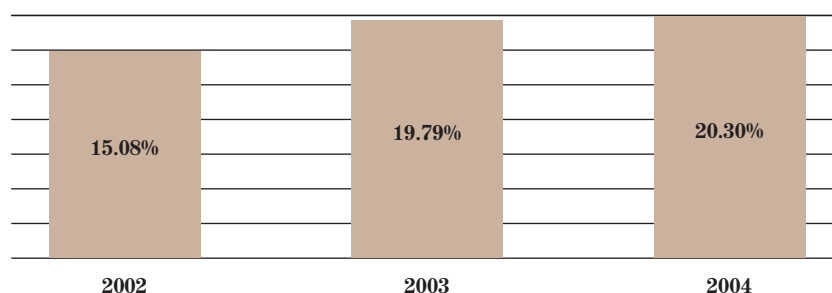


FIGURE 2. Small business share of labour force (Source: Arnold et al 2004)

This is emphasised in the policy which states “government’s firm commitment to transform the sector, as a priority, from its current state of deprivation and underdevelopment into a lead sector of the economy” (Republic of Namibia, 1997). The main aims in this policy were:

- To increase the rate of growth of SMEs thereby allowing them to provide more employment. The sector was expected to create 35,000 new jobs and increase incomes in the SME sector by 10%. The overall contribution of the SME sector to the country’s GDP was also expected to have increased by 15% by 2005;
- To reduce the rate of business failure and increase the rate of formation of new business;
- To allow for the diversification of the activities of the sector.

The policy framework set up to enhance the SME sector focused on the key areas of de-regulation in order to create a more conducive regulatory environment. The inclusion of pro-active programmes in the policy framework is geared towards overcoming major constraints faced by this sector and to help them exploit market opportunities. It also focused on institutional support, highlighting the MTI to serve as the lead ministry for the SME sector, while the Ministry of Finance, in cooperation with the NPC, will take the responsibility of the financial aspects and resources to promote this sector. The support provided by the policy framework strictly targeted those businesses that are likely to contribute most to the achievement of the economic goals of the government. The target group was thus the small, formally registered businesses and the micro and small businesses that are part of the informal sector but not registered with the Receiver of Revenue.

The aim of the government over the medium- to long-term period is to ensure that small businesses “take the lead role in economic development and spearhead the drive to create jobs and increase productive efficiency”.

*Even so, the relative contribution of SMEs to GDP has increased over the years.*

*The SME policy aims to create 35,000 new jobs and increase incomes in the SME sector by 10%.*

*The policy framework has been designed to create a more conducive regulatory environment.*

## Nigeria

*Ike Mowete*

This section of the report presents background information concerning the definition, size, and characteristic features of the SMEs in Nigeria, including estimates of their contribution to national GDP as well as official policies for the promotion of the activities of the sector. The section also gives a brief description of the ICT sector in terms of indices for access and utilisation and the regulatory environment.

*Prior to 1992 there were multiple definitions of SMEs in Nigeria. Subsequently, a common definition was adopted in 1992.*

*A micro and small enterprise is one which employs between one and 100 employees and has capital not exceeding N50 million.*

### SME Definition

Before 1992, different government agencies in the country adopted different definitions for SMEs, reflecting differences in the policy focus of the agencies (Olorunshola, 2003). In 1992, the National Council on Industries streamlined these different definitions so as to remove confusion and ambiguities, with a proviso that the 'official' definition is subject to review every four years. According to Udechukwu (2003) the 13th meeting of the National Council on Industry, held in July 2003, adopted the following definitions for micro-, small-, and medium-scale enterprises:

- A micro/cottage<sup>4</sup> industry is one whose labour size does not exceed 10 employees or whose total cost (including working capital but excluding land cost) is not more than N1,500,000;
- A small scale industry will have a labour force of between 11 and 100 employees or a total cost of N50 million, including working capital but excluding cost of land;
- Medium scale industries are those for which labour size exceeds 100 employees but is not more than 300 employees; or whose total cost (including working capital but excluding cost of land) lies between N50 million and N200 million.

Although different government agencies still utilise slightly different definitions as seen in Table 22, the definition adopted by the National Council on Industry appears to be broad enough to accommodate all the definitions.

*It is estimated that some 87% of all firms operating in Nigeria are SMEs.*

**TABLE 22. SME EMPLOYMENT-BASED CLASSIFICATION<sup>a</sup>**

Organisation	Micro	Small	Medium
International Finance Corporation	< 10	10 - 50	50 - 100
Central Bank of Nigeria	-	< 50	< 100
National Association of Small-Scale Industries	-	< 40	-
Accenture	-	< 50	<500

a. Source: <http://www.nigeriabusinessinfo.com/news/htm>

4. Cottage industry refers to home based industries.

### Size of the SME Sector

Available statistical data on the number, distribution, and activities of SMEs in Nigeria is incomplete and consequently unreliable (Chemonics, 2005). According to a World Bank report (cited in Chemonics), the best estimates made by the country's Corporate Affairs Commission indicate that SMEs account for some 87% of all firms operating in Nigeria, despite the fact that the exact number of registered firms in the country remains unknown. Using data on poverty statistics available from the Federal Office of Statistics, Chemonics (2005) conservatively estimates that 75% of the total number of poor households depends on farm and non-farm SMEs for their livelihood. Based on this estimate, the paper further estimates that the number of micro-enterprises is close to 80% of the total number of potential SMEs, whilst small businesses account for about 15% and medium enterprises, 5% of the total estimated figure of 420,000. The majority of the SMEs, particularly the larger ones, are located in the country's populous centres of Lagos, Port-Harcourt and Abuja, but very many micro and small enterprises operate throughout the country, located along secondary, tertiary, and quaternary roads, and in and around village market centres.

*Micro enterprises account for 80% of SMEs, small enterprises around 15% and medium enterprises around 5%.*

**TABLE 23. SME ASSET (EXCLUDING COST OF LAND)-BASED CLASSIFICATION<sup>a</sup>**

Organisation	Small	Medium
International Finance Corporation	< \$2.5 million	-
Central Bank of Nigeria	< N1 million	< N150 million
National Association of Small-Scale Industries	< N40 million	-
Federal Ministry of Industry	< N50 million	<N 200 million
National Economic Reconstruction Fund	< N10 million	-

a. Source: International Finance Corporation (IFC) publications (2001)

Figure 3 describes the distribution of registered business names in the country, and this distribution reflects the actual distribution of SMEs in Nigeria.

### Contribution of SMEs to GDP and Employment Creation

A 2000 article by Debbie Ariyo in the African Economic Analysis (Ariyo, 2005) reported that a study by the Federal Office of Statistics revealed that 97% of all businesses in Nigeria employ less than 100 people, which suggests that over 90% of the businesses fall into the class of SMEs. The article argues that on average, SMEs are responsible for well over 50% of employment in the country and contribute no less than 50% to Nigeria's industrial output. Table 24 is an extract from a paper delivered by Charles Soludo (Governor of the Central Bank of Nigeria) (Soludo, 2005), and it shows the sectoral contributions to the country's GDP over a period of six years.

*97% of all businesses in Nigeria employ less than 100 people.*

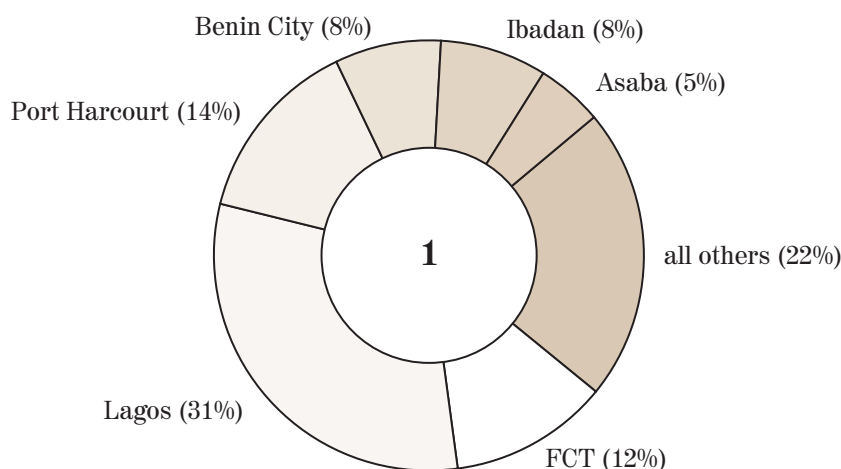


Figure 3: Registered Business Names (Source: CAC 2004)

*The communications sector contributes 1.4% to GDP.*

These figures support Ariyo's (2005) estimates, especially when it is noted that the SMEs dominate the agricultural, building and construction, transport, utilities, and wholesale and retail trade sectors.

**TABLE 24. PERCENTAGE SECTORAL CONTRIBUTIONS TO GDP<sup>a</sup>**

SECTORAL CONTRIBUTIONS TO GDP (%)	1999	2000	2001	2002	2003	2004	2005
<b>ACTIVITY SECTOR</b>							
<b>1. Agriculture</b>	<b>47.6</b>	<b>35.84</b>	<b>35.58</b>	<b>35.85</b>	<b>34.63</b>	<b>40.99</b>	<b>41.49</b>
a) Crop Production	37.99	29.89	29.66	29.86	28.98	36.48	36.95
b) Livestock	6.06	3.48	3.42	3.47	3.28	2.60	2.63
c) Forestry	1.40	0.78	0.76	0.74	0.68	0.54	0.54
d) Fishing	2.15	1.69	1.74	1.79	1.69	1.37	1.37
<b>2. Industry</b>	<b>19.77</b>	<b>36.98</b>	<b>37.30</b>	<b>34.67</b>	<b>38.16</b>	<b>29.48</b>	<b>27.72</b>
a) Crude Petroleum	12.47	32.45	32.65	29.75	33.44	25.72	23.82
b) Mining and Quarrying	0.37	0.29	0.31	0.31	0.30	0.28	0.27
c) Manufacturing	6.93	4.24	4.34	4.61	4.42	3.50	3.63
<b>3. Building and Construction</b>	<b>2.46</b>	<b>1.95</b>	<b>1.95</b>	<b>2.11</b>	<b>2.08</b>	<b>1.44</b>	<b>1.53</b>
<b>4. Wholesale and Retail Trade</b>	<b>13.62</b>	<b>13.11</b>	<b>12.85</b>	<b>13.22</b>	<b>12.68</b>	<b>12.90</b>	<b>13.74</b>
<b>5. Services</b>	<b>29.75</b>	<b>12.12</b>	<b>12.17</b>	<b>14.12</b>	<b>12.45</b>	<b>14.56</b>	<b>14.88</b>
a) Transport	3.64	2.28	2.28	2.59	2.38	2.38	2.41
b) Communications	0.37	0.11	0.13	0.19	0.21	1.14	1.40
c) Utilities	0.61	0.61	0.46	0.54	0.52	3.58	3.60
d) Hotel & Restaurants	0.57	0.21	0.21	0.21	0.20	0.37	3.98
e) Finance and Insurance	11.16	5.20	5.20	6.50	5.34	4.08	1.41
f) Real Estate & Business Services	0.35	1.90	1.91	1.90	1.78	1.34	0.95
g) Producers of Government Services	11.06	1.25	1.22	1.35	1.24	0.96	0.74
h) Commercial, Social and Personal Services	1.99	0.73	0.76	0.84	0.78	0.71	

a. Source: Soludo (2005)

The employment-generating capacity of the SMEs in the country is reflected in the fact that they have effectively served as stimulants for indigenous entrepreneurship, and according to Olorunshola (2003), have consistently created greater employment opportunities per unit capital investment than any other sector of the economy.

### SME Policies

Quite a number of monetary, fiscal, and industrial policy measures have, over the years, been employed by the Federal Government of Nigeria for the exploitation of established and potential benefits of SMEs. Some of the more prominent of these measures include (Olorunshola, 2003; Ariyo, 2005):

- Setting up and funding industrial zones as a means of reducing overhead costs. These Industrial Development Centres were also established with the objectives of providing SMEs with services as technical appraisals for loans applications, entrepreneurship training, management of product development, and production planning and control;
- Providing local finance through government agencies including the Central Bank of Nigeria (CBN), the Federal Ministry of Industries, and the Nigerian Industrial Development Bank, which was established in 1964 to provide credit and other facilities to industrial enterprises in the medium- and large-scale category. For example, in 1971, the Small Industries Development Program was set up with the objective of providing technical and financial support to the SMEs. It was this venture that led to the establishment of the Small Industries Credit Commission, and the associated Small Industries Credit Fund. Decree number 2 of 1986 established the National Economic Reconstruction Fund, with the main objective of providing soft, medium- to long-term loans to wholly Nigerian-owned SMEs in manufacturing and agro-allied enterprises, mining, quarrying, industrial support services, equipment leasing and other ancillary services. Under the provisions of the decree, SMEs with 'fixed assets plus cost of new investment' (excluding real estate) not exceeding N36 million (and who source not less than 60% of raw material inputs locally, in the case of manufacturing) are eligible for loans with interest rates significantly lower than going market rates, which are required to remain fixed for the duration of the loan. Participating banks are allowed rates limited to no more than 1% above NERFUND's cost of borrowing, and they are allowed a spread of not more than 4% of the cost of funds;
- Facilitating and guaranteeing external finance through the World Bank, African Development Bank and other similar institutions with interest in, and capability of assisting the SMEs.

*SMEs have consistently created greater employment opportunities per unit of capital invested than any other sector.*

*The National Economic Construction Fund provides loans to SMEs at interest rates lower than current market rates*

Another notable SME policy came about from an initiative of the CBN, which attracted the support of the Bankers Committee. That initiative led to the creation of the Small and Medium Industries Equity Investment Scheme (SMIEIS). According to Anyanwu (2003) the CBN, realising that the SMEs held the key to the revival of the then moribund manufacturing sector, successfully persuaded the Bankers Committee in 2000 to agree that each bank sets aside 10% of its annual pre-tax profit for equity investment in small and medium scale enterprises. The objectives of the Scheme include (Anyawu, 2003; Udechwu, 2003):

*Each bank was persuaded to set aside 10% of its pre-tax profit for equity investment in SMEs.*

- Facilitating the flow of funds to be utilized for the establishment of new small- and medium-scale firms, and the reactivation, expansion/restructuring of on-going projects;
- Stimulating economic growth through the invigoration of the SMEs;
- Developing local technology;
- Exploiting the ability of SMEs to generate employment;
- Managing and stimulating corporate governance of SMEs.

*The SME Equity Investment Scheme hopes that SMEs will eventually form part of the formal sector.*

It is expected that through this scheme, the SMEs will among other things:

- Access long-term funding and associated critical resources;
- Adopt a disciplined approach to business management;
- Institute improved relationships with banks through ready access;
- Eventually evolve to become part of the formal sector.

## Rwanda

*Albert Nsengiyumva*

*CAPMER was established in 2000 to support SMEs and provide expertise on marketing, technology and exports.*

The after-effects of the genocide in Rwanda in 1994 continue to be felt today. One of the consequences of the genocide was the disintegration of institutional infrastructure that was integral to the country's socio-economic recovery. With so few functioning institutions, SMEs were put on the backburner in favour of other projects such as schools and hospitals<sup>5</sup>.

“The country needed a new industrial policy framework to create an environment conducive to business development. The ministries responsible for industrial reconstruction and rehabilitation lacked the capacity and capabilities to respond to the industrial sector’s needs. Key organisations such as the Chamber of Commerce and Industry, the Investment Promotion Agency, the Association of Industrialists, and private sector business associations all needed restructuring. Entrepreneurs did not have the means to resume and rebuild their businesses, improve managerial and technical skills, and obtain information on technology, marketing and finance”.<sup>6</sup> Within the

5. [www.unido.org/file-storage/download?file\\_id=24371](http://www.unido.org/file-storage/download?file_id=24371)



framework of the United Nations Industrial Development Organisation (UNIDO) integrated program for Rwanda, the Centre for the Support to Small and Medium-Sized Enterprises in Rwanda (CAPMER) was established in 2000 to support SMEs. “CAPMER provides expertise on project analysis, marketing and exporting, technology development and business training. It also provides information and advisory services to SMEs and organises information-sharing and skill-development programs”.<sup>7</sup>

Based on the CAPMER annual report, more than 400 SMEs have received assistance from CAPMER with business advice and information on equipment selection and purchase, marketing, finance, project analysis and business plan preparation. CAPMER started its activities in October 2000 as a project. On 8 November 2002, it became a permanent structure in charge of support to non-profit SMEs. CAPMER founder members are the following:

- Government of Rwanda: represented by MINICOM and KIST;
- Private Sector: represented by the Rwanda Federation for the Private Sector;
- NGOs and International Organisations: SNV and UNIDO;
- The CAPMER Constituent Assembly, which took place on 8 November 2002 and also established a Bureau and a Board of Directors, consisting of 9 members.

CAPMER is universally recognised as a key contributor to the national strategic plan, “VISION 2020”, as regards the support to the establishment and development of dynamic and profitable small- and medium-sized enterprises. It is within this framework that the CAPMER Five-Year (2003-2007) Strategic Plan has been developed. The four strategic orientations agreed upon are as follows:

- Facilitating access to information on technologies and markets, financing opportunities as well as entrepreneurship incentives in the area of SMEs;
- Technical and management capacity building in favour of SMEs;
- Facilitating SMEs’ access to various funding sources;
- Reinforcing organisation within and among SMEs with a particular emphasis on the assistance to enterprises and on partnership development among SMEs involved in the same sector.

CAPMER’s target customers consist of existing SMEs, potential entrepreneurs, including women and young entrepreneurs as well as small-scale enterprises from the informal sector. Priority areas of intervention are industry, tourism and information and communication technology.

6. [www.unido.org/file-storage/download?file\\_id=24371](http://www.unido.org/file-storage/download?file_id=24371)

7. [www.unido.org/file-storage/download?file\\_id=24371](http://www.unido.org/file-storage/download?file_id=24371)

*Initially started as a project in 2000, CAPMER became a permanent structure in 2002.*

*CAPMERs target customers include existing SMEs, potential entrepreneurs, women and the informal sector*

The carrying out of all the activities planned under this strategic plan will depend on the availability of necessary financial resources. The required budget for the five-year period is about 2.25 billion Rwandan Francs; that is approximately 4.4 million US\$.

The following statistics are part of the findings of a survey done in 2002 by On the Frontiers, an international research firm that is currently supporting development and competitiveness of key sectors of the Rwandan economy such as coffee and tea export, tourism and ICT:

- In Rwanda, there are currently 3,000 SMEs registered with the tax department, including 2,000 SMEs operating within the boundaries of the Kigali City Council;
- In the informal sector, small-scale enterprises are estimated at 1,100,000, including more than 950,000 in rural areas and about 140,000 within the boundaries of the Kigali City Council.

*33% of SMEs recognise that funding is the main challenge and 33% believe that insufficient human capital is a key challenge.*

According to a survey conducted by On the Frontier (2002), the SME sector shows the following characteristics:

- Most SMEs consist of less than 50 staff members;
- Most SMEs have a relatively low turnover;
- 66% are grappling with difficulties; therefore, survival is the main challenge for SMEs in Rwanda;
- Technical training and assistance are the most needed services;
- Entrepreneurs need business consultation services and would be receptive to accompanying services;
- More than 90% of SMEs are ready to support on a partial basis the invoices for services provided;
- Most SMEs are in favour of uninterrupted access to Business Development Services, in particular outside of normal working hours;
- 33% of SMEs recognise that access to funding is the main challenge to be taken up;
- 33% of SMEs think that insufficiency of trained and qualified human resources constitute a major challenge to their development;
- 95% are of the view that banks should play a more important role in the promotion of their business;
- Most SMEs would like to join the Rwanda Federation for the Private Sector;
- Most SMEs would like to have decentralised business development services.

*95% of SMEs believe that banks should play a more important role in the promotion of their business.*

The survey also revealed that stakeholders in the provision of services pertaining to the assistance to SMEs consist of a limited number of NGOs and short-term projects, notably ADAR, USAID, ACDI-VOCA, SNV, GTZ, FRSP, APEFE, etc. There are also public institutions that provide facilities to SME promoters, such as Rwanda Investment Promotion Agency (RIPA) and Rwanda Bureau of Standards (RBO).

Finally, a limited number of consultants provides business development services. However, the quality thereof is not always optimal.

### **SME Definition**

It is very difficult to get a common definition of SMEs in Rwanda. We have tried to search within the varied institutions dealing with SMEs or business in general to find out the definitions of SMEs or attempts to harmonise SMEs definition in Rwanda. The following definitions of SMEs have been found in two different institutions:

*SME are enterprises that employ between 10 and 100 people and have a turnover of between 100 million and 1 billion Rwandan Francs.*

### **CAPMER DEFINITION (2003)**

An SME is generally defined as an enterprise that fulfils the following conditions:

- Employs 10 to 100 people;
- Annual turnover: between 100 million and one billion Rwandan Francs (Rwf);
- Capital assets: at least 50 million Rwf.

However, CAPMER has undertaken to advise as many small-scale enterprises as possible in order for them to develop into SME-size enterprises.

### **RWANDA REVENUE AUTHORITY, DEPARTMENT OF SMALL AND MEDIUM TAXPAYERS**

The department of Small and Medium Taxpayers takes only into account the annual turnover, therefore defines as SME any enterprise that has an annual turnover smaller than or equal to 20 million Rwf.

## South Africa

*Steve Esselaar*

*South Africa has followed a neo-liberal approach favouring inflation targeting, fiscal discipline and stability.*

Since 1994, there has been a realisation that the South African economy was heavily distorted by apartheid. Interventions at a macro- and microeconomic level were clearly needed to overcome these distortions. At a macroeconomic level, South Africa has followed a neo-liberal approach favouring inflation targeting, fiscal discipline and stability. The policy has been relatively successful, delivering solid economic growth since 1999. The key beneficiaries of this policy have been medium and large business, particularly those that are skill- and capital-intensive. At a micro-economic level, growth of new formal SMMEs has been strong. However, because of apartheid, South Africa has a split economy. One part of the economy is globally integrated and competitive and consists of large corporations and formal SMMEs. The second economy is characterised by survivalist, micro and small enterprises.

*South Africa is a classic two economy society where the majority are part of the second economy.*

“South Africa is thus becoming a classic “two economies” society in which a globalised minority fruitfully interacts with its counterparts in other countries, exchanging goods and services, participating in supply chains of various types, earning steadily rising real incomes, whilst the majority continues as before: unemployed and economically ‘useless’ to the first economy” (Baumann, 2004:8).

The South African component of this report fits in an uncomfortable space between these first and second economies. The implicit assumption is that there is no point in surveying only the formal component of the SME sector, particularly if there is a suspicion (borne out by studies) that the informal (or second economy) is getting larger. For this reason the sample was chosen to represent this uncomfortable middle space between so-called formal and informal and doesn't attempt to provide any insight into established medium sized businesses. A recent study on SMEs has highlighted the impressive adoption of broadband amongst SMEs. Because the focus of this study is at the other end of the scale, this study does not find that broadband adoption is being driven by SMMEs, because broadband is far too expensive to be a consideration for a majority of the sample<sup>8</sup>.

*Existing policy has not addressed the key concern of the migration of SMEs from the second economy to the first economy.*

The context of this report is within the increasing debate that existing policy in South Africa has not addressed the key concern of increasing employment, and specifically has not encouraged the migration of SMEs from the second economy into the first economy. In 2005, the Development Bank of South Africa produced a report focusing on overcoming underdevelopment in the second economy (DBSA 2005). The report argues that economic policy (as defined by GEAR, and more recently, support for the notion of South Africa being a developmental

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8. See SME Survey 2006 for more information on SMME broadband adoption.

state) has assumed a 'trickle-down' effect from macro-level stability and growth to micro-level employment creation. This assumption is premised on the misperception that the first and second economies are closely linked and that growth in the first economy is a necessary and sufficient condition for growth in the second economy.

What is missing from the analysis presented so far is the role of ICTs in the South African economy. It is common cause that the transformative effect of ICTs has been overstated. The more moderated view of ICTs is that they are enablers in the process of economic growth. What is clear is that ICTs are a key component in any successful economic strategy.

This report argues that ICTs have the ability to intermediate between the first and the second economies through two avenues. Firstly, by reducing the costs of doing business, for example, maintaining contact with customers and suppliers, and through cheaper applications such as mobile banking. Secondly, by providing greater information on a segment of the economy about which little is known. As a report produced by TIPS (2002) argues, "despite voluminous research, however, there is still little clarity about the extent to which South Africa's SMMEs contribute to poverty alleviation, economic growth, or international competitiveness" (TIPS, 2002:1 The Economics of SMEs in South Africa.).

What this report finds is that there is one ICT that is both perceived to be the most useful tool and is also the most widespread amongst SMEs: the mobile phone. While ICTs such as broadband will continue to be vital for SMEs in the formal economy, broadband access is unlikely to play a role of a segment in the economy where "households inhabiting the second economy are there ... permanently (at least for their lifetimes, which, as Keynes observed, is what really matters)" (Baumann, 2004:8). Apart from mobile banking innovative business applications for the mobile phone are missing in the South African environment.

### SME Definition

The definition of SMEs in South Africa is determined by the National Small Business Act of 1996. The Act defines a small business as "a separate and distinct business entity, including cooperative 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 sub-sector of the economy" according to the following schedule in Table 25:

*ICTs have the ability to intermediate between the first and second economies.*

*The definition of SMEs in South Africa is based on the National Small Business Act of 1996*

TABLE 25. SME DEFINITION

Sectors	Category	Full-time equiv. of paid employees – Less than	Annual turnover – Less than	Gross asset value – Less than
Agriculture	Medium	100	R5 m	R5 m
	Small	50	R3 m	R3 m
	Very Small	10	R0.5 m	R0.5 m
	Micro	5	R0.2 m	R0.1 m
Mining & Quarrying	Medium	200	R90 m	R23 m
	Small	50	R10 m	R6 m
	Very Small	20	R0.4 m	R2 m
	Micro	5	R0.2 m	R0.1 m
Manufacturing	Medium	200	R51m	R19 m
	Small	50	R13 m	R5 m
	Very Small	20	R5 m	R1.9 m
	Micro	5	R0.2 m	R0.1 m
Electricity, Gas & Water	Medium	200	R51m	R19 m
	Small	50	R13 m	R5 m
	Very Small	20	R5 m	R1.9 m
	Micro	5	R0.2 m	R0.1 m
Construction	Medium	200	R26 m	R5 m
	Small	50	R6 m	R1 m
	Very Small	20	R3 m	R0.5 m
	Micro	5	R0.2 m	R0.1 m
Retail & Motor Trade & Repair Services	Medium	200	R39 m	R6 m
	Small	50	R19 m	R3 m
	Very Small	20	R4 m	R0.6 m
	Micro	5	R0.2 m	R0.1 m
Wholesale Trade, Commercial Agents and Allied Services	Medium	200	R64 m	R10 m
	Small	50	R32 m	R5 m
	Very Small	20	R6 m	R0.6 m
	Micro	5	R0.2 m	R0.1 m
Catering, Accommodation and other Trade	Medium	200	R13 m	R3 m
	Small	50	R6 m	R1 m
	Very Small	20	R5.1 m	R0.9 m
	Micro	5	R0.2 m	R0.1 m
Transport, Storage & Communications	Medium	200	R20 m	R6 m
	Small	50	R10 m	R3 m
	Very Small	20	R2 m	R0.6 m
	Micro	5	R0.15 m	R0.1 m
Finance & Business Services	Medium	200	R26 m	R5 m
	Small	50	R13 m	R3 m
	Very Small	20	R3.m	R0.5 m
	Micro	5	R0.2 m	R0.1 m
Community, Social & Personal Services	Medium	200	R13 m	R6 m
	Small	50	R6 m	R3 m
	Very Small	20	R1m	R0.6 m
	Micro	5	R0.15 m	R0.1 m

### Contribution of SMEs to GDP and Employment Creation

Estimates of the impact of SMEs on the South African economy are dependent upon definitions of SMEs used. Some studies have separately looked at the formal or informal sectors. Data on the impact of SMEs is unreliable primarily because there is no central public database of SMEs available. Databases that do exist are proprietary and consequently expensive and do not cover all SMEs in the country. Nevertheless, several attempts have been made to estimate the contribution of SMEs to the GDP and to employment creation.

*The National Treasury has estimated that between 52% and 57% of GDP is contributed by SMEs.*

The National Treasury has estimated that between 52 to 57% of GDP is contributed by SMEs, and defines SMEs as all non-large organisations (according to the definitions of the National Small Business Act). The Treasury also estimates that around 62% of employment is provided by SMEs<sup>9</sup>.

An estimate of the contribution of the informal SME sector to GDP has been made by Abedian (quoted in TIPS 2002) who arrives at a figure of between 12 and 14.5%. The TIPS report argues that there are several modifications that could be made to come to a more accurate figure, but has not attempted to estimate the informal sector's impact itself.

The number of SMEs in South Africa has been estimated at between 1.8 and 2.6 million. Of the formal SMEs operating, around 46% are operating in Gauteng and 18% in the Western Cape, representing 64% of all SMEs operating in the country (GOVS, 2005).

### SME Policies

The SME sector has been seen as a key contributor towards economic growth by the two key economic policies of government: GEAR (Growth, Employment and Redistribution) and ASGISA (Accelerated and Shared Growth – South Africa).

*The SME sector is seen as a key contributor towards economic growth in ASGISA.*

“The promotion of small, medium and micro enterprises (SMMEs) is a key element in the Government's strategy for employment creation and income generation” (GEAR, 1996).

Similarly, ASGISA emphasises the importance of SMEs to the economy. In a recent media briefing, Deputy President Phumzile Mlambo-Ngcuka argued that the perceived deficiency in SME funding was being remedied through the roll-out of several financial support programmes.

*As a result of the National Small Business Act two agencies were created to support SMEs: Ntsika and Khula.*

The role of SMEs in the South African economy was highlighted in the White Paper on Small Business in 1995 and the corresponding National Small Business Development Act of 1996.

9. These estimates are based upon a report by the Task Group of the Policy Board for Financial Services and Regulation for the National Treasury titled “SMEs Access to Finance in South Africa” (2001). The estimates mentioned in this report are based on 1997 data, which the Task Group claims is the only data available.

As a result, two agencies were created, under the auspices of the Department of Trade and Industry (DTI), to support SMEs:

- The Ntsika Enterprise Promotion Agency;
- Khula Enterprise Finance.

The role of Ntsika was to implement the national SME strategy through a series of service centres throughout the country, while Khula was to provide financing to SMEs. This programme failed and in 2004 Ntsika was combined with the Community Public Private Partnership Programme and the National Manufacturing Advice Centre to form Small Enterprise Development Agency (SEDA) with a budget of R120 million. The objectives of SEDA<sup>10</sup> are:

- To strengthen support for SMMEs' access to finance;
- To create an enabling regulatory environment;
- To expand market opportunities for specific categories of small enterprises;
- To localise small business support through a grid of SEDA-coordinated information and advice access points;
- To initiate a national entrepreneurship drive and expand education and training for small business;
- To co-fund minimum business infrastructure facilities in local authority areas across the country.

*The South African Micro-finance Apex Fund was established to address the needs of the second economy.*

SEDA is aiming at achieving these objectives by creating a network of agencies around the country that provide a contact point with local small business.

Acknowledging the failure of government agencies to address the needs of the 'second' economy (particularly in terms of the perceived need for credit amongst this sector of the economy), the South African Microfinance Apex Fund was established by the DTI in 2004. "Certainly, it is evident that our current industrial policies are not having the desired impact in particular areas – employment creation and SMME development most notably. Indeed, some critics regard policy as significantly contributing to poor performance. In particular, trade liberalisation is seen as the source of employment loss. However, the empirical evidence is that employment creation through enhanced export growth has more than compensated for declines in employment due to increased imports – albeit, and this is of significance, employment growth has been very largely located in skill intensive occupations" (DTI, 2006:21). The aim of the Apex Fund is to provide:

- Access to affordable financial services;
- Institutional and client capacity building;
- Savings mobilisation through co-operatives and other formations such as burial societies and stokvels.

10. [www.seda.org.za](http://www.seda.org.za)



The Apex Fund represents a change in policy because it has a dual function: firstly, to provide micro-credit to SMEs and secondly, to provide poverty alleviation for households with an income under R1,500 per month.

With regard to the role of ICTs in SMEs, the relevant ministry is the Department of Communications (DOC). According to the DOCs Strategic Plan 2006 – 2009:

“With a view of broadening participation in the economy, the DOC objectives are to accelerate the usage of ICTs as a tool in all spheres of government delivery for socio-economic development, facilitate the growth and development of SMMEs in the ICT and other sectors and improve their sustainability through the development of new applications for e-services in the ICT sector (DOC 2006:8).”

*The Apex Fund has a dual function: poverty alleviation and micro-credit.*

The DOC’s budget is structured into six programmes. The fourth programme is Finance, State Owned Enterprises and SMMEs and the most relevant objective is to “ensure, through the use of ICTs, the development of the SMMEs sector” (DOC, 2006, p.13). Clearly a prerequisite for the use of ICTs is reduction of the cost of ICTs. The next section, which evaluates ICT policy against implementation, explains why this policy aim has not been achieved.

## Tanzania

*Innocent Ngalinda & Beda Mutagahwa*

The Tanzania Development Vision foresees that by the year 2025, “Tanzania should have created a strong, diversified, resilient and competitive economy, which can effectively cope with the challenges of development, and which can also easily and confidently adapt to the changing market and technological conditions in the regional and global economy”.<sup>11</sup> The challenge is therefore to mobilise human and other resources towards that goal.

*The Tanzania Development Vision of 2025 foresees the creation of a competitive economy in Tanzania.*

The Small and Medium Enterprise Policy of 2002 explains the importance of SMEs to the Tanzanian economy, while at the same time highlighting the lack of support that SMEs have received in the past. Key factors inhibiting the growth of the SME sector are a culture which does not value entrepreneurship, complex regulatory and legal hurdles, and an administrative environment that favours large enterprises over SMEs (Tanzania, 2002). An uncompetitive environment in the banking sector has made access to financial products difficult for SMEs and existing regulation prevents SMEs from using mortgage bonds as a form of collateral (Tanzania, 2002), one of the prime mechanisms SMEs use to finance their business.

*An uncompetitive banking environment has made access to financial products difficult for SMEs.*

Given the adverse environment that SMEs in Tanzania face, the Small and Medium Enterprise Policy was introduced to oversee the implementation of several programmes to overcome these challenges, such as the Rural Development Strategy, Agricultural Sector Development Strategy, Strategic Trade Policy, BEST Programme, Micro-finance Policy and Poverty Alleviation Strategies (GOVT, 2002).

*SMEs are defined as those engaging up to four people and employing capital of up to Tshs 5 million.*

**SME Definition**

According to the Small and Medium Enterprise Policy, SMEs are defined as “those engaging up to 4 people, in most cases family members, or employing capital amounting up to Tshs.5.0 million. The majority of micro enterprises fall under the informal category. Small enterprises are mostly formalised undertakings engaging between 5 and 49 employees or with capital investment from Tshs 5 million to Tshs.200 million. Medium enterprises employ between 50 and 99 people or use capital investment from Tshs 200 million to Tshs 800 million” (GOVT, 2002:10).

**TABLE 26. CATEGORIES OF SMES IN TANZANIA <sup>a</sup>**

Category	Employees	Capital Investment in Machinery (TShs.)
Micro enterprise	1 - 4	Up to 5 million
Small enterprise	5 - 49	5 to 200 million
Medium enterprise	50 - 99	200 to 800 million
Large enterprise	100+	Above 800 million

a. Source: The 2002 Tanzania Small and Medium Enterprise Development Policy

**Size of the SME Sector**

Estimating the size of Tanzanian’s SME sector is difficult because so few surveys of the SME environment have been completed. Nevertheless, the Informal Sector Survey of 1991 estimates that there are around 1.7 million businesses which employ over 3 million Tanzanians (GOVT, 2002).

*The SME sector contributes about a third of GDP, which is low compared to some South-East Asian countries.*

**Contribution of SMEs to GDP and Employment Creation**

Tanzania shares a common problem with its neighbours – large numbers of new entrants into the labour market and few job opportunities. For example, it is estimated that of about 700,000 new entrants per year, 40,000 are employed in the public sector, leaving the private sector to absorb the remaining school leavers (Tanzania, 2002). Currently, the SME sector generates around a third of GDP, which is lower than other countries, particularly in South-East Asia, where the SME sector can contribute up to 60% of GDP. There is significant room for growth in this sector.

11.[www.tanzania.go.tz/vision.htm](http://www.tanzania.go.tz/vision.htm)

### The Tanzania SME Development Policy

With this in mind, the major goal of the 2002 Tanzania Small and Medium Enterprise Development Policy is to encourage SME growth, to provide the mechanisms for SME support and to facilitate an institutional environment that is conducive to SME growth (GOVT, 2002). The policy covers the following key areas:

- Reviewing and reconsidering public policies and regulations that discriminate against or hinder the start-up, survival, formalisation and growth of SMEs;
- Enhancing the growth of the sector;
- Identifying and assigning clear roles of key actors;
- Developing strategies that will facilitate provision of financial and non-financial services to SMEs;
- Developing and institutionalising public-private partnerships for SME sector development.

## Uganda

*F.F. Tusubira and Ali Ndiwalana*

Two key reports about the SME sector in Uganda, the Uganda Business Inquiry (GOVU 2002) and the Uganda Business Register 2001/2002 (GOVU 2003) have been produced by the Uganda Bureau of Statistics.

The Uganda Business Inquiry (UBI) is a national survey of a series of economic surveys carried out since the 1960s. Covering 147,160 businesses, it is the tenth survey in the series that is meant to generate a variety of economic indicators and determine the contribution of various sectors to the economy using 2000/2001 as the reference period. The survey series does not provide an accurate picture of trends over the years because of changes in research coverage. Some of the sectors covered by this particular survey include agriculture, manufacturing, utilities (electricity and water supply), construction, trade, hotels and restaurants, transport, post and telecommunications, and finance and services. For each of these sectors, the survey provides:

- Some economic indicators, usually Gross Output and Value Added;
- A description of some components of Value Added;
- The cost of staff;
- Operating costs;
- Fixed assets;
- Form of ownership.

*The Uganda Business Inquiry is a national survey that surveyed 147,160 enterprises.*

*The survey does not provide accurate trends because of changes in survey methodology.*

Gross Output was calculated as the value of total receipts adjusted for stock changes minus excise duty and indirect taxes, while Value Added was calculated as the difference between Gross Output and the total of intermediate inputs used in production, ie employee compensation (cost of staff), depreciation, interest, as well as net profit or loss.

The survey reported a Gross Output (GO) of 4,796 billion shillings and a Value Added (VA) of 2,360 billion shillings, an overall ratio of VA:GO of 49.2% during the reference period 2000/2001. Manufacturing was the largest contributor with a gross output of 36% (1,725 billion shillings), followed by Trade with a gross output of 24%. In terms of value added, their positions were reversed with the Trade sector accounting for 31%, followed by Manufacturing with 26%.

*The Uganda Business Register contains basic information on each business, such as name, economic activity and location.*

The Uganda Business Register (UBR) (GOVU, 2003) on the other hand, is based on data of registered businesses in 2001 and 2002. It contains information about each business, which at its most basic includes name, economic activity, location and employment information. While it provides a basis for selecting a sample that would be representative of the country, we did not use it primarily because it is a number of years old and SMEs tend to have a much shorter life span. This is confirmed by the fact that having assembled data from various organisations to form a basis for the register, a pilot in Entebbe municipality determined that the resulting register would only represent 7% of still existing businesses, indicating the need to collect fresh data from scratch. It should be noted that, the challenge of identifying a representative sample for the Uganda Business Inquiry (GOVU, 2002) above, greatly motivated a start on the business register. For each business, information collected included:

- Name;
- Activity;
- ISIC activity code;
- Location;
- The Global Positioning System coordinates;
- Telephone and postal contacts;
- Employment numbers by gender;
- Type of ownership;
- Ownership by gender (where applicable).

*Having a fixed location was a pre-requisite to be included in the Uganda Business Register.*

While information was drawn from both formal and informal sectors, having a fixed premise was a prerequisite to being included in the register. In addition, the definition of formality was fluid, varying from industry to industry. Generally, businesses that employed five people or more were considered formal.

### SME Definition

SMEs are defined in terms of a number of characteristics that vary from one country to another and are sometimes sector specific. These characteristics may include the number of employees, the amount of capital investment, turnover, shareholding, market share, etc.

In Uganda, the Micro and Small-Scale Enterprise Policy Unit (MSEPU), a unit within the Ministry of Finance, Planning and Economic Development (MFPED) set up to coordinate activities related to SME development in Uganda, has come up with the definition of micro and small enterprises as having:

- Fewer than five employees, including family members;
- Working capital of less than Ush 2.5 million;
- Turnover value of less than Ush 10 million.

And small-size enterprises as having:

- Up to a maximum of 50 employees;
- Working capital of less than Ush 50 million;
- Turnover value of Ush 10–50 million throughout each year of operation.

The definition for medium-size enterprises has not yet been derived, and there is still need to reach consensus on the definition of both micro and small-size enterprises within the private sector.

### Size of the SME Sector

In the UBR (GOVU, 2003), over 160,000 businesses were registered, 87% of which were informal (ie employing less than 5 persons) and 13% formal. The Central region accounted for the lion's share with 63%, followed by the Eastern with 19%, Western with 15% and finally Northern with 6%. They all employed 444,000 people in total, 39% of whom were female. In terms of employment, businesses in the Central region accounted for 63%, followed by Western with 17%, Eastern with 15% and Northern with 5%. More women are employed in the central region, 42%, than in any other region. More than 90% of the businesses are sole proprietorships, the majority of whom are men (males own 61% and females 39%). Partnerships follow with 4% and PTYs with 2.7%. The data also includes some analysis of the businesses at district level.

While the UBR is representative, it does not reflect the current picture on the ground given the life span of most small businesses and the fact that it is based on data of registered businesses in 2001 and 2002.

*The Micro and Small-Scale Enterprise Policy Unit was set up within the Ministry of Finance, Planning and Economic Development.*

*The Uganda Business Register estimates that 87% of SMEs are informal and 13% formal.*

*It is estimated that SMEs contribute over 34% of GDP and employment.*

### Contribution of SMEs to GDP and Employment Creation

Anecdotal evidence indicates that the SME sector is a major contributor to the economic performance of most African countries, including Uganda. It is, however, acknowledged that there is lack of concrete evidence based on research findings to support this assertion. This makes it harder to accurately establish SME productivity and to assess the impact of SME policies that have been implemented. In Uganda, it is estimated that SMEs contribute over 30% of GDP, 30% of employment and 80% of manufactured output.

This makes the SME sector the second largest contributor to employment and GDP generation in Ugandans (Kaswkende, 2001).

### SME Policies

The Uganda government has created a combination of policy interventions geared towards the development of the economy that have a direct bearing on the SME sector (Mbaguta, 2002). These include:

- The Poverty Eradication Action Plan (GOVU, 2004) whose aim is to reduce absolute poverty through sustainable economic growth;
- The Plan for Modernisation of Agriculture;
- The Medium-Term Competitiveness Strategy (MTCS) for the private sector aimed at improving competitiveness and promoting the private sector through various interventions that involve infrastructure provision, better financing and dispute resolution.

*There is no specific SME policy and no institutional framework to guide interaction amongst various stakeholders.*

In addition to the lack of an SME specific policy framework to guide government intervention, there is no institutional framework to guide the interaction amongst various stakeholders within the SME sector. A number of different government ministries have departments meant to cater for various aspects of SME development, but these work in isolation from each other as well as with other stake holders like the donors, Non-Governmental Organisations (NGOs) and various business support agencies that include the Private Section Foundation Uganda and Enterprise Uganda.

## Zambia

### *Sikaaba Mulavu*

Small and Medium Enterprises (SMEs) are heavily influenced by the political, economic and regulatory environment in a given country. Following Zambia's independence in 1964, the Zambian economy was predominantly in the hands of foreign multinational companies from developed countries, particularly Britain. The white settlers who controlled vast fertile land along the railway lines undertook most of the farming. Most of the indigenous people were employed in industry or farms and were providing what could be referred to as cheap labour.

In the late 1970s government nationalised all the major companies. Most of these companies were monopolies and therefore competition was stifled and very few SMEs provided auxiliary services to these organisations. The economic environment, therefore, was not conducive to a vibrant SME sector which subsequently did not play a significant role in the economy.

Following the 1991 elections the new government embarked on a new economic path. It embarked on a process of transition away from a centrally planned economic system and implemented a programme of liberalisation and deregulation. One of the attendant effects of these new policies was the downsizing of the workforce as most state-owned companies had excess staff mostly due to political expediency. In 1991 the total number of persons in formal employment was 544,200. By 2005 this number had been reduced to 416,228. In order to ameliorate the impact of job losses, the government created a skills development programme where those who were retrenched were given entrepreneurship skills. This training, coupled with the fact that some of those retrenched were given retirement benefits, increased the number of people going into small-scale businesses. Furthermore, the formal job market had shrunk, so most citizens had to resort to self-employment.

SMEs require facilitation and support to firstly, attract new investment from local resources or foreign direct investment, and secondly, to become sustainable and develop into larger enterprises. In Zambia, the government, in cooperation with the private sector as well as regional organisations, has undertaken this facilitation and support. The government is supporting and facilitating SMEs through initiatives such as the Tourism Development Fund, the Forestry and Timber Industry Support Programme, the Export Board of Zambia as well as the Zambia Investment Centre. Cooperating partners have also facilitated the growth of the SME sector in Zambia. This is manifested through initiatives such as the European Union Export Development Programme (EDP), the USAID Market Access and Trade Enhancement Programme (MATEP), the USAID Zambia Agri-business Technical Assistance Centre (ZATAC), the USAID Zambia Chambers of Small and Medium Business Associations (ZCSMBA) and the USAID Zambia Trade and Investment Enhancement Project (ZAMTIE). On the other hand, the private sector is supporting SMEs primarily through micro finance institutions under the umbrella of the Association of Micro Finance Institutions of Zambia. At the regional level, SMEs are supported by trade arrangements under the SADC trade protocol and trade initiatives established under the Common Market for Eastern and Southern Africa (COMESA).

*Zambia decreased the number of public sector staff from 544,200 in 1991 to 416,228 in 2005.*

*The government has created the Tourism Development Fund to facilitate SME involvement in this sector.*

### SME Definition

In Zambia, the definition of SMEs is outlined under section 2 of the Small Enterprise Development Act Cap 425 of the Laws of Zambia as show in Table 27.

**TABLE 27.**

*An SME is defined as micro if it employs not more than 10 people and small if it employs not more than 30 people.*

	Micro	Small	
Total investment, excluding land and building, does not exceed (Kwacha)	10 million	Manufacturing and processing	50 million
		Trading and service providing enterprises	10 million
Annual turnover does not exceed (Kwacha)	20 million		80 million
Employing less than (employees)	10		30

There is a proviso under both definitions to the effect that the values under both definitions can be varied by the Minister, by statutory instrument.

### Size of the SME Sector

*There is no accurate database of SMEs in Zambia.*

Currently there is no accurate database of SMEs in Zambia. Suffice to say that in Zambia most SMEs are members of the Zambia Chamber of Small and Medium Business Association. The association is funded by USAID. It has members in all the districts. The chamber promotes the development of SMEs in the country by providing business entrepreneurship skills through training; facilitating market linkages; and access to micro finance. It mobilises membership of small-scale entrepreneurs at district level through District Business Associations (DBAs) that are affiliated to the chamber. Currently the chamber has established DBAs in 55 out of the 73 districts of Zambia. Some DBAs have almost 200 members.

### Contribution of SMEs to GDP and Employment Creation

Currently there are no statistics that indicate the contribution of SMEs to the GDP. The contribution is based on sectors such as agriculture, mining, manufacturing, tourism etc. It is, however, clear that SMEs contribute significantly to the GDP in Zambia. Indeed, the Zambian economy largely comprises SMEs. The Zambian economy has been growing at an average rate of 4.3% between 1999 and 2005, representing the first period of uninterrupted positive real per capita GDP growth since 1965. With regard to employment, the number of people in formal employment has been shrinking in Zambia since 1991.



Meanwhile, there has been an increase in population and thus the number of employable persons. Therefore, a number of people are starting their own small businesses and employing others. SMEs currently employ a significant number of persons in the country. The contribution of SMEs to the broader economy is likely to be greater than the contribution of large corporations.

### SME Policies

The economic history of Zambia has been dominated by copper mining and commodity exports. The performance of the economy has invariably been linked to the mining sector. This was clearly demonstrated by the effect of the worldwide decline of copper prices in the early 1970s. The performance of the Zambian economy was adversely affected by this phenomenon, marking the downturn of the Zambian economy that was to haunt the nation for decades. One lesson that came out of this crisis was the need to diversify the economy. Consequently, successive National Development Plans placed emphasis on the diversification of the economy. The manufacturing sector was identified as one of the major cornerstones of the diversification process. The emphasis was on small-scale industries. Diversification entailed formulation of policies and establishment of both legal and institutional frameworks that would promote the process. In 1981 the Small Industries Development Organisation (SIDO) was established. It was expected to provide consultancy, financial, procurement and marketing services to small industries. Other support institutions established were: The Technology Development and Advisory Unit (TDAU), The National Council for Scientific Research (NCSR), and the Zambia Bureau of Standards (ZABS). In 1996 the Small Enterprise Development Board (SEDB) was established under the SEDB Act 1996. One of the key functions of the board was the formulation, coordination and implementation of policies and programmes for the promotion and development of micro and small enterprises. The incentives to micro and small enterprises are contained under section 20 of the Act as follows:

(1) An enterprise registered under this Act shall be entitled to the following incentives:

- Exemption from payment of tax on income for the first three years of operations for an enterprise operating in an urban area; and the first five years of operations for an enterprise in a rural area;
- Operation of a manufacturing enterprise for the first five years without a manufacturing licence required for such an enterprise under any law;
- Exemption from the payment of licensing fees required for such an enterprise under any law; and
- Exemption from the payment of rates on factory premises for the five years.

*Since the decline of the copper price in the 1970s, successive National Development Plans emphasised diversification of the economy.*

*Incentives to SMEs are included under the Income Tax Amendment Act of 2006.*

(2) The Trades Licensing Act shall not apply to an enterprise registered under this Act.

*Incentives for SMEs include exemption from tax for the first three years of operations in urban areas and five years in rural areas.*

Implementation of the above provision is contained in the Income Tax (Amendment) Act 2006 that gives tax incentives to SMEs. Clearly, the main objective of the various SME policies is to promote the development of small-scale industries in the country. This is premised on the conviction that small-scale enterprises play a significant role in the economy of any country. In the case of Zambia it also provides the means to diversify the economy from copper and thereby make it less vulnerable in times of lower copper production or indeed lower copper prices.

## Zimbabwe

*Marco Finiasi Machona*

*Zimbabwe has the highest inflation in the world at over 1000% per annum.*

The Zimbabwean Government faces a wider variety of challenges today than at any other time since independence in 1980. The growth of the Zimbabwean economy had been very encouraging up to the mid-1990s. Today, the government is struggling with an unsustainable fiscal deficit, over-valued exchange rate, the highest inflation in the world (somewhere in the region of 1,000%), EU, UK and USA sanctions, poor governance, an unresolved political impasse and low levels of democracy, where it is ranked together with countries such as North Korea.

The involvement in wars in the DRC and Mozambique crippled the formal economy and robbed the country of much needed resources. This was followed by chaotic land reform characterised by violence, corruption, theft of equipment, disruption of the commercial farming sector (resulting in a loss of 40 000 jobs) and poor policies for an emerging SME sector. In 2005, the Government embarked on the operation “clean out dirty” which was condemned world-wide, displacing more than 700 000 families who formed the core of the SME sector in Zimbabwe. Since then it has been dangerous to do follow up research on how the restructured SME sector is functioning. All these factors discouraged foreign investment, encouraged the black market and sidelined the SME sector.

*In a country that had one of the largest formal economies in Africa, there has been a large increase in informal and black market activities.*

Chigumira & Masiyandima (2003) unearth interesting findings that since the 1980s Zimbabwe’s SMEs have been facing enormous problems in terms of accessing credit and banking facilities. They cited crippling inflation, high lending rates and the use of conventional lending methodologies by banks as more restrictive today than they were more than 20 years ago. The emergence of the black market in Zimbabwe, especially in the last 10 years, has created and widened the gap between informal and formal economies and redefined SMEs in a country that had the largest formal economy in Africa (Chigumira, 2003). This is symptomatic of a reduction in economic growth from 6% in 1979 to 2% in 1985 and -4% in 2004/5 periods.

Like most African countries, Zimbabwe is characterised by a weak public sector, poor SME policies, corruption. Kayizzi-Mugerwa (2001) pointed out that African governments need to create a new modus operandi for the public sector and SMEs. He mentioned that it is very easy to derail reforms through ever changing domestic policies. Zimbabwe has yet to recognise that the state cannot afford to be the sole driver of economic growth but has to partner with SMEs and the broader private sector.

### SME Sector in Zimbabwe

SMEs are generally referred to as informal in Zimbabwe yet the opposite is true. Zimbabwe was one of the few countries in the 1990s that used to have accurate information, however, this is no longer the case. The main characteristics of the SMEs in Zimbabwe are identical to most African countries such as Zambia, Kenya and South Africa. In 1993, it was estimated that more than one million people were employed by the SME sector out of a workforce of three million (Rondinelli, 1993).

*The SME sector is seen as a threat to government especially since escalating conflict over the existence of the black market.*

The SME sector lacks information. Mporu (1993) has pointed out that a lack of information, poor research and an uncooperative government leads to a poor understanding of this sector. Zimbabwe is now characterised by little systematic research and a lack of primary data on SMEs. The SME sector is perceived as a political threat by the government because of daily protests and conflict with the state over the existence of the black market. Previous research done on this sector concluded that 48% of SMEs were formed a decade after independence. The main reason for this is that the government could not provide employment for all, especially for the majority of black people.

### SME Definition

The official definition of SMEs in Zimbabwe includes heterogeneous, formal enterprises and informal businesses which are complemented by estimates of the size of the informal economy. Just like the rest of the world, number of employees, total assets, sales and investment levels are commonly used yard-sticks. Various activities of SMEs include village handicraft makers, restaurants, computer software, shops, and many sophisticated skills that drive different markets.

*It has been estimated that 34% of Zimbabwe's economy is informal, but this figure has probably increased.*

Zimbabwe defines SMEs according to a lower limit of 5-10 employees and an upper limit of 50-100 employees for a small organisation. Medium enterprises were defined to have lower and upper limits of 100 and 250 employees.

### Size of the SME Sector

Using 250 employees as a cut-off for the definition of SMEs, Zimbabwe scored 15,2%. The informal sector, which is the share of the shadow economy participants as a percentage of the formal sector labour force,

is 33,96% for Zimbabwe. Nobody knows how these figures have changed since “operation drive-out dirty”, a government operation that saw 700,000 families being displaced in 2005 from all major cities.

*Zimbabwe has one of the highest SME entry costs, averaging 305% of GNI per capita.*

### **Contribution of SMEs to GDP and Employment Creation**

The APEC, World Bank and Inter-American Development Bank findings concluded in 2002 that Zimbabwe’s GDP/Capita was 643.84, with 11% coming from SMEs especially in mining and agriculture. Zimbabwe has more than 80% unemployment and recent GDP figures are perceived with suspicion. It is believed that Zimbabwe is experiencing a minus 5% economic growth with inflation rate above 1,000%. In recent international media reports, Zimbabwe’s inflation is expected to soar to 4,000%, hindering the SADC region to achieve a targeted 4% economic growth. Contribution of SMEs to GDP and employment creation is anybody’s guess in a country facing so many challenges. Zimbabwe has one of the highest SME entry costs, averaging 304,7% of the GNI per capita. The majority of SMEs are constantly faced with an ever changing business environment like high inflation, political uncertainty, high interest rates, shrinking consumption base and lack of foreign exchange.

*All development plans post independence have failed.*

### **SME Policies**

The country embarked on several development plans after independence and these plans are as follows:

- The Transitional National Development Plan (TNDP);
- The First Five Year National Development Plan (FFYNDP);
- The Second Five Year National Development Plan (SFYNDP);
- The Economic Structural Adjustment Programme (ESAP) 1990-1995;
- The Zimbabwe Programme for Millennium Economic Recovery Programme (ZIMPREST) 1996-2000;
- The Zimbabwe Millennium Economic Recovery Programme.

*The latest development plan is the Zimbabwe Millennium Economic Recovery Programme.*

The main goal was to achieve growth with equity eliminating economic and social inequalities that existed prior to independence.

#### **TNDP**

It was one of the first policies introduced after independence to address inherited inequalities.

#### **FFYNDP**

This policy attempted to recognise the importance of industrialisation to economic development and growth. Zimbabwe lacked cohesive follow-up measures to implement this policy, hence it failed just ESAP did.

## ESAP

The vision of the policy was to address persistent poverty, stagnant economic growth, high budget deficit, high inflation and declining foreign investment and investment levels. ESAP was to restore macroeconomic stability through a wide array of policies like reduction of government expenditure, trade liberalisation, public enterprise reforms, and deregulation.

The major macro economic targets of ESAP were to achieve a 5% annual growth rate in GDP between 1991 and 1995, raise savings to 25% of GDP, raise investment to 25% of GDP, reduce inflation from 17.7% to 10% by 1995, reduce budget deficit from over 10% to 5% of GDP by 1995; and achieve export growth of 9% per annum (Mpofu, 1993).

However, these objectives were not achieved and ESAP failed. All economic and social inequalities that ESAP intended to address surfaced again. The Central Statistical office in 1998 reported that poverty in Zimbabwe increased from 40.4% in 1990/91 to 63.3% by 1995/6. Inflation soared to 42.1% in 1992 before falling to 22.5 % in 1995 against a target of 10% (SIRDC). By 2000, the inflation rate was above 60%. Today Zimbabwe is above 1,000%, the highest in the world and showing no signs of slowing down.

## ZIMPREST

Zimprest was a developmental plan which was launched for the year 1996 to 2000. The policy was aimed at reforming any National owned programme. It was initiated after the Government failed to meet IMF targets of reducing fiscal deficit in 1995 to at least 5% of GDP. The policy maintained the same thrust and economic strategies as in ESAP. Additional scope of the policy included social concerns and negative impacts of droughts. However, this policy has also failed. Subsequent to Zimprest, Zimbabwe embarked on the Zimbabwe Millennium Economic Recovery Programme, but as has been made clear earlier on in this report, that policy has failed dismally.



# ICT Infrastructure

This chapter discusses the ICT infrastructure of 14 countries that participated in the survey. The information collected to compile this chapter was used to measure the impact of ICT usage on the performance of SMEs. Access to ICTs and the cost of using them vary considerably from country to country. Figures 4 and 5 compare the cost of bundles of telecommunication services among participating countries. The cost in local currency was converted into US\$ using implied purchasing power parity exchange rates to account for differences in cost of living.<sup>12</sup>

*Telecommunication costs vary dramatically between survey countries relative to living costs.*

## COST OF BUNDLE OF MOBILE CALLS IN US\$ (PPP)

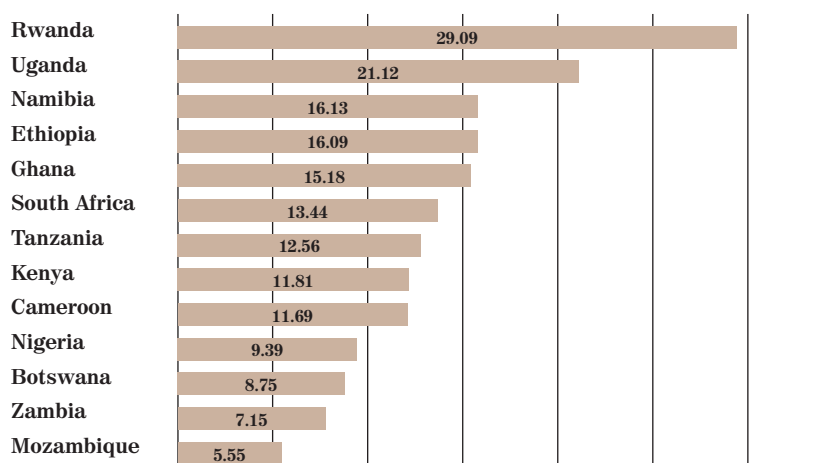


FIGURE 4. Price comparison for mobile services

12. Zimbabwe was excluded from the comparison above. Implied PPP conversion rates are calculated annually by the IMF. Using annual average figures for a country with a triple digit inflation rate would give an inaccurate picture.

**COST OF BUNDLE OF FIXED CALLS IN US\$ (PPP)**

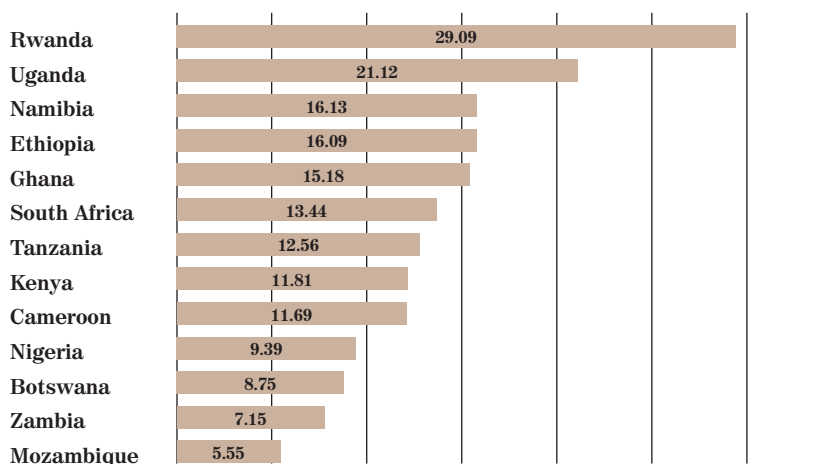


FIGURE 5. Price comparison for fixed telephone services

The extent of ICT adoption and the potential impact on the performance of SMEs depend more on relative costs than nominal ones. For example, ICTs will not be used much if it is cheaper to send someone rather than to call someone to convey a message.

The bundle for mobile services was based on the following services:

- 3 minute off peak to same network;
- 3 minute peak to same network;
- 3 minute off peak to different network;
- 3 minute peak to different network;
- 3 minute off peak to fixed line;
- 3 minute peak to fixed line.

The bundle for fixed line services consisted of the following services: 3 minute local call; 3 minute national call; and a 3 minute call to the US.

## Botswana

*Sebusang E M Sebusang*

Botswana’s ICT infrastructure has been growing quite impressively over the past couple of years. As indicated in previous RIA! research reports (RIA!, 2005) the physical infrastructure for the fixed-line network is increasingly moving away from microwave links to a nationwide fibre ring, which will be complete once the final phase covering the western side of the country gets under way in 2006. This expansion has been in part a response to the policy focus by government to ensure that the



country runs on a modern, high capacity fibre network. It has also partly been a response by Botswana Telecommunications Corporation (BTC) to the business challenge posed by the two cellular phone operators. However, the main push factor has been the regulatory environment, particularly the on-going tariff rebalancing to ensure that telephone charges to the consumer are cost based.

**TABLE 28. KEY ICT INDICATORS**

Key ICT indicator			Total
Number of fixed lines (April 30, 2006)	Botswana Telecommunications Corporation (BTC)		132,546
Number of Mobile subscribers	Mascom Wireless	504 991	838,967
	Orange Botswana	333 976	
Number of Internet subscribers			8,000 <sup>a</sup> or 15,000 <sup>b</sup>
Number of ISPs			29
Number of International Voice Gateway Licences		BTC	1
Number of International Data Gateway Licences	Private Network Telecommunications Service Providers	16	58
	Data Service Providers	13	
	Internet Service Providers	29	

a. As per estimation of Intelcon Research and Consultancy Ltd. (Intelcon 2006)

b. ITU statistics

### Background on Regulatory Environment

The Botswana regulatory environment has, bar the changes that occurred in 2004 with the revision of the Telecommunications Act, remained structurally the same. The revision of the Telecommunications Act resulted in the separation of the chairmanship of the Botswana Telecommunications Authority (BTA) from the Chief Executives Office (CEO), which made sense for corporate governance reasons and the hiving off of some of the historically BTA roles of regulating the industry to the Ministry of Communications Science and Technology (MCST). The only new developments on the ground relate to the desire for further liberalisation, which has required of BTC to re-balance its tariffs – a process that was started in 2005 resulting in increases for local calls whilst international call charges saw a drop. The consultancy report by OVUM (2005) recommended other far reaching policy interventions such as moving away from infrastructure based competition to a licensing regime that is technology neutral; terminating BTC's monopoly on international voice gateway licence; and many others that government is still grappling with. This state of affairs was correct up until June 2006.

A more liberalised environment has been ushered in from that date, when the Minister of Communications Science and Technology announced government's decision on further liberalisation.

*Botswana liberalised its telecommunications market further in 2006.*

As of 01 August 2006, VoIP is no longer illegal, meaning ISPs can now offer voice telephony over the Internet. Additional liberalisation included the lifting of the restriction of self-provision of transmission links by the two mobile phone operators, making them further independent of the BTC (should they so choose) in their backbone infrastructure. The biggest change on the horizon is the decision to allow the three operators, Mascom, Orange and BTC, to operate under service-neutral licenses as from 01 September 2006. This means the three can offer both mobile and fixed-line telephony under the same licence. The incumbent operator, BTC, is already reported to have applied for this license well ahead of schedule, getting in even before the regulator can put in place regulations relating to the changed environment. As a result, Botswana will have three mobile operators with national coverage by the end of 2007 and this is in addition to the possibility of regional mobile operators should one of four envisaged rural/regional operator licensees (as from 01 September 2006) choose a mobile platform from which to offer services. A month later, on 01 October, BTC will lose its monopoly on the international voice gateway, followed by fully balanced tariffs by December 2007, which should then usher another national service neutral licence in December 2009.

*New ICT Policy foresees Botswana to become a ICT hub for the SADC region.*

Two significant developments have taken place over the regulatory environment: first the adoption of a formative ICT policy by the name of Maitlamo ([www.maitlamo.gov.bw](http://www.maitlamo.gov.bw)), that wishes to position Botswana as an ICT hub for the SADC region. The second development was the opening up of the national broadcasting landscape with the advertisement of three national broadcasting licences. Whereas Botswana has had two regional (urban) private radio stations since the late 1990s, it has never had a national private, commercial radio station. This new development is bound to change the broadcasting environment quite considerably. What the new draft ICT policy will usher in is a more broad-based communications regulator (not just telecommunications), requiring that the BTA transform into a converged regulator along the lines of ICASA of South Africa. In addition, the semi-independent telecommunications and broadcasting boards will be consolidated into one body.

*Botswana is also opening up the national broadcasting landscape.*

Further developments in the regulatory landscape will follow a process of consultation such as the structure and commencement of Botswana's Universal Access and Service Policy (and Fund) that Intelecon Research & Consultancy Ltd. of Canada have been engaged to develop. Also, the drafted rural telecommunications policy, which envisages removing BTC's obligations to provide rural telephone connectivity that might not be profitable, envisages a process of soliciting, through competitive tender, providers of rural telecommunications with smart, timed subsidies from a functional universal access and service fund. This is a timely change of approach since government has decided to fast-track BTC's privatisation and to find a strategic equity partner with a holding of at least 40% of BTC's shares.

As Table 28 capturing the key ICT indicators for Botswana shows, the phenomenal growth of the mobile phone has continued whilst fixed line penetration has declined from what it was in the early 1990s. A large number of international data gateway licences have been issued, ensuring that the data market is competitive, whilst the international voice market is still the preserve of the Botswana Telecommunications Corporation. There are now 6.33 times more mobile phone connections than fixed line.

*Botswana has 6.33 times more mobile phone connections than there are fixed line ones.*

### Telecommunication Pricing

Telecommunication pricing for voice, whilst high by international standards, has fallen due to the competitive nature of the market where two cellular phone providers compete for users with the incumbent fixed-line provider. The two cellular providers have moved towards a single charge for calls (only differentiated by peak or non-peak) to any network, whether own, another or fixed line, with Orange (Botswana) fully implementing this change whilst Mascom Wireless has maintained a different off-peak charge for calling another network. Overall, the cost of making voice calls on the fixed line is still high, though it has become more competitive for international calls since the phased tariff rebalancing by BTC over a year ago. This reduction in international voice charges has been accompanied by an increase in local call rates, which considering the reducing fixed-line connections since the early 1990s, could further accelerate the lack of access to fixed-line telephony and with it access to the Internet.

*Tariff rebalancing has helped to reduce international call rates and increase local call rates.*

**TABLE 29. FIXED-LINE PRICING: LOCAL CURRENCY  
(BOTSWANA PULA)<sup>a</sup>**

	BTC Cheap/ (Full) Rate including 10% VAT
3 minute local call	P0.66 (P0.86)
3 minute national call	P1.45 (P2.38)
3 minute call to the US	P6.60 (P7.59)

a. Source: BTC Phone book 2006 ([www.btc.bw](http://www.btc.bw))

**TABLE 30. MOBILE PRICING: LOCAL CURRENCY  
(BOTSWANA PULA)<sup>a</sup>**

	Mascom	Orange
3 minute off-peak to same network	P2.70	P2.63
3 minute peak to same network	P5.40	P5.25
3 minute off-peak to different network	P3.30	P2.63
3 minute peak to different network	P5.40	P5.25
3 minute off-peak to fixed line	P2.70	P2.63
3 minute peak to fixed line	P5.40	P5.25

a. Source: Mascom Web-site ([www.mascom.bw](http://www.mascom.bw)) and Orange (Botswana) ([www.vista.bw](http://www.vista.bw))

## Cameroon

*Olivier Nana Nzépa & Robertine Tankeu Keutchankeu*

*Intensified competition between fixed line and mobile operators lead to higher effective fixed line but lower mobile call rates.*

Since the partial opening of Cameroon's telecommunications market to competition, the sector has not stopped changing. After selling its mobile operations to MTN in 1999, the incumbent has re-entered the mobile market. The sector now has three mobile operators: MTN with a portfolio of 1 million subscribers; ORANGE, with close to 1.5 million subscribers and CAMTEL which has just been granted a mobile licence. CAMTEL is still the sole fixed line operator with a portfolio of 95,500 subscribers. In 2005, it introduced a new service called CT phone, based on WAP technology. The aim of this service, offered initially in the two main cities, Yaoundé and Douala, with extension to other cities, was to reverse the downward trend in its market share.

**TABLE 31. KEY INDICATORS**

Indicator		
Number of fixed lines (March 2006)		around 100,000 lines
Number of fixed line operators		1
Number of CT phone subscribers		around 30,000
Number of mobile operators		3
Number of mobile subscribers	MTN 10/2005	1,000,000
	Orange 04/2006	1,500,000
Number of Internet subscribers	CAMTEL, 03/2006	4,830
	Icenet, 09/2005	4,850
	Global net, 09/2005	210
	Creo link, 03/2006	1,000
	Saconet S.A., 03/2006	200
	CENADI, 09/2005	301
	Equatorial, 10/2005	76
Number of International Voice Gateway Licences, April 2006: 7a	CAMTEL, Be Technologie, Connecteo Cameroon sa, Doualal.com, Netpool Telecom sa, Omniserv Entreprises, Pastel SA	
Number of International Data Gateway Licences, April 2006: 26b	CAMTEL, Adsnet, BE Technologie, Braouz Services Internet, Connecteo Cameroon s.a, Creolink, Cyberix, Doualal.Com, Equatorial Communication, GCNet, GIC CVCam, Global net Inc., Hsp. ICCNET SA, INTELSOFT SARL, ITD, Jupiter Communications, Media Planet inc, Omniserv Enterprise, Netpool Telecom sa, Pastel SA, Sotelcom, Socatel, Sogec, Synercom, Telkom Cameroon	
Number of ISPs, April 2006		36

a. Telecom Regulatory Agency, April 2006

b. Telecom Regulatory Agency, April 2006

Aggressively priced at 50 CFA francs per minute (a quarter the going mobile rate) the service has enjoyed some success. This service seems to have had a three-fold effect on the market. The first effect was the silent 20% increase in fixed line local call prices. A three minute call is now 50 CFA francs compared with 40 CFA francs prior to the introduction of the CT phone. As a result, a number of people are cancelling their fixed line subscriptions. A second effect is the response from mobile operators. They have slashed their prices by between 20 and 30%, making the entry of the incumbent in the mobile market less attractive. The third effect is that the mobile operators are providing more services which are not yet available on the CT phone network.

**TABLE 32. ICT INFRASTRUCTURE**

Telecom revenue 2004 (M US\$)	75.6
Revenue CAGR (1998-2000)	6%
Main lines 2005	95,500
% Residential lines 2005	87
Main line per 100 people	0.67
Residential main line per 100 households	3.1
% Digital 2005	68
Public phones 2005	6,550
Estimated Rural fixed line 2005	7,600
Urban-Rural telecom disparity 2005	9.3
Waiting list as % of fixed lines 2005	15.3
Telecom revenue as % of GDP 2005	1.0
Connection charge (US\$ residential 2005)	42.00
Residential line rental (US\$) 2005	2.50
Basket of fixed line costs <sup>2</sup>	76.50
Basket of cost as % of per capita income	11.5
Mobile subscribers (2006)	2,500,000
Mobile subscribers per 100 people (2005)	4.00
Mobile as % of total subscribers 2005	91.3
Mobile CAGR (2004-2005)	272.5%
Number of ISPs 2005	70+
ISP charge (US\$) 2005 30hrs/month	77.20
Monthly cost of 64 kbs data channel	588.00
Internet users 2005	80,000
Cities with local dial-up IP POPs 2005	4
International Internet bandwidth	9,000kbps
PCs 2005	80,000
TVs 2005	720,000
Cyber-café / tele-centres	500+

Another move that has caused outcry in the country is the take-over of Global Net, an ISP, by MTN in December 2005. The take-over prompted ORANGE to consider merging with CREOLINKS, another ISP, and

CAMTEL to sub-contract its ADSL operation to ICCNET, the first local ISP. A breakdown of the ICT landscape is provided in Table 31, on page 72.

Overall, the number of telecommunications subscribers is still increasing, mainly because of the booming mobile phone industry and the expansion of its network. One local company, Doula1.com is seeking to address the problem of the lack of good long distance infrastructure facilities by trying to launch a joint venture with the national power company, AES-SONEL to develop a nationwide fibre-optic network, similar to the Nigerian project underway involving NEPAD and Eskom.

*A pipeline project was used to role out fibre backbone.*

Also, the Government of Cameroon has subsidised COTCO, the company which built the Chad-Cameroon pipeline, to install a fibre-optic telecom network along the pipeline within the next 12 months. This international backbone runs from Douala to Ndjamena, with eleven POPs in the country covering Douala, Yaoundé and nine other towns. In 2005, CAMTEL was granted permission to lease capacity on this backbone in order to provide lower fixed-line costs. The incumbent, CAMTEL, will lose its monopoly of fixed line operations by the end of 2006.

*The regulatory environment in Cameroon is poor with an erratic legal system and ripe corruption.*

### **Background on Regulatory Environment**

The regulatory environment is part of the overall business environment and can be described as poor. It includes official corruption and an erratic legal system. The country was placed 129th out of 145 countries on the Transparency International 2004 worldwide corruption index, with a score of 2.1 out a possible 10. It is one of the 60 countries where corruption is endemic. Camtel's extended exclusivity and what is considered as ART (Telecommunication Regulatory Board) complacency has cast a spell of uncertainty over investment conditions. Observers note that ART's authority has not been clearly defined and that the regulator is wary of creating too much competition, all of which contribute to an unattractive investment environment. Many of the smaller competitive players are operating clandestinely, while waiting for ART to fully establish itself. Nevertheless, ART has made some progress such as working closely with industry players, and setting up an agenda for development. It is streamlining the process for telecom licensing and the spectrum licensing process now brings four required government agencies together in a single session, as opposed to letting an application move slowly through all four in series.

*Some progress has been made towards streamlining licensing.*

There has also been some improvement in ART's efforts to take control of the sector and to shorten the time required to process licence requests for satellite and VSAT installations. Furthermore, the Government has put in place an investment code that is favourable towards foreign investors.

### Telecommunication Pricing

Competition in the sector has increased thanks to the CT phone and the granting of a mobile licence to CAMTEL. While the prices of mobile communications are falling, the prices of fixed lines have increased.

**TABLE 33. FIXED-LINE PRICING FIXED: FRANCS CFA**

Fixed-line calls	CAMTEL
3 minute local call	150
3 minute national call	210
3 minute call to the US	1,620

**TABLE 34. MOBILE PRICING MOBILE: FRANCS CFA**

Mobile calls	CAMTEL	MTN	Orange
3 minute off-peak to same network	217	480	360
3 minute peak to same network	435	480	560
3 minute off-peak to different network	217	480	360
3 minute peak to different network	435	480	560
2 minute off-peak to fixed line	217	480	360
3 minute peak to fixed line	435	480	560

## Ethiopia

*Lishan Adam*

The ICT sector in Ethiopia has seen modest growth during the last two years, although it is still one of the lowest in Africa. Fixed line telephone penetration grew more than three-fold from a low base of 0.26% in 1996 to 0.84% in 2005. Mobile penetration has been growing and making up for the lack of adequate fixed lines in Ethiopia. However, mobile penetration has been very limited compared to the high pent up demand for mobile and compared to other countries in Africa. Similarly, the incumbent has been unable to meet the growing demand for fixed lines. Pent-up demand is staggering. The registered waiting list for fixed lines was 58,755 during 2005. The development of the Internet in Ethiopia tells a similar story. Although the Internet was introduced in 1996, there were only 17,590 Internet subscribers by 2005 giving a density of about one subscriber per 4,000 people (ITU, 2004). This means, notwithstanding a recent increase in investment, that the size of the Ethiopian ICT sector is still very small by all measurable indices, with the lowest computer penetration, tele-density, number of hosts and Internet users in any of the countries surveyed.

*Fixed and mobile operators cannot keep up with demand and waiting lists grow continuously.*

TABLE 35. KEY ICT INDICATORS

Indicator	Total
Fixed lines	610,347 (Mobile tele-density 0.58%)
Mobile subscribers	410,630 (Fixed tele-density 0.84%)
Rural Access	Rural access to 3,000 farmers associations by end of 2006 and plans to connect the remaining 18,000 farmers associations in 2008. Lay out 4,000 km fibre links and Microwave Connections to major towns.
Broadband	Broadband Internet service for Addis Ababa with Points of Presence in major towns. A broadband multimedia network composed of optical network systems with a 2.5 Gbits optical ring to interconnect telecommunication services within the capital, a multi-service switching IP/ATM system to provide integrated switching for multimedia traffic within a capital and other regional towns and broadband access service to clients through Asymmetric Digital Subscriber Line (ADSL), Fixed Wireless Access (FWA) and Aironet Wireless Access has been commissioned.

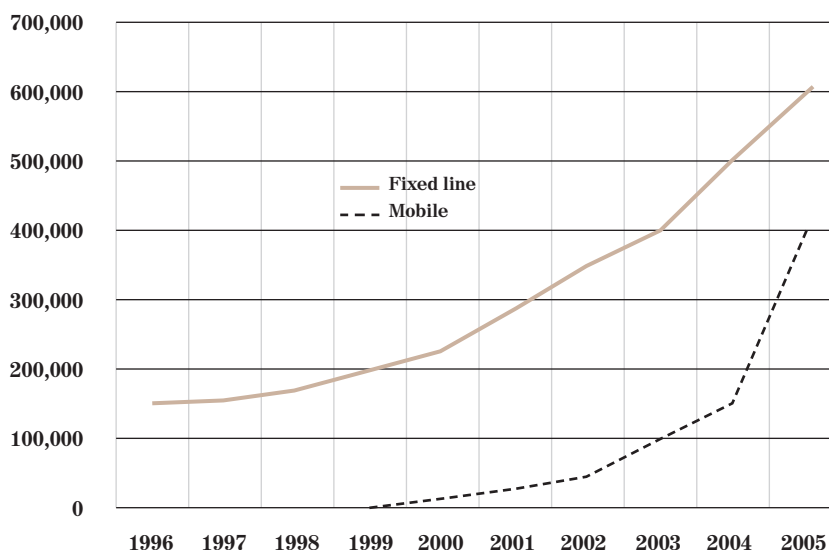


FIGURE 6. Fixed and Mobile Line Growth

*The low levels of ICT penetration are due to monopoly.*

The low levels of ICT penetration are partly due to a market structure that was designed around a public monopoly of communication services, and a weak regulatory regime. The Ethiopian Telecommunications Corporation (ETC) is the incumbent public telecom operator, with a monopoly over all telecom services including fixed, mobile, Internet and other value added services. Although the investment proclamation No. 116/1998 encourages private sector investment in the telecommunication sector in partnership with the Government, this has not happened. A search for a strategic investor that could inject capital,



transfer technical expertise and management skills began in 2002. The possibility of selling parts of ETC to private partners was also explored. This was followed by the issue of an international tender for private participation in the telecommunication sector in Ethiopia.

However, the selling of equity in the incumbent was abandoned due to several factors including a lack of interest from investors due to the uncertainties about the strategic partnership and the government's apprehension about the impact of telecommunications liberalisation on the economy. Subsequently, government has over-hauled the management of the ETC and adopted a "wait and see" attitude rather than pursuing the originally planned strategic equity route. Under new management, the ETC issued a strategic plan with a focus on upgrading to next generation networks (NGN), diversifying services to meet the growing demand for broadband connectivity, up-skilling its human resources to be able to deal with IP-enabled services, and exploring innovative financing mechanisms to meet the growing demand for infrastructure deployment. Some progress has been made in rolling out broadband infrastructure, particularly fibre connections to rural towns and increasing mobile penetration.

Despite pressure from international financial institutions to force the government to liberalise the market (at least some sectors such as VANS), the monopoly regime has remained strong in Ethiopia. Close observation also indicates that in the short term it is unlikely that liberalisation will follow the management overhaul. Policy makers in Ethiopia have been cautious when it comes to the liberalisation of the telecommunication sector. They have continued to argue that liberalisation will not result in a positive net change in social welfare due to the profit motives of multinational companies and that they are often more interested in the top-end of the telecom market.

There is also growing anxiety about whether multi-national corporations will be accountable to the citizens' needs, particularly in deploying communications to the rural areas where they are needed most. The government feels it has the obligation to deploy the communication networks to rural areas, and the incumbent operator should do this. Other factors such as creating employment and potential labour disputes are also part of the calculation to resist liberalisation of the sector.

Currently the policy focus is on the expansion of rural communications through a Rural Communication Project (RCP) in line with the government decentralisation programme to district and village levels, while improving the internal capacities of the incumbent to deliver both Internet-enabled services and broadband infrastructure nationwide. While this is expected to improve access to ICTs by small and medium enterprise in rural areas, the role of SMEs in providing communication services and benefiting from them is not well articulated in the national ICT strategy, including the Rural Communications Project.

*Investors are scared away from Ethiopian telecommunications market due to political and regulatory uncertainty.*

*Policy makers argue that liberalisation will not bring economic and social benefits, contrary to global experience.*

*Ethiopia concentrates on a incumbent driven rural telecommunications project.*

*Ethiopia isolated itself from the global wave of pro-competition and liberalisation policies.*

**Background on Regulatory Environment**

Ethiopia’s telecommunications sector has been a public monopoly since the beginning of the 20th century. Ethiopia isolated itself from the global wave of pro-competition and liberalisation policies. Some reform process began in 1996 with the adoption of proclamation 49/1996 that established the regulator, the Ethiopian Telecommunications Agency. This was followed by the Council of Ministers Regulation No. 10/1996 that established the Ethiopian Telecommunications Corporation as a public enterprise with monopoly over telecommunication services. The general policy atmosphere has changed only slightly since then. In 2002 the government issued a proclamation for private sector participation on the margin of telecommunications services such as resale of telecommunications services, indoor and outdoor installation of telecommunications cables and wireless services. There have also been some initiatives to licence ISPs, although this has not been implemented yet. As can be seen from Table 36, only downstream services such as call centres and messaging services were liberalised by 2005.

**TABLE 36. REGULATORY AND POLICY HIGHLIGHTS AS AT END OF 2004<sup>a</sup>**

Services	Policy
Fixed line and mobile	ETC is the sole provider of fixed and mobile services. Attempts were made to unbundle these internally services.
Internet services	ETC is the sole provider of Internet service; so called virtual ISPs are expected to be licensed if they buy services from the incumbent and abide by the stringent rules.
Downstream value added services such as call centres, cyber cafés and messaging services	Downstream value added services such as call centres, pay phones and messaging services are allowed for competition. However, there are a few legally registered phone shops; cyber café services are allowed.
Call back and other long distance services that use modern technologies	Call back or use of modern technology to divert the long distance traffic is not allowed and is punishable by fines and imprisonment. However, there are “grey” long distance service providers who have continued to threaten the incumbent’s revenue.
VSAT	Individuals and enterprises are not allowed to own VSATs. International organisations are allowed to own VSAT with payment of traffic compensation or “landing right” fees on a case by case basis.
VOIP	VOIP is not allowed.
Telecommunications equipment	Sale of mobile and telephone handsets is allowed. Individuals are required to present customs declaration forms for their handsets to secure mobile subscription.

a. Source: ETC Strategy paper 2004-2006, Council of Ministers Regulation No. 10/1996; Proclamation No. 49/1996; Proclamation No. 116/1998 and Council of Ministers Regulation 47/1999

The lack of competition in telecommunication services implies that small and medium enterprises will be unable to benefit from the reduction of costs and the expansion of services as experienced across Africa. Except for very few, SMEs have been unable to participate in the delivery of communication services.

### Telecommunication Pricing

Favourable consumer pricing is a major aspect of universal service, particularly in rural areas where service affordability is low and where the majority of small and medium enterprises operate on meagre resources. Despite the low level of network expansion, Ethiopia's pro-poor and pro-rural policy has been effective in terms of maintaining a relatively affordable telecommunications pricing regime for over a decade.

**TABLE 37. FIXED-LINE PRICING: LOCAL CURRENCY AND US DOLLARS**

	ETC charges
3 minute local call	0.1 Birr (US\$0.01)
3 minute national call	16-50 km: 0.1 Birr (US\$0.01) 201-300 km: 0.6 Birr (US\$0.07) 551-700 km: 3.0 Birr (US\$0.35) 700 km & more: 6.0 Birr (US\$0.70)
3 minute call to the US	34.5 Birr (US\$4)

The pricing of telephone services is comprised of one-off connection charges, monthly subscription fees and per minute call charges. Mobile charges are also small compared with some other countries. However, this does not imply that cost of communications is cheap for the majority of enterprises. Household incomes in Ethiopia are the lowest in Africa, therefore the majority of people barely afford the current communication costs. Since there is only one provider of mobile and fixed line services, the interconnection charges are small. Tables 37 and 38 present the current telecommunications pricing in Ethiopia.

*Despite the low level of network expansion, Ethiopia's pro-poor and pro-rural policy has been effective.*

**TABLE 38. MOBILE PRICING: LOCAL CURRENCY AND US DOLLARS**

	ETC charges
3 minute off-peak to same network	2.50 Birr (US\$0.29)
3 minute peak to same network	2.50 Birr (US\$0.29)
3 minute off-peak to different network (long distance)	5.20 Birr (US\$0.60)
3 minute peak to different network	5.20 Birr (US\$0.60)
3 minute off-peak to fixed line	2.60 Birr (US\$0.29)
3 minute peak to fixed line	2.60 Birr (US\$0.29)

## Ghana

*Godfred Frempong & George Essegbey*

The ICT sector in Ghana has witnessed many changes since the 1990s when the sector was deregulated. Prior to that, the legal and regulatory framework of the ICT sector provided exclusivity rights to few public organisations, while in the other areas limited room for competition was allowed. With the reform, many companies have been licensed to provide varied ICT services to Ghanaians. These include mobile telephone services, paging and Internet as well as data management and transmission services. Others have concentrated on niche areas such as sale, installation and repair of communication equipment, wiring of consumer premises, networking and other auxiliary activities. This section provides a brief overview of the regulatory environment and key indicators for Ghana's ICT sector..

### **Regulatory Environment**

Until the late 1970s, Ghana Posts and Telecommunication Corporation (P&T) was both the provider and a regulator of telecom services in the country. The P&T was responsible for assigning and issuing radio frequencies to private, public, and government institutions for the operation of radio and other communication equipment. With the establishment of Ghana Frequency Registration and Control Board (GFRCB) in 1977, some regulatory functions were taken away from P&T and assigned to the GFRCB which became the body with the authority to approve and issue licences to commercial and amateur radio operators in the country.

In response to the changing landscape of the telecom sector, which led to the introduction of multiple operators, a single regulatory agency - the National Communications Authority (NCA) was created by an Act of Parliament to oversee the development of the sector. The NCA was empowered by the Act to issue licences to all telecommunication operators. It also had the authority to actively promote competition and investment in the sector by setting attractive entry conditions for new operators, and ensure an equitable settlement of issues such as interconnection, frequency allocation, business or market conflicts. It was also entrusted with the responsibility of protecting consumers. The NCA's regulatory role covers telecommunication, broadcasting and frequency spectrum<sup>13</sup>. With the establishment of the NCA, all regulatory functions were transferred to it from the Ministry, P&T and the Ghana Frequency Registration and Control Board (GFRCB).

13. There is the National Media Commission which has responsibility for the media development and insulation from political manipulations.

TABLE 39. KEY INDICATORS<sup>a</sup>

Indicators	Numbers
Fixed Line Operators	2
Ghana Telecom	328,000
Westel	3,000
Total Fixed Line Telephone Subscribers	331,000
Cellular Mobile Operators	4
Areeba	1,600,000
Tigo	530,000
One Touch	450,000
Kasapa	75,000
Total Cellular Mobile Subscribers	2,655,000
Payphones	
Ghana Telecom	10,872
Westel	165
Total No. of Payphones	11,037
Internet Data Service Providers	29
VSAT Data Operators	57
Public/ Corporate Data Operators	25
Internet Users (2004)	368,000
Internet users per 100 inhabitants (2004)	1.72
Personal Computers per 100 inhabitants (2004)	0.52
International Voice Gateways Licence	4
International Data Gateways Licence	29

a. Sources: National Communications Authority, and ITU Basic Statistics, 2005

### Key Indicators

The ICT infrastructure of the country has been evolving and as at December 2005, Ghana had two main fixed line network operators with a total subscription of 328,000 of which Ghana Telecom (GT) controls over 95%. In addition, there are four cellular mobile telephone companies which for the same period had a total subscription of 2.6 million subscribers. The combined (fixed line and mobile) teledensity in 2005 stood at 15 per 100 inhabitants. The number of telephone operators makes Ghana one of the most liberalised telecom markets in Africa. Areeba (formerly called Spacefon) controls over 60% of mobile telephone market. Table 39 provides some indicators about the status of ICT infrastructure in Ghana.

*Ghana is one of the most liberalised telecom markets in Africa.*

There has been remarkably little deployment of payphones in the country. In December 2005, there were a little over 11,000 payphones installed in the country. In comparison, in 1993 there were only 25 payphones in the country - all located in Accra in places such as the International Airport, Trade Fair Centre, Accra-North Post Office and Cantonments Post Office (Frempong, 2004). Since then pay phone

*Public pay phones play a minor role in Ghana.*

penetration has increased substantially but it still falls short of the target of one pay phone for every community of 500 people (GOVG, 1994). This was one of the targets of the Accelerated Development Plans for the sector launched in 1994 by the Ministry of Communication<sup>14</sup>. With regard to other services, there are 29 Internet Service Providers in the country. The major ones are Africa Online, Network Computer System, Internet Ghana and Integrated Digital Network. There are also 25 companies with a licence to operate corporate data networks, and 57 companies to provide VSAT services for data transmission services. In terms of international voice gateway licence, with the exception of Kasapa, all the other mobile companies, in addition to the fixed line operators, have international voice gateway licences. The prerequisite for qualifying for international gateway license by the telecom operators was largely their subscriber levels, and it is possible that Kasapa has not attained an appropriate subscriber level.

For data transmission the NCA allowed the ISPs to establish direct links with their foreign exchange points through VSAT networks. This enabled internet operators the opportunity to have international gateway services. However, it is not clear if all the operators have their own gateways. The majority have rented circuits from VSAT operators to access and transmit data.

### Telecommunication Pricing

Tables 40 and 41 illustrate telecom pricing in Ghana. There is no price differentiation between local and long distance calls. The charge for both calls is for three minutes, and in the case of Ghana Telecom is c1,500, while that of Westel is c1,800. For a three-minute call to mobile networks, Ghana Telecom charges c4,200 and that of Westel is c3,000. It must be stressed that Westel's lower rate for terminating calls into mobile telephone networks does not give them any competitive advantage as their share of the telecom market is insignificant.

**TABLE 40. ICT PRICING: LOCAL CURRENCY**

Fixed line call	GT	Westel
3 minute local call	c1,500	c1,800
3 minute national call	c1,500	c1,800
3 minutes to cellular mobile	c4,200	c3,000
3 minute call to the US	c7,500	c9,300

All the mobile operators, in terms of on-net calls have no different rates for peak and off-peak calls. Areeba charges c4,500, Tigo, c6,300, One Touch c5,700 and Kasapa c5,200. Areeba's charges for on-net calls are the cheapest in the country.

14. This was the policy introduced in 1994 to liberalise the sector to enable the participation of the private sector in the development of telecom services in the country.

Table 41 provides data on cost of three minutes on-net and off-net calls for both peak and off-peak periods of the mobile telephone operators. Kasapa has the cheapest rates for on-net calls for both peak and off-peak periods. The company charges the same rate for the two periods. Areeba also charges €2700 for three minutes on-net off-peak call, but has a higher rate of €4,320 for calls during peak periods.

**TABLE 41. ICT PRICING: LOCAL CURRENCY**

Mobile call (prepaid)	Areeba	Tigo	One Touch	Kasapa
3 minute off-peak to same network	2,700	3,000	3,000	2,700
3 minute peak to same network	4,320	4,650	4,200	2,700
3 minute off-peak to different network	4,500	6,300	5,700	5,220
3 minute peak to different network	4,500	6,300	5,700	5,220
3 minute off-peak to fixed line	4,500	6,300	5,700	5,220
3 minute peak to fixed line	4,500	6,300	5,700	5,220

## Kenya

*Tim Mwololo Waema*

The Kenya Communications Act (KCA) of 1998 established the National Communication Secretariat (NCS), headed by a Communication Secretary, whose main objective is to advise the government on the adoption of a communication policy, which, among other things is meant to encourage competition in the provision of communication services. The Communications Commission of Kenya (CCK) is an independent regulator whose objectives are to license and regulate telecommunications, radio communication and postal services. Its vision is to “enable access to reliable communications services by all Kenyans”, while its mission is to “ensure that the communications sector contributes to the country’s overall development through efficient and enabling regulation and public participation”.

Historically, it has not been clear which arm of government deals with matters relating to IT or who is responsible for the regulation of the IT sub-sector. However, the new national ICT policy approved in January 2006 recognizes CCK as the regulator of the whole of the ICT sector, including IT and broadcasting. Once this is implemented through requisite changes in the Kenya Communications Act of 1998, there will be clarity on these matters and hopefully there will be increased growth in the ICT sector.

*The CCK regulates the whole of the ICT sector.*

The sector liberalisation as implemented by the CCK has significantly changed the communications sector. A summary of what has been achieved with the liberalisation initiatives is shown in Table 42. The performance of fixed telephone network services is summarised in Table 43.

**TABLE 42. LICENSED OPERATORS<sup>a</sup>**

Type of Operators/Services	Licensed Operators
Fixed line operators	Telkom Kenya Ltd. (a national operator)
	Second national operator (SNO) procurement is on-going
Mobile operators completed <sup>b</sup>	Kencell Communications Ltd.
	Safaricom Ltd.
	Third mobile operator licensing not yet
Internet backbone gateway operators	Telkom Kenya Ltd. (TKL)
	6 licensed
Public data network operators	14
Internet service providers	72 licensed; less than 50% are operational
Internet exchange point providers	2
Regional telecommunications operators	1 licensed – not rolled out any network
Local loop operators	13 licensed
GMPCS service providers	One was gazetted on 3 September 2004 for licensing
Commercial VSAT hub operators	6
Call centres	2
Cyber cafes/Telephone bureaus	90
Postal operators	Postal Corporation of Kenya
Private courier operators	93 licensed
Broadcasting – TV and Radio <sup>c</sup> (up-to-date figures not available)	12 television broadcasters by end of 2003 28 radio broadcasters but only 21 on air as at end 2003

a. Source: Communications Commission of Kenya

b. The licensing of a third mobile operator started in 2002/2003. The licensing has been delayed by a number of factors, including internal wrangling between partners and legal suits. The CCK expects to grant a licence in 2004/2005 and thereafter the operator is expected to begin service rollout.

c. CCK does not license broadcasters – it only allocates the frequencies for approved broadcasters. If the new national ICT policy is implemented, then CCK will be able to license broadcasters.

Mobile telephony was first introduced in Kenya in 1992, and the technology has moved from the initial External Total Access Communications Systems (ETACS) to the second and third generation of Global System for Mobile communications (GSM).



The mobile cellular phone market is currently operating a duopoly:

- SafariCom Limited, a joint venture between TKL owning 60% and Vodafone UK owning 40%;
- Celtel Limited, a joint venture with Celtel International and Vivendi Telecom International.

Safaricom was Kenya's first GSM operator and began offering services in 1997. Subscriber growth, however, did not take off until 2000 when a competing GSM operator was licensed and Vodafone invested in network expansion. Kencell, the predecessor of Celtel, was the first licensed mobile operator and became the second GSM operator in January 2000. Even with this limited liberalisation in the mobile market, the impact has been far-reaching, especially with respect to mobile penetration. Tables 43 and 44 shows the performance of the two operators in this market.

**TABLE 43. SUMMARY OF FIXED TELEPHONE NETWORK PERFORMANCE<sup>a</sup>**

Year	Exchange Capacity	Subscriber Connections	Waiters	Pay-Phones
1999/2000	444,422	313,470	127,169	8,684
2000/2001	445,822	326,282	133,862	9,135
2001/2002	507,652	331,718	108,761	9,618
2002/2003	508,230	328,358	107,938	9,964
2003/2004	531,442	299,255	107,260	9,798
2004/2005	531,804	281,764	85,177	8,967
2005/2006 (Feb. 2006)	513,824	286,729	85,177	8,915

a. Source: Communications Commission of Kenya

**TABLE 44. SUMMARY OF MOBILE TELEPHONE NETWORK PERFORMANCE<sup>a</sup>**

Year	Capacity			Connections		
	Safaricom	Celtel	Total	Safaricom	Celtel	Total
1999/2000	NA <sup>b</sup>	NA	24,000	54,000	60,000	23,757
2000/2001	NA	NA	640,000	325,235	259,896	340,731
2001/2002	NA	NA	1,220,000	728,163	458,959	944,128
2002/2003	1,500,000	NA	2,000,000	1,000,000	590,785	1,590,785
2003/2004	2,935,000	1,000,000	3,935,000	1,627,378	918,779	2,546,157
2004/2005			6,800,000			4,611,970
(Feb. 2006)						5,729,501

a. Source: Communications Commission of Kenya

b. Key: NA – Not Available

### Telecommunication Pricing

The 2004/2005 tariffs (in KSh) for the three main telecommunications operators are shown in Tables 44 and 45. The current conversion rate is 1US\$ = 72 KSh.

**TABLE 45. ICT PRICING: LOCAL CURRENCY (KSH.)<sup>a</sup>**

Fixed-line Calls	Telkom Kenya
3 minute local call	8.35
3 minute national call	36.00
3 minute call to the US	194.40

a. Source: CCK and individual operator web-sites

**TABLE 46. ICT PRICING: LOCAL CURRENCY (KSH.)<sup>a</sup>**

Mobile Calls	Safaricom <sup>b</sup>	Celtel <sup>c</sup>
3 minute off-peak to same network	48	33
3 minute peak to same network	48	96
3 minute off-peak to different network	75	72
3 minute peak to different network	105	117
3 minute off-peak to fixed line	66	72
3 minute peak to fixed line	75	117

a. Source: CCK and individual operator web-sites

b. Jambo tariff used

c. Cotel 35 S plan (tariff) used

## Mozambique

*Francisco Mabila & José Mário Nhabinda*

The national incumbent operator is Telecomunicações de Moçambique (TDM) and was created in 1981 as a result of the split between post and telecommunications. The basic telecommunications network infrastructure is managed and operated by TDM and owned entirely by the state. However, ownership of infrastructure for value added services is open to both the public and private sectors.

The Public Switched Telephony Network (PSTN) infrastructure consists of a national backbone, covering about 79.7% of the country's territory, including all provinces up to the district level. This network is based on a combination of different technologies such as VSAT, wireless loop, copper cable and most recently a marine fibre optic cable along the coast from Maputo up to Beira. The marine cable is expected to reach the remaining coastal cities of Quelimane, Nacala and Pemba by 2007.

Additionally three terrestrial fibre optical links will be completed in the same period, being the first between Manica, Tete and Songo; the second between Quelimane, Cuamba and Lichinga; and the third one between Cuamba, Nampula and Pemba. These projects constitute an important step towards extending infrastructure to support broadband applications all over the country.

**TABLE 47. KEY INDICATORS**

Indicator	
Number of fixed lines	TDM is the only provider of fixed voice, including the basic infrastructure services. The total number of installed telephone lines in 2004 was 69,676.
Number of mobile subscribers	The total number of mobile subscribers in the country is approximately 1,600 million, divided as follows: mCel: 1,100 million, Vodacom: 500,000
Number of Internet Subscribers <sup>a</sup>	TvCabo: 4,500
	Teledata 2,500+
	TDM 500+
	CIUEM 600+
	Vireon 1,500+
	GS Telecom 500
	TropicalNet 1,500+
	Dataserv 300+
	Soluções 300+
	SATCOM 500+
	INTRA 1,000+
	Emil 1,000+
Microsys 300+	
Number of International Voice Gateway Licences	1 (TDM)
Number of International Data Gateway Licences	12+
Number of ISPs	12+

a. There are no official statistics of the number of Internet subscribers, and the ISPs are not keen to provide such information as they regard it as a business sensitive issue. Therefore, the figures presented are rough estimates.

Within the main cities the telephone switches/exchanges are linked via optical fibre networks and copper is used for connecting the end-users to the secondary network. The telephone exchange network is 100% digitalised.

*Mozambique has one of the lowest teledensities in the region.*

15. Source: [www.infopol.gov.mz/simposio/politica/politica.doc](http://www.infopol.gov.mz/simposio/politica/politica.doc)

Mozambique has a teledensity of about 0.46<sup>15</sup>, one of the lowest in the region. TDM's Annual Report (2004) indicates that the total exchange capacity was 131,967 lines, while the number of subscribers was 69,676, against 77,576 in 2003. That represents a 10% decrease. One of the main reasons for this negative growth is the rapid expansion of the mobile market and obviously the limited purchasing power of the majority of the people, especially in the rural areas. The number of leased lines has increased slightly from 1,082 in 2003 to 1,304 in 2004. The majority of the subscribers to this service are corporate entities, such as banks, hotels, travel agencies, etc. Notwithstanding the ongoing privatisation process, TDM is investing heavily in the expansion and modernisation of the telecommunications infrastructure. The Government justifies this position as a way of strengthening the incumbent in preparation for competition in a liberalised market.

### **Broadband Developments**

ISDN service has been available in Mozambique since 2002 but in 2004 it still had only 902 subscribers in total, from which 803 subscriptions are basic, allowing only two channels from the infrastructure and 99 are primary allowing 30 channels. In 2005 TDM introduced CDMA and early this year launched ADSL services, whereby the available speeds vary from 64Kbps to 512Kbps. Broadband Wireless Internet in Maputo was launched in 2004 by one of the major ISPs in Mozambique. However, there are no statistics available about the current number of users of this service.

### **Background on Regulatory Environment**

The Telecommunications Act of 1992 established TDM as the monopoly service provider for basic services, switching and transmission, as well as cellular services. In 1999, mobile services were liberalised and value added services, as well as data communications became open to competition and subject to licensing by the regulatory body, the Instituto Nacional das Comunicações de Moçambique (INCM). There are no restrictions on resale to third parties of TDM circuits as long as they are not used for voice traffic. The act envisaged that TDM would be privatised in two years' time after which the private company would be granted between 3-5 years of exclusivity in preparation for full competition. This period has been fixed for 3 years in a revision to the Act that has been recently approved by the Parliament of Mozambique. Provided that the communication networks are to be used for services other than voice traffic, self-providing is allowed both nationally and internationally, therefore it is possible to establish a wide area network for data communication and VSAT communication links connecting sites in Mozambique and abroad. The first mobile operator to be established was mCel in 1997, as a subsidiary of TDM, and in 2002 the second licence was awarded to Vodacom.

### **Telecommunication Pricing**

Given the fact that not all operators follow the same price structure each operator's price list will be presented separately in Tables 48, 49, 50 and 51.

**TABLE 48. TDM NATIONAL PRICE LIST (INCL. 17% VAT<sup>a</sup>)**

	Description	Initial	Minimum Period	Mt/sec	Mt/Min.
Normal <sup>b</sup>	Fixed to Fixed (National)	1,900	40 s	28	1,680
	Fixed to Mobile	1,900		146	8,760
	Internet	1,900	80 s	14	840
Economy <sup>c</sup>	Fixed to Fixed (National)	1,550	40 s	21	1,260
	Fixed to Mobile	1,550		73	4,380
	Internet	1,550	80 s	6	420
Super	Fixed to Fixed (National)	1,150	40 s	18	1,080
Economy <sup>d</sup>	Fixed to Mobile	1,150		70	4,200
	Internet	1,150	80 s	4	240

a. Source: <http://www.tdm.mz>

b. Monday to Friday from 06:00h -19:00h

c. Monday to Friday from 19:00h - 23:00h; Saturdays, Sundays and public holidays 06:00 - 23:00h

d. From 23:00h - 06h:00h everyday

**TABLE 49. TDM INTERNATIONAL PRICE LIST (INCL. 17% VAT<sup>a</sup>)**

DESTINATION		Initial period 3 minutes	Additional minutes
South Africa, Angola, Botswana, Mauritius, Lesotho, Malawi, Namibia, RD Congo, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	Normal <sup>b</sup>	24,600	8,200
	Economy <sup>c</sup>	21,000	7,000
Portugal, Brazil, Spain, France, UK, Italy, USA	Normal	26,400	8,800
	Economy	21,300	7,100
Germany, Australia, Cape Verde, U.A. Emirates, Guinea, Bissau, Holland, India, Kenya, Lebanon, Nigeria, Pakistan, China, St. Tomé & Príncipe, Sweden, Switzerland, Uganda	Normal	35,700	11,900
	Economy	29,400	9,800
Rest of Africa, Europe, Asia, America, Oceania	Normal	45,300	15,100
	Economy	36,300	12,100
System MARISAT/INMARSAT	Normal	189,690	63,230
	Economy	180,090	60,030

a. Source: <http://www.tdm.mz>

b. Monday to Friday from 06:00h -19:00h

c. Monday to Friday from 19:00h - 23:00h; Saturdays, Sundays and public holidays 06:00 - 23:00h

**TABLE 50. mCel PRICE LIST (INCL. 17% VAT)<sup>a</sup>**

<b>By Minute Charge</b>			
<b>Tariff</b>	<b>mCel to mCel</b>	<b>mCel to fixed</b>	<b>mCel to other Network</b>
Normal <sup>b</sup>	5,850 Mt	8,750 Mt	5,850 Mt
Reduced tariff <sup>c</sup>	4,250 Mt	5,100 Mt	4,250 Mt
Super Reduced tariff <sup>d</sup>	2,750 Mt	3,750 Mt	4,250 Mt

a. Source: <http://www.mcel.co.mz/piggery-tarrifs.html>

b. Monday to Friday, 07:00h-19:00h

c. Monday to Friday, 6:00h-07:00h and 19:00h-24:00h;

Saturdays, Sundays and public holidays, 06:00h-24:00h

d. Everyday, 0:00h-06:00h

**TABLE 51. VODACOM PRICE LIST<sup>a</sup>**

<b>National Calls</b>		
<b>Type of Call</b>	<b>Peak</b>	<b>Off-Peak</b>
Vodacom to Vodacom	5,850 Mt	4,250 Mt
Vodacom to other mobile network	5,850 Mt	4,250 Mt
Vodacom to fixed network	8,750 Mt	5,100 Mt
<b>International Calls</b>		
	<b>Peak</b>	<b>Off-Peak</b>
United States	11,820 Mt	11,820 Mt

a. Source: [http://www.vm.co.mz/pt/pacotes/pre\\_pago\\_vodago/tarifas\\_vodago/tarifas\\_vodago\\_por\\_minuto](http://www.vm.co.mz/pt/pacotes/pre_pago_vodago/tarifas_vodago/tarifas_vodago_por_minuto)

NB: The Calls are charged in periods of one minute. The total amount corresponds to the first minute charge and the following minutes or part thereof. All fees are in Meticaís (MT) and include 17% VAT

## Namibia

*Christoph Stork & Mariama Deen-Swarray*

Namibia's size of 824,000 km<sup>2</sup> and its relatively small population of around 1,9 million has resulted in its telecommunication sector facing numerous challenges in bringing an acceptable service to all its inhabitants. For many years, developments in the telecommunications market have focused on the economically active sector of the community, ie industry, commerce and the upper and middle class of the population. This has resulted in large sections of the population and the majority of rural areas not having access to fixed line telephony. The reasons have, in most cases, been a combination of historical (apartheid) factors and socio-economic factors. It is only since independence that major expansion projects have been started in rural areas.

**TABLE 52. KEY INDICATORS**

	<b>Indicator</b>
Population <sup>a</sup>	2,011,000
Surface sq. km	825,418
Population density per sq. km	2.44
Monthly household income in US\$	455.71
Monthly household income in US\$ implied PPP conversion rate	1,017.64
Mobile operators	1
Fixed Line Operators	1
No of International Voice Gateway Licences	1
No of International Data Gateway Licences	1
Mobile Subscribers <sup>b</sup>	516,000
Number of fixed lines <sup>c</sup>	140,000
Fixed Teledensity	6.96
Mobile Teledensity	25.66
Mobile per sq km	0.63
Fixed lines per sq km	0.17
Fastest mobile Internet access	GPRS

a. ITU estimates based on 2000 Census (ITU database 2006)

b. Source: MTC

c. Source: Telecom Namibia

The low population density and large distances remain the main obstacles to telephone connectivity. The challenges faced by the Namibian telecommunication sector are to:

- Expand services to high revenue earning business and urban customers while also attending to the needs of low revenue earning and rural customers;
- Upgrade the backbone network to prepare for a next generation network (IP telephony etc);
- Have sufficient financial and human resources throughout the abovementioned processes to maintain the existing network and provide a high quality service.

### Background on Regulatory Environment

The Namibian Communications Commission (NCC) was established in April 1992 through the Namibian Communications Commission Act, 1992. Its functions include the licensing of private broadcasters, telecommunication and postal operators, radio spectrum management and other regulatory aspects. Telecom Namibia, created in 1992, is the only fixed line operator providing local, long distance, international and leased line services in Namibia. Telecom Namibia is owned by the Namibia Post and Telecom Holdings (NPTH), which in turn is owned by the State. The Mobile Telecommunications Ltd. (MTC) was awarded a mobile telecommunication licence in 1996. A second mobile licence was awarded to Powercom in 2006 and it is expected that Powercom will be

operational by the end of 2006. The NCC is independent of both Telecom Namibia and MTC but reports to the Ministry of Information and Broadcasting and is fully funded by the government.

*The ICT sector is regulated by two different ministries. The existing regulator is only responsible for the mobile segment.*

The historical development of the regulatory structure in Namibia has resulted in a situation where two ministries are involved in the regulation process. The Ministry of Works, Transport and Communications, as sole shareholder in Telecom Namibia and MTC and former parent to the Department of Posts and Telecommunications (which was both operator and regulator), has an obvious interest in the sector, while the Ministry of Information and Broadcasting is responsible for the present regulatory authority, the Namibian Communications Commission (NCC). NCC is responsible for MTC but not for Telecom Namibia. Telecom Namibia is in fact not regulated but has a performance agreement with the Ministry of Works, Transport and Communications.

The Posts and Telecommunications Act 19 of 1992 makes provision for the regulation of postal and telecommunications services. It stipulates the powers, duties and functions of Telecom Namibia Limited and the Namibia Post Limited. At present, licences are required for all telecom services except for leased lines, telex, and paging. License fees are required for mobile services, cable and satellite television. A mobile telecommunication licence is valid for five years and for cable and satellite services for one year only. Telecom Namibia through this act has exclusive right to provide certain public switched telecommunication services as well as to provide certain telecommunication facilities to other service providers.

### Telecommunication Pricing

Namibia's telephone costs are among the highest in the SADC region, a fact attributed to the monopoly structure of the country's telecommunication market. Namibia has only one fixed line telephony provider and one mobile telephone service provider. Tables 53 and 54 show the cost of a 3 minute call under various categories.

**TABLE 53. FIXED-LINE PRICING: LOCAL CURRENCY**

3 minute local call	N\$1.14
3 minute national call	0 to 100km- N\$1.20; >100km- N\$2.10
3 minute call to the US	Peak: N\$18.00 Off Peak: N\$16.50

**TABLE 54. MOBILE PRICING (PREPAID): LOCAL CURRENCY**

3 minute off-peak to same network	N\$5.64
3 minute peak to same network	N\$7.50
3 minute off-peak to different network	N\$5.64
3 minute peak to different network	N\$7.50
3 minute off-peak to fixed line	N\$7.05
3 minute peak to fixed line	N\$10.05



# Nigeria

*Ike Mowete*

By statute, the Federal Ministry of Communications has responsibility for the broad telecommunications policy in Nigeria, and this responsibility extends over proposing policy options, recommending appropriate legislation to government, implementing government policy, and representing government at international forums. In addition, the ministry has oversight functions over the ICT agencies in the country; namely: the National Broadcasting Commission (NBC) the Nigerian Communications Commission (NCC) and certain activities of the National Information Technology Development Agency (NITDA), which is an organ of the Federal Ministry of Science and Technology. From the regulation point of view, especially where the ICTs are concerned, the main regulatory organ is the NCC, which was established during the military government of General Babangida in 1992 through the promulgation of Decree 75, which vested telecommunications regulatory authority on the commission. In July 2003 and under the democratically elected government of General Obasanjo, the Nigerian Communications Act 2003 (GOVN, 2003) was passed into law. This Act, in addition to reforming the NCC, also created the National Frequency Management Committee, with the main responsibility of managing the country's radio-frequency spectrum resources.

**TABLE 55. TOTAL CONNECTED LINES AND TELEDENSITY  
1999-2005<sup>a</sup>**

OPERATOR	Fixed	Mobile	Total	Teledensity <sup>b</sup>
Dec 1999	473,316	35,000	508,316	0.45
Dec 2000	553,374	35,000	588,374	0.51
Dec 2001	600,321	266,461	866,782	0.73
Dec 2002	702,000	1,569,050	2,271,050	1.89
Dec 2003	872,473	3,149,472	4,021,945	3.35
Dec 2004	1,027,519	9,174,209	10,201,728	8.50
Dec 2005	1,223,258	18,587,000	19,810,258	15.72

a. Source: [www.ncc.gov.ng](http://www.ncc.gov.ng)

b. Teledensity was calculated based on population estimate of 126 million people.

Broadcasting is regulated by the National Broadcasting Commission (NBC), which was established through Decree 38 of 1992 as a corporate body with powers of perpetual succession. According to the provisions of its enabling decree, the NBC's key responsibilities include receiving, processing, and considering applications for the ownership of radio and television stations, including cable TV services.

*Nigeria has the fastest growing mobile market in the world.*

**Key Indicators**

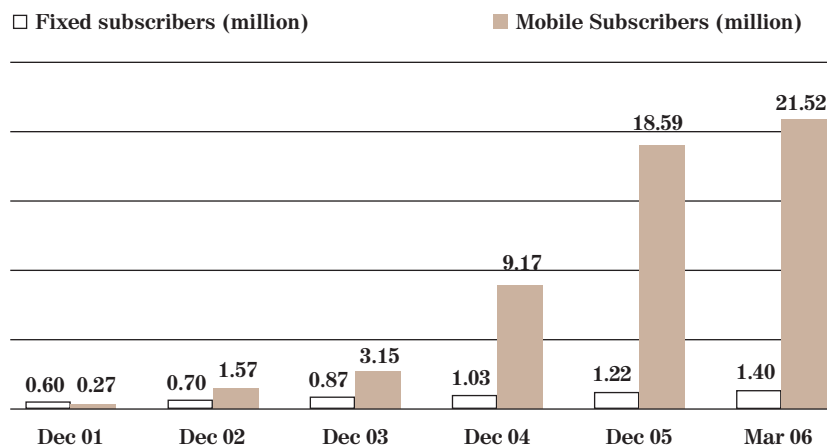
According to an ITU report (NCC, 2005), the telecommunications sector in Nigeria has the fastest growing mobile telecommunications market in the world. Growth in this sector is typified, as shown in Table 55, by a total fixed line capacity, which increased from 473,316 in 1999 to 1,223,258 in 2005. During the same period, connected mobile lines increased from a total of 35,000 in 1999 to 18,587,000 by December 2005. Figure 7 illustrates this rapid growth.

**TABLE 56. TOTAL CONNECTED FIXED LINES (1999-2005)<sup>a</sup>**

	NITEL	PTOs	Total
Dec 1999	450,172	23,144	473,316
Dec 2000	497,019	56,355	553,374
Dec 2001	540,662	59,659	600,321
Dec 2002	555,466	146,534	702,000
Dec 2003	539,405	333,068	872,473
Dec 2004	507,268	520,251	1,027,519
Dec 2005	447,979	775,279	1,223,258

a. Source: [www.ncc.gov.ng](http://www.ncc.gov.ng)

Table 56 displays the trend in fixed connected lines between 1999 and 2005, as distributed between NITEL and the Private Telephone Operators (PTOs).



**FIGURE 7. An illustration of total connected lines and teledensity<sup>a</sup>**

a. Source: [www.ncc.gov.ng](http://www.ncc.gov.ng)

In terms of mobile subscribers, by the end of March 2006, there was a total of about 21.5 million subscribers as against a total of just over a million in 2002.

In addition to these major contributions to the country’s teledensity, there are quite a few other operators, offering mainly fixed wireless services. Table 57 provides a list of licences granted for community telephony services.

The two national carriers (NITEL and GLOBALCOM) have international gateway licenses that will expire in 2022. There are three hundred and thirty one (331) enterprises offering Internet/services in Nigeria, and despite the limitations of poor infrastructure and the high cost of bandwidth, the annual growth rate of internet users is estimated at 130%, which has increased from about 108,000 in 2000 to close to two million in 2004 (NCC 2005). The current estimate is that there were some five million regular internet users by 2005.

*Nigeria has the highest total number of Internet users in Africa.*

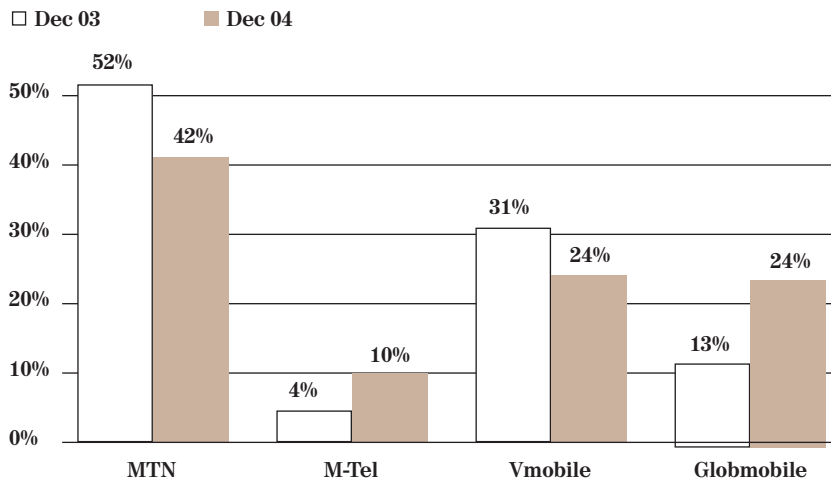


FIGURE 8. Share of the mobile telecommunications between the four operators<sup>a</sup>.

Source: [www.ncc.gov.ng](http://www.ncc.gov.ng)

TABLE 57. COMMUNITY TELEPHONY OPERATORS<sup>a</sup>

Name	Operation	Expiry
1. Integrated Digital Telecommunications Limited, Lagos	01 Jul 1998	30 Jun 2008
2. Goldysis Limited, Lagos	01 Jul 1998	30 Jun 2008
3. Bell & Bell Communications, Bauchi State	01 Oct 1998	30 Sep 2008
4. Tas Systems Limited, Ojo – Lagos	01 Oct 1998	30 Sep 2008
5. WAK Telecommunications Limited, Abuja	01 Oct 1998	30 Sep 2008
6. Digital Telecoms (Nigeria) Limited, Lagos	01 Nov 1998	30 Oct 2008
7. Thorts Limited, Port Harcourt	01 Nov 1998	30 Oct 2008
8. Simpack Telecom Limited, Lagos	01 Nov 1998	30 Oct 2008

a. Source: [www.ncc.gov.ng](http://www.ncc.gov.ng)

### Telecommunication Pricing

Prior to the entrance of multiple telecommunications operators into the sector, telephone subscriptions were either not available or notoriously expensive. In 2000, when the liberalisation of the sector started, the private telephone operators charged as much as ₦100,000 for each subscription, so that very few could afford to subscribe to their services. But by August 2001, the (then) newly licensed mobile operators began operations and it became possible to acquire a mobile phone through off-the-shelf transactions after a few minutes, compared to getting a fixed line, which typically took months. The costs of the mobile subscriptions were much cheaper at ₦20,000. By 2004, the costs of fixed lines had crashed to an average of about ₦10,000, nowadays, mobile starter packs go for as low as ₦500. Tables 58 and 59 display the prevailing call rates for some representative fixed and mobile operators June 2006.

**TABLE 58. CALL TARIFFS IN LOCAL CURRENCY**

Name of Provider/ Cost of Calls <sup>a</sup>	MTN	V- Mobile	M-Tel	Multi-Links (Fixed- Wireless)	21st Century (Fixed)	NITEL (Fixed)
3 minute local call (₦)	144	138	72	12.90	12	13.50
3 minute national call (₦)	144	138	72	19.50	18	19.50
3 minute call to the US (₦)	300	300	117	102	120	117

a. Cost computations are based on per-minute charges as advertised by the operators

When the mobile telephony operators began operations in 2001, call rates were fixed at ₦50 per minute for local calls, irrespective of call destination. This tariff dropped to between ₦25 and ₦35 per minute, and was subject to significant reductions by various tariff-based promotion packages to as low as ₦20 per minute, and in some cases, ₦16 per minute; though after a tariff re-balancing undertaken by the incumbent operator in 2003, tariff increases were recorded in order to allow for a proportionate reduction in costs of international calls, which went from ₦90 to ₦45, for most overseas destinations.

**TABLE 59. MOBILE (PREPAID) CALL TARIFFS  
IN LOCAL CURRENCY**

Name of Provider/ Cost of Calls <sup>a</sup>	MTN	V- Mobile	M-Tel	Multi-Links (Fixed- Wireless)	21st Century (Fixed)	NITEL (Fixed)
3 minute off-peak to same network (R)	138	120	63	12.90	12	13.50
3 minute peak to same network (R)	120	108	57	12.90	12	13.50
3 minute off-peak to different network (R)	144	138	72	19.50	18	19.50
3 minute peak to different network (R)	144	138	72	19.50	18	19.50
3 minute off-peak to fixed line (R)	144	144	72	19.50	18	19.50
3 minute peak to fixed line (R)	144	144	72	19.50	18	19.50

a. Cost computations are based on per-minute charges as advertised by the operators

## South Africa

*Steve Esselaar*

The ICT sector in South Africa has undergone significant change in 2005 and 2006. On 09 December 2005 the Independent Regulatory Authority of South Africa (ICASA) issued the Second Network Operator licence to a consortium consisting of Nexus Connexion, Transtel, Eskom, Communitel, Two Consortium and Tata Group. Tata is the controlling shareholder with 26% of equity. However, the SNO is still not operational, despite rumours that it would be offering services by March 2006. This means that Telkom's effective monopoly has lasted an additional four (and counting) years beyond the end of its exclusivity period in 2002.

The Electronic Communications Act is the next stage in the process of managed liberalisation that the government has undertaken. President Thabo Mbeki signed it on 18 April 2005, though a commencement date has yet to be set. The Act has potentially far-reaching consequences for the ICT sector. The Act's key objective is to "promote convergence in the broadcasting, broadcasting signal distribution and telecommunications sectors". The Act includes a new licensing framework that introduces three new forms of licences:

- Electronic Communications Network Services;
- Broadcasting Services;
- Electronic Communications Services.

The Electronic Communications Network Service Licence is basically an infrastructure licence and includes all types of infrastructure such as fixed line, mobile and power-line. The Broadcasting Service Licence is a single to multi-point broadcasting service. The Electronic Communications Service Licence is essentially an applications licence and would include, for example, applications such as Voice over IP (VOIP).

**TABLE 60. KEY INDICATORS**

Number of fixed lines in the country	Telkom	4,708,000
	SNO	NA
Number of mobile subscribers in the country (separate for each provider)	Vodacom	19,162,000
	MTN	10,235,000
	Cell C	2,900,000
	Virgin Mobile	NA
Number of Internet Subscribers		3,608,932
Number of International Voice & data Gateway Licences		6 licences: Cell C, MTN, Vodacom, Sentech, Telkom, SNO (second network operator)
Number of ISPs		100 to 132

*ICASA Amendment Bill likely to compromise ICASA's independence.*

The signing of the Electronic Communications Act was delayed primarily because it goes hand in hand with the ICASA Amendment Act. The ICASA Act was sent back by President Thabo Mbeki to the National Assembly for consideration because it had been heavily criticised for removing much of ICASA's independence<sup>16</sup> and was feared to be unconstitutional. The ICASA Amendment Bill has been modified and approved by the National Assembly and is now awaiting President Mbeki's signature. The new Amendment Act now requires the National Assembly to approve the Minister of Communication's appointments to the ICASA board. With its history of interfering in ICASA decisions (for example, the now infamous "clarification" of the September 2004 directives by the Minister), ICASA's independence is likely to be further compromised with the introduction of the ICASA Amendment Bill.

A further complication in the ICT sector is the proposed introduction of the Regulation of Interception of Communications and Provision of Communication Related Information Amendment Bill. The bill will require that all mobile phone users must present their identification document and proof of address to their mobile company personally. This will be at huge cost to both mobile companies and users and should slow down mobile penetration.

Outside of the legislative changes in the South African ICT sector, there are two policy areas that have been identified by the DOC. The first is the price of telecommunications, highlighted in a speech by President Thabo Mbeki in his State of the Nation address in 2005. The minister called two

16. Mochiko, T. Bill's delay could hinder ICASA operations, Business Report, May 17 2006.

pricing colloquies in July and October 2005 to address these issues. Spectacularly unsuccessful in their own right, the colloquies prompted the regulator to release a mobile benchmarking document in July 2005. The attention focused on mobile pricing prompted the two major operators, MTN and Vodacom, to introduce price discounting, cutting prices between 5 and 8 pm by between 40 and 50%. Despite egregiously high prices, mobile growth has continued to be high. The mobile operators estimate that 33 million (out of a population of 45 million) South Africans have access to mobile phones. Vodacom reports over 19 million subscribers, MTN over 10 million and Cell C nearly 3 million.

*Pricing colloquies lead to price decreases.*

The second policy focus has been on increasing broadband access. Like the mobile pricing colloquies, this policy focus has also been a spectacular failure. Broadband pricing continues to be amongst the highest in the world. Penetration is low, with Telkom aiming at only one million users by 2010. In her budget speech in May 2006, the minister stated that wireless broadband access was key to the country's socio-economic development. Instrumental to the government's plans in rolling wireless access out is Sentech, the state owned signal distributor. Since South Africa is not lacking wealthy state-owned telecommunications infrastructure providers and broadband penetration is so low, it is difficult to see how another stated owned institution (and one without Telkom, Eskom or Transtel's resources) is going to speed up penetration.

The current stated policy of reducing telecoms pricing and increasing broadband roll-out has not translated into practice. To some extent the Ministerial pricing colloquies and/or the ICASA enquiries into ADSL and mobile pricing appear to have had some impact on bringing the prices of telecoms to the public's attention with subsequent price reduction announcements by mobile operators (though only for a very small window and not across all price levels), and more recently by Telkom with regard to ADSL price cuts. Broadband roll-out remains frustratingly slow with South Africa way behind even poorer performing lower middle-income countries such as Greece, Poland and Turkey (OECD, 2005b). The minister's budget speech reinforces the view that government sees low broadband roll-out as problematic rather than catastrophic. In light of a vague policy environment, a continued belief in state-owned institutions' ability to provide access contrary to all evidence from the last decade in South Africa, and a fast changing and confused legislative environment, it is unlikely that these areas will change in the course of the next year.

*Broadband prices are among the highest in the world.*

### Background on Regulatory Environment

ICASA has been wrecked by controversy in the last few months. Its CEO is currently suspended on charges of fraud and the chairman faces questions around his ability to lead the organisation<sup>17</sup>. Of the eight

*ICASA lost its regulatory grip.*

councillors, five are either in the process of leaving or have left already. In addition, many senior managers have departed, citing the crisis in leadership and an uncertain legislative environment<sup>18</sup>. Of the six general managers, five positions are open and not yet filled.

**TABLE 61. FIXED-LINE PRICING: LOCAL CURRENCY**

	<b>Name of provider</b>	<b>Price</b>
3 minute local call	Telkom	Peak: R1.17, Off-peak: R0.594
3 minute national call	Telkom	Peak: R2.4042, Off-peak: R1.201
3 minute call to the US	Telkom	Peak: R3.60, Off-peak: R2.97

With the introduction of the Electronic Communications Act, there are an estimated 200 regulations that will soon come into effect (some, ludicrously, with specific dates that will probably have passed before the commencement of the Act)<sup>19</sup>. The new licensing environment means that a whole range of new licences will have to be issued. Other legislation such as the Monitoring and Interception Act will also impact on ICASA's resources. With the lack of human capital and the credibility crisis that ICASA is currently experiencing, it faces a daunting task to implement the policy directives of lowering telecommunications costs and improving broadband access.

**TABLE 62. MOBILE (PREPAID) PRICING: LOCAL CURRENCY**

	<b>Vodacom<sup>a</sup></b>	<b>MTN<sup>b</sup></b>	<b>Cell C<sup>c</sup></b>
3 minute off-peak to same network	R3.15	R3.15	R3.15
3 minute peak to same network	R8.97	R8.97	R9.60
3 minute off-peak to different network	R3.90	R3.90	R3.90
3 minute peak to different network	R8.97	R8.97	R10.50
3 minute off-peak to fixed line	R3.15	R3.15	R3.15
minute peak to fixed line	R8.97	R8.97	R9.60

- a. All mobile figures for Vodacom are based on 4U prepaid as of the 10 June 2006 and are not necessarily the cheapest package available.
- b. All mobile figures for MTN are based on Pay as you Go Classic as of the 10 June 2006 and are not necessarily the cheapest package available.
- c. All mobile figures for Cell C are based on Easy Chat per Second as of the 10 June 2006 and are not necessarily the cheapest package available.

17. McCleod, D, Financial Mail, 16 June 2006. Mashile's Mess.

18. Ibid

19. See, for example, the implementation date for carrier pre-selection.



# Tanzania

*Innocent Ngalinda & Beda Mutagahwa*

Tanzania's tele-density is low, with the number of fixed and mobile lines currently standing at 1,2 telephone lines per 100 people (and the number of mobile phone subscribers currently stands at 0.81 per 100 inhabitants. In contrast, the city of Dar es Salaam has 5 fixed lines and 10 mobile phone subscribers per 100 people.

Tanzania's Public Switched Telephone Network (PSTN), using fibre optic, microwave and satellite-based links, is now over 95% digital. This paves the way for allowing the provision of new services enabled by ICT. The coverage of the network infrastructure is limited to urban areas and this lack of telecommunication and other infrastructure in the rural areas remains a basic impediment to the provision of new ICT services.

Tanzania has a liberalised broadcasting sector with a combination of national, regional and local broadcasting operators. There is currently a predominance of imported material and sports coverage, this imbalance is being addressed by both the regulatory authority and the providers of those services.

## Background on Regulatory Environment

The Policy on ICT in Tanzania is a policy framework aiming at addressing the digital divide. It made it possible for "enabling sectors" (such as telecommunications, information, or broadcasting) to work together whereby "enabled sectors" (such as education, health, governance, or agriculture) can become further empowered through the appropriate development and application of ICT. Objectives of the National ICT Policy include:

- Fostering efficient, inter-operable, reliable and sustainable national ICT infrastructure commensurate with grass-root needs and compliant with regional and international standards, with increasing access while reducing cost;
- Encouraging regulatory organs to jointly investigate and respond to the challenges of convergence and newly emerging technologies, while drawing input from the general public and the key stakeholders;
- Establishing mechanisms and participating in addressing new international policy and technical issues raised by ICT's new technologies and services;
- Fostering the evolution of dynamic strategies that will address network security issues;
- Evolving regional Internet development policies and infrastructure;
- Establishing mechanisms that will result in least cost access to bandwidth for institutions or individuals in Tanzania;
- Ensureing all installed ICT infrastructure and capacity are utilised effectively and contribute to resilience and redundancy.

**TABLE 63. KEY INDICATORS**

<b>Number of fixed lines in the country</b>	<b>TTCL (2004)</b>	<b>148,360</b>
Number of mobile subscriber in the country (2004)	ZANTEL	85,000
	MOBITEL	303,000
	VODACOM	1,050,000
	CELTEL	504,000
	<b>TOTAL</b>	<b>1,942,000</b>
Number of ISPs		23

**TABLE 64. FIXED LINE PRICING (IN TSHS)<sup>a</sup>**

	<b>TTCL</b>
3 minute local call	300.00
3 minute national call	450.00
3 minute call to the US	2250.00

a. Prices are VAT exclusive as at 31 May, 2005

**TABLE 65. MOBILE (PREPAID) PRICING (IN TSHS)<sup>a</sup>**

	<b>Celstel</b>	<b>Vodacom</b>	<b>Mobitel</b>	<b>Zantel</b>
3 minute off-peak to same network	744.00	744.00	744.00	558.00
3 minute peak to same network	892.80	892.80	855.60	558.00
3 minute off-peak to different network	1,153.20	1,153.20	818.40	595.20
3 minute peak to different network	1,153.20	1,153.20	1,004.40	892.80
3 minute off-peak to fixed line	1,190.40	1,488.00	1,004.40	1,450.80
3 minute peak to fixed line	1,450.80	1,450.80	1,004.40	2,492.40

a. Prices are VAT exclusive as at 31 May, 2005

## Uganda

*F.F. Tsubira & Ali Ndiwalana*

The sector policy environment was driven by a need to divest what had become a costly, corrupt, and loss-making monopoly parastatal, Uganda Posts and Telecommunication Corporation, in order to provide telecommunication services to support the promotion of direct foreign investment (Shirley et al, 2002). The first policy pronouncement was therefore simply a framework of intent to open up the sector, provide for independent regulation, and promote penetration of services.

The Telecommunications sector in Uganda is governed by the Uganda Communications Act<sup>20</sup> and derived regulations as formulated and gazetted by the Uganda Communications Commission. The Government has been overseeing the sector through the Ministry of Works, Housing and Communications, while the Uganda Communications Commission<sup>21</sup> (UCC), an independent body established in 1998, is mandated to regulate the ICT sector.

Since 1996 when the sector reform started, Uganda's ICT sector<sup>22</sup> has operated under a limited competition regime meant to attract major sector investment. There are two national operators, Mobile Telephone Networks Uganda Ltd (MTN) and Uganda Telecom Ltd (UTL) which have a license to compete in all telecommunication services without geographical limitations, with obligation to interconnect with other operators; provide non-discriminatory services to value-added network service (VANS) providers; and to meet roll-out and quality-of- service (QoS) targets as per their licences.

In 2004 a more holistic approach to sector development was started, bringing on board new policies and proposed laws to deal with the diverse aspects of the sector. These include:

- The National ICT Policy framework;
- The Proposed New Telecommunications Sector Policy;
- Copyright Act, Cap 215;
- Trademarks Act, Cap 217;
- Patents Act, Cap 216.

The National ICT Policy (NICTP) framework is supposed to be the overall guiding framework for the ICT sector in Uganda. It describes how ICTs will integrate with the development plan by supporting and creating

20. Laws of Uganda Cap 106

21. Uganda Communications Commission web-site, [www.ucc.co.ug](http://www.ucc.co.ug)

22. It should be noted that while the broad term is now used to capture the entire sector environment, the focus, certainly up to 2004, was specifically on the telecommunications and the broadcasting sub-sectors. This discussion is specific to the telecommunications sub-sector. Until 2005 when the National ICT Policy Framework was adopted by cabinet, the IT sector has remained largely unregulated and with no specific national guiding policy.

*New ICT Ministry established in 2006.*

efficiency within processes in other sectors. The policy also highlights the ICT sector as an economic sector in its own right. Unfortunately, this has been dogged by tensions and conflicts among the parties concerned, leading to a document that has not had any significant impact, and will indeed be out of date before it is implemented. The document also has gaps in terms of base line; specific and measurable objectives; an implementation master plan (including time-lines and costs); and the related monitoring and evaluation details.

Sector political guidance and regulation have also suffered the consequences of fragmentation of key sector components among different ministries: The Uganda Communications Commission under the Ministry of Works, Housing and Communications; Proposed National Technology Agency under the Ministry of Finance; and the Uganda Broadcasting Council under the Department of Information, Office of the President. A new Ministry for ICT has been recently created (May 2006), underscoring the increased priority government places on ICT, through which political guidance and regulation are expected to be unified.

The Proposed New Telecommunications Policy<sup>23</sup>, once formally adopted, is expected to lead to the full liberalisation of the sector, and greater public investment in infrastructure development through PPPs.

**TABLE 66. ICT SECTOR STATISTICS (SOURCE: UGANDA COMMUNICATIONS COMMISSION, 2006)**

Services	Mar 2004	Mar 2005	Mar 2006
Fixed Telephone Lines	67,234	86,813	107,922
Mobile Cellular Subscribers	872,709	1,235,028	1,937,109
National Teleco Operators	2	2	2
Mobile Cellular Operators	3	3	3
VSAT International Data Gateways	8	8	8
Internet Service Providers	18	18	17
Private FM Radio Stations	125	145	145
Private Television Stations	23	34	34
National Postal Operator	1	1	1
Courier Service Providers	19	20	22
Pay Phones	3,661	5,624	10,925

The new policy is driven by the key elements of Uganda's Poverty Eradication Action Plan, the overall goal being a higher level of human development.

23. See [www.ucc.co.ug](http://www.ucc.co.ug)

**TABLE 67. FIXED-LINE PRICING: LOCAL CURRENCY  
(31 JULY 2006)**

Call type and duration	MTN <sup>a</sup>	UTL	CelTel <sup>b</sup>
3 minute local call <sup>c</sup>	459	375	NA
3 minute national call	459	525	NA
3 minute call to the US	2,310	2,052	NA

- a. MTN Uganda quotes their rates minus VAT and excise duty, both of which have been included to increase their rates by 30%
- b. CelTel Uganda does not provide a fixed line service
- c. Cost of fixed calls (local and national) are based on peak periods, both MTN and UTL do provide cheaper off-peak rates

**TABLE 68. MOBILE (PREPAID) PRICING: LOCAL CURRENCY  
(31 JULY 2006)**

Call type and duration	MTN <sup>a</sup>	UTL	CelTel <sup>b</sup>
3 minute off-peak to same network	663	660	720
3 minute peak to same network	1,307	1,200	1,350
3 minute off-peak to different network	878	1,260	1,050
3 minute peak to different network	1,502	1,500	1,560
3 minute off-peak to fixed line	663	660	720
3 minute peak to fixed line	1,502	990	1,560

- a. MTN Uganda quotes their rates minus VAT and excise duty, both of which have been included to increase their rates by 30%
- b. CelTel Uganda does not provide a fixed line service

## Zambia

### *Sikaaba Mulavu*

The ICT sector in Zambia has experienced high growth over the last decade, particularly in the mobile sector. The number of subscribers for both fixed and cellular phones is currently estimated at 1,585,000 compared with 413,000 in 2004. This drastic increase can be attributed to increased investment, particularly by mobile operators. Although there are still three operators (CelTel, CelZ and MTN, former Telecel), the telecommunication sector continues to grow, with investment targeted towards expanding the installed capacity of the mobile operators. For instance, ZAMTEL, the incumbent national telecom operator, has invested Kwacha 366 billion on infrastructure development in the past three years. The three mobile operators have expanded their network of service provision from the traditional line of rail to rural towns such as Solwezi, Chongwe, Mpongwe, Mansa, Monze, Kasama, Kazungula and Mongu. In the 2005, one of the mobile service providers, CelTel, managed to cover all 72 districts in the country. This is a big achievement

*The ICT sector in Zambia has grown rapidly during the last 10 years.*

considering that most parts of the country are rural and have had no telecommunication services. In the Internet sub-sector, new providers Africonnect and Econnect have come in, bringing the total of ISP to seven. The other ISPs providers are ZAMNET, ZAMTEL, CopperNet, MicroLink, and UUNet. The international gateway is still under the monopoly of the incumbent, ZAMTEL. This issue has been flagged as one of the critical areas that require addressing. There is a fibre optic cable of about 45km installed in the Copperbelt province of Zambia. It is hoped that this network will be expanded to other parts of the country.

At regional level, Zambia is participating in regional initiatives such as the COMTEL project under the Common Market for Eastern and Southern Africa and the EASSY cable project. It is worth noting that the EASSY cable project<sup>24</sup> appears to have gained momentum lately. One can only hope that this will translate into practical reality unlike other earlier and similar initiatives that have to date never gone beyond mere rhetoric.

### **Background on Regulatory Environment**

The Telecommunications sector is regulated under the Telecommunication Act of 1994. The Communications Authority of Zambia (CAZ), the Telecommunications regulatory body in the country was created by this act. In the Act the Post and Telecom Company (PTC) was divided into Zambia Telecom (ZAMTEL) and the Zambia Postal Services (ZAMPOST). CAZ reports to the Ministry of Transport and Communication, which handles policy issues. CAZ is a member of Telecommunication Regulations Association for Southern Africa (TRASA) and Association of Regulators for Information and Communications in Eastern and Southern Africa (ARICEA). CAZ is also a member of International Telecommunication Union (ITU) as a representative of the Zambian government. The telecommunications act also liberalised the telecommunications sector. This eventually saw the emergence of other telecommunications operators (other than the incumbent, ZAMTEL), particularly mobile service providers. Meanwhile, the broadcasting Act was also enacted in 1994. The Act opened up the market for both radio and television broadcasting in the country. The revision of the Act in 2002 led to the formation of an Independent Broadcasting Authority to regulate broadcasting. Currently, there are three TV broadcasting stations in Zambia: the Zambia National Broadcasting Corporation, owned by the state, and two private stations (Trinity Broadcasting Network and Movie TV). Two pay TV companies, DSTV and CASAT, are currently operating in the country.

*Import duties were reduced to promote the ICT sector.*

The country had no ICT policy until November 2005, when the government approved the Information and Communication Technology Policy. The policy will play a significant role in shaping the ICT sector through policy direction. A task force to look into the modalities of implementing the provisions of the document has since been established.

24. The project envisages implementation of a fibre cable on the east coast of Africa

Meanwhile the government has instituted measures aimed at promoting the ICT sector. This includes the removal of duty on imported computers and computer accessories in the 2006 budget. Import duty on mobile phones has also been reduced to 15%. The ISP licence fee was reduced from US\$40,000 to US\$20,000.

**TABLE 69. KEY INDICATORS**

Indicator Description		Number
Number of Fixed Lines		85,000 (As at end of 2005)
Number of Mobile subscribers	CelTel	900,000
	MTN	350,000
	Cel Z	250,000
Number of Internet subscribers (separate for each ISP)	ZAMNET	20,000
	ZAMTEL	17,000
	CopperNet	9,500
	UUNet	3,200
	MicroLink	2,100
	Africonnect	1,200
	Econnect	1,100
International Voice Gateway Licences		1 (ZAMTEL)
Number of ISPs		7
Number of Fixed Line Operators		ZAMTEL
Number of Mobile Operators		3 (ZAMCel, CelTel, MTN)
Number of Internet Users		100,000
Number of TV Stations		3
Number of Radio Stations		18 including community radio stations

**TABLE 70. FIXED-LINE PRICING: LOCAL CURRENCY**

	ZAMTEL
3 minute local call	K3,000.00
3 minute national call	K5,000.00
3 minute call to the US	K21,000.00

**TABLE 71. MOBILE (PREPAID) PRICING: LOCAL CURRENCY**

	CelTel	CellZ	MTN
3 minute off-peak to same network	0.51 Units <sup>a</sup>	K1,800	0.45 Units <sup>b</sup>
3 minute peak to same network	0.84 Units	K3,600	0.84 Units
3 minute off-peak to different network	0.99 Units	K1,800 <sup>c</sup>	0.99 Units
3 minute peak to different network	1.50 Units	K1,800 <sup>d</sup>	1.32 Units
3 minute off-peak to fixed line	0.99 Units	K1,800	0.99 Units
3 minute peak to fixed line	1.50 Units	K3,600	1.32 Units

a. A unit is equivalent to 1 US: 1 US = K4,000

b. Currently charging same rates of 0.19 / minute (no differentiation of off-peak or same/other network. Charges given effective 01 September, 2006

c. No off-peak hour to different networks

d. Same charge for within same network and to other networks

## Zimbabwe

*Marco Machona*

### *Hyper inflation burdens the ICT sector.*

The Zimbabwean economy is in crisis. Inflation is the highest in the world at over 1000%. The country is characterised by political instability, human rights abuses and endemic corruption. Small business, specifically informal small business, has been the victim of several government campaigns to literally destroy the sector. Despite this, there is a relatively dynamic ICT sector in the country. Zimbabwe is characterised by a relatively healthy telecommunications sector and an increasingly overbearing government. The problems facing the Zimbabwean ICT sector are typified by the fact that there is no coherent national ICT policy and by increasing government interference. For example, in 2004, the Government drafted yet another bill to tap into telephone and e-mail messages and compel service providers to install equipment to help the state intercept private communications.

**TABLE 72. KEY INDICATORS<sup>a</sup>**

Population (millions)		13
Literacy rate		90%
Gross national income per capita		470
TVs per 1000 people		30
Radios per 1000 people		362
Telephone main-lines per 1000 people		19
Total Mobiles		379,100 (2003) 925,000 (2005)
Mobile phones per 1000 people		24
Personal computers per 1000 people		12.1
Internet users (thousands)		100
Internet Hosts		4,501 (2003)
Internet Users		500,000 (2002) and to rise to 2,500 000 (2004)
Number of fixed lines		357,000
Number of mobile subscribers	Econet	450,000
	NetOne	250,000
	Telcel(1)	20,000
Number of internet subscribers		46,000
International voice gateway licences		4
International data gateway licences		4
Number of ISP		50
Fixed line operators		1

a. Data was compiled by Marco Machona

Attempts to liberalise the sector have foundered because of an inability to find interested investors. In addition, there is very little data on the current ICT sector performance due to political unrest, fear and lack of



funding. It has become increasingly difficult to seek permission from the Government to interview people without committing a crime. Information that is posted on the Internet is by association linked to the Government and does not truly reflect the status quo. Reliable studies were last held around 2002/3, before the beginning of the land grabs.

### Telecoms Market Overview and Statistics

Zimbabwe's mobile network operators continue to experience brisk business on the local market, despite widespread complaints from subscribers over consistent service inefficiencies and gaps in the infrastructure of the networks. Constantly increasing demand for cellular phone lines and mobile communications in general has forced the country's three mobile network operators to enhance their network carrying capacities to meet the demand.

While the growth of the mobile telecommunications industry has been difficult to trace in financial terms since the sector opened up, the swift nature in which the current crop of network operators has grown is evidence enough of just how lucrative the industry has become.

*Despite difficulties, there is still rising demand for mobiles.*

**TABLE 73. MOBILE OPERATORS<sup>a</sup>**

Operator	Network	Type	DSO <sup>b</sup>
Econet Wireless Ltd.	Econet	GSM 900	p e l
Net One Cellular Ltd.	Net*One Cellular	GSM 900	p e l
Telecel Zimbabwe Ltd.	TELECEL	GSM 900	p e l

a. Source: Global Insight (2003) and LXComm Limited (2000)

b. DSO=Delivery Service Option, p=Premier, e=Economy, l=Least-Cost

Because of the waiting list to obtain a fixed line, the number of Internet subscribers and ISPs has been stagnant over the last few years. In Zimbabwe one needs to know someone to obtain a fixed line. A new trend is that mobile operators are becoming ISPs, setting their own managed small centres and capitalising on their relationship with Post and Telecommunication (PTC) to obtain fixed lines. The regulator (POTRAZ) does not provide all the information. Fixed and mobile operators possess international voice and data gateway licences. A substantial number of ISPs or "bush" ISPs are not officially registered but provide Internet access. A domestic or office fixed line can be extended and easily turned into a commercial Internet business without legal permission. Nobody really knows the actual estimate of Internet subscribers, internet users or even ISPs. Using the official exchange rate; 1 US\$= ZW\$115,000, the average national tariffs have increased to \$0,47 in 2006 from \$0,20 in 2003, an increase of 135%. The cost of mobile communication in Zimbabwe has increased by an average of 33% every year which is also consistent with the cost of ICT in general.

**TABLE 74. OVERVIEW OF IMPLEMENTATION IN INFRASTRUCTURE<sup>a</sup>**

Intervention	Period		Danida (million DKK)		Physical Completion Rate
	Plan	Actual	Plan	Actual	
Public Telephone Project	1995-1999	1995-1999	85.3	49.8	Equipment installed, Institution building incomplete
Rural Roads Project	1996-1999	1996-2000	53.0	50.6	Roads rehabilitated and maintained
RDCU-Support	1997-2000	1997-1999	5.0	5.0	Policies prepared

a. Source: Danish Assistance to Zimbabwe by Til Indhold

**TABLE 75. MOBILE (PREPAID) PRICING: LOCAL CURRENCY<sup>a</sup>**

	TELECEL	NETONE	ECONET
3 minute off-peak to same network	36,000	42,000	33,000
3 minute peak to same network	45,000	45,000	42,000
3 minute off-peak to different network	48,000	48,000	45,000
3 minute peak to different network	48,000	48,000	45,000
3 minute off-peak to fixed line	45,000	45,000	45,000
3 minute peak to fixed line	45,000	45,000	45,000

a. There are two Exchange Rates in Zimbabwe; Official and Black Market Rates.

One US\$ = \$115 000 (Official) = \$220 000 (Black Market), Nov 2005

**TABLE 76. FIXED-LINE PRICING: LOCAL CURRENCY<sup>a</sup>**

	Fixed Lines Only PTC
3 minute local call	45,000.00
3 minute national call	45,000.00
3 minute call to the US	120,000.00

a. There are two Exchange Rates in Zimbabwe; Official and Black Market Rates.

One US\$ = \$115 000 (Official) = \$220 000 (Black Market), Nov 2005

# e-Access & Usage

*Steve Esselar & Christoph Stork*

This section investigates the uses that ICTs are put to by SMEs. The chapter is divided into seven sections: e-Access, Importance of Access, e-Usage, Access and Usage Indices, e-Banking & Transaction, Obstacles to ICT Usage, and conclusions.

## e-Access

Unsurprisingly, there is a large difference between SMEs with mobile compared with fixed line access. On average, 83% of SMEs use a mobile phone for business purposes, compared to 51% for fixed line. What is remarkable is that mobile access is very similar regardless of the sector or the level of formality amongst SMEs. In contrast, there is a huge difference between SMEs with access to fixed line. For example, 24% of SMEs in the informal sector have access to fixed lines compared with 83% of formal SMEs. On mobile phones, the difference is less than 1% and on average 83% of SMEs have access to mobile phones for business purposes, regardless of formality or sector.

*Mobile phone access is very similar and high across all sectors and formality categories.*

**TABLE 77. SHARE OF SMEs HAVING ACCESS TO MOBILE PHONES FOR BUSINESS PURPOSES**

	Informal	Semi-formal	Formal	All
Manufacturing	80.5%	84.5%	85.9%	82.7%
Construction	86.1%	92.0%	94.0%	89.7%
Services	83.4%	82.6%	82.7%	82.9%
All	82.9%	83.3%	83.7%	83.3%

*The service sector has higher access to ICTs than other sectors.*

There is some difference between those informal SMEs with access to fixed telephony. The manufacturing and construction sectors have around the same levels of access, but the services sector has a much higher level of access in the informal sector.

**TABLE 78. SHARE OF SMEs HAVING A FIXED LINE PHONE**

	Informal	Semi-formal	Formal	All
Manufacturing	17.2%	48.3%	83.8%	39.0%
Construction	16.5%	54.0%	80.6%	43.1%
Services	26.5%	60.3%	83.1%	54.8%
All	23.6%	58.1%	83.0%	51.2%

The large difference between formal and informal SMEs in possession of a fax machine provides some insight into the characteristics of ICTs valued by informal SMEs. Clearly the cost of a fax machine is a barrier to possession, though the usefulness of the fax is still high amongst those SMEs that can afford these costs – namely the formal sector. In comparison, hardly any SMEs in the informal sector own a fax machine, while relatively high levels of SMEs in the formal sector (around 58%) own fax machines. The low of fixed line penetration levels, particularly for informal SMEs, is a key reason for the low fax penetration.

**TABLE 79. SHARE OF SMEs HAVING A FAX**

	Informal	Semi-formal	Formal	All
Manufacturing	2.6%	20.3%	61.3%	19.1%
Construction	1.7%	30.0%	67.2%	26.7%
Services	5.3%	26.4%	56.4%	27.7%
All	4.4%	25.5%	57.6%	26.1%

*Large difference exists between formality categories when it comes to access to faxes, computers and Internet.*

The same trend is repeated amongst SMEs owning a computer. However, the difference between formal and informal access is even greater, with 75% of SMEs in the formal sector and 13% of SMEs in the informal sector having access. Computers are more valued than fax machines (ie there are greater levels of penetration) but the difference in access between informal and formal sectors is also greater.

**TABLE 80. SHARE OF SMEs HAVING A COMPUTER**

	Informal	Semi-formal	Formal	All
Manufacturing	5.8%	30.0%	72.5%	25.7%
Construction	4.3%	46.0%	80.6%	35.3%
Services	16.1%	45.6%	74.4%	43.5%
All	12.8%	43.0%	74.5%	39.7%

Computers clearly have a role to play in the business activities of SMEs, ranging from inventory control to word processing. With computers having a relatively strong relationship with the reduction of transaction

costs in the running of a business, it would seem that there would also be a strong relationship between owning a computer and internet access. The fact that the levels of internet access are so much lower than computer penetration means that costs have to be a major factor. On average, 40% of SMEs have access to a computer compared with 19% that have internet access. Again, there is a large difference between the informal and formal SMEs, though expected since the investment costs (in terms of purchasing a computer) are quite high and formal SMEs are more likely to be able to afford it.

*Costs are a major obstacle to increased Internet access.*

**TABLE 81. SHARE OF SMEs HAVING INTERNET ACCESS**

	Informal	Semi-formal	Formal	All
Manufacturing	1.3%	11.6%	41.5%	12.1%
Construction	0.9%	14.0%	44.8%	16.4%
Services	4.2%	19.2%	41.4%	20.5%
All	3.3%	17.7%	41.7%	18.7%

Mail plays an decreasing role in business communications the more informal a SME is, across all sectors.

**TABLE 82. SHARE OF SMEs HAVING ACCESS TO A POST BOX FOR BUSINESS PURPOSES**

	Informal	Semi-formal	Formal	All
Manufacturing	29.0%	52.7%	84.5%	46.6%
Construction	33.0%	64.0%	79.1%	53.0%
Services	36.0%	61.2%	75.6%	56.3%
All	34.1%	59.9%	76.9%	54.3%

## Importance of Access

Tables 83 and 84 shows that nearly 61% of those SMEs that do not have a fixed line phone consider it to be important or very important. The figure of 61% of SMEs that do not have a fixed line phone but consider it important is the second highest figure on the table and is potentially indicative of the pent-up demand for fixed line phones (interesting in itself considering that most commentators write off the potential of fixed line). Of course, this does not take into account the fact that the vast majority have no access to fixed line telephony and so choice between mobile and fixed line is non-existent. The conclusion that can be drawn from this is that there is an unmet demand for fixed line phones, even with their associated high fixed (monthly) cost and lack of availability. Fixed line phones are still cheaper than mobile phones in terms of call charges, however in most countries fixed lines are not available on a prepaid basis and engaging in a post-paid contract poses a cost that can be too high.

*61% of SMEs without a fixed line phone say it would be important or very important for their business.*

**TABLE 83. SMEs THAT STATED THAT A PARTICULAR ICT ITEM IS EITHER IMPORTANT OR VERY IMPORTANT FOR THEIR BUSINESS OPERATION.**

	Don't have it	Have it	All
Fixed Line Phones	61.1%	98.9%	83.0%
Mobiles	70.6%	99.0%	95.6%
Fax	31.2%	95.1%	51.0%
Post Box	26.0%	83.2%	61.0%
Computer	52.3%	97.7%	73.1%
Internet Connection	40.7%	95.5%	53.3%

In addition, it is quite clear that as formality increases, so the percentage of SMEs that possess a fixed line phone is higher.

**TABLE 84. SMEs THAT STATED THAT A PARTICULAR ICT ITEM IS EITHER IMPORTANT OR VERY IMPORTANT FOR THEIR BUSINESS OPERATION.**

	Informal	Semi-formal	Formal	All
Fixed Line Phones	68.4%	88.0%	96.0%	83.0%
Mobiles	96.1%	95.9%	94.7%	95.6%
Fax	27.3%	53.5%	78.2%	51.0%
Post Box	58.1%	66.7%	61.3%	61.0%
Computer	54.4%	78.6%	90.4%	73.1%
Internet Connection	36.8%	56.0%	72.9%	53.3%

*Any fixed line solution must be prepaid if it is to be successful.*

The high access costs associated with fixed line phones, not only financial but also bureaucratic such as providing a utility bill and identification (which formal businesses have less difficulties in providing), also explains the lower penetration of fixed line telephony in spite of pent-up demand. Any solution to mop up this unmet demand must clearly be based on a prepaid model, whether for fixed wireline or fixed wireless. A fact that is often overlooked by network operators is that a passive network member is worth more than a cut-off one. A passive member might still be called. Cutting non-paying postpaid customers off is also linked to costs to operators in terms of bureaucracy and legal matters.

Mobile telephony has taken up some of the slack left by fixed line telephony, with 71% of SMEs without mobiles stating they perceive it as very important, and its importance is nearly unanimous amongst those that do own a mobile. The difference in perception of an ICT's usefulness is lowest in the mobile phone category, leading to the view that mobile is the most highly rated ICT amongst those on offer.

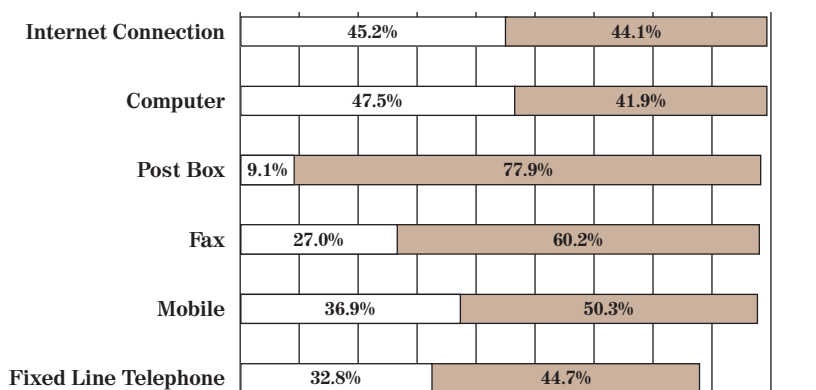
Perceptions of the value of Internet connections follow the trend identified earlier regarding the low rating of Internet connections compared to computer ownership. 52% of SMEs that do not own a computer rate it as important compared with 41% of SMEs that do not have an Internet connection. Amongst those that do own computers and have Internet connections, the perception of their importance is nearly uniform. Clearly more research needs to be done to establish why SMEs that don't have these ICTs rate them so poorly compared to mobile telephony. Anecdotally, possible reasons could be that computer and Internet usage, compared to mobile phone usage is a question of cost and accessibility rather than usefulness. Table 83 and 84 can be read as a list of priorities for what SMEs don't have but would want to have. First is mobile telephony, followed by fixed line, then a computer, followed by an internet connection, then the fax machine and finally the lowly post box.

*Of those SMEs that do not have them, computers are seen as more important than Internet access.*

**TABLE 85. SMEs THAT STATED THAT A PARTICULAR ICT ITEM IS EITHER IMPORTANT OR VERY IMPORTANT FOR THEIR BUSINESS OPERATION**

	Manufacturing	Construction	Services	All
Fixed Line Phones	79.8%	83.7%	83.7%	83.0%
Mobiles	97.1%	99.5%	95.0%	95.6%
Fax	43.4%	55.7%	52.4%	51.0%
Post Box	45.4%	64.2%	77.4%	61.0%
Computer	65.5%	78.5%	74.5%	73.1%
Internet Connection	43.5%	56.0%	55.4%	53.3%

If your business does not have it, why not?  Too Expensive  No Need



**FIGURE 9. Two main reasons why a business does not have an ICT**

*Educating SMEs on the value of computers and Internet access is likely to foster ICT adoption.*

*Informal businesses that do not have mobile phones mainly do not because they cannot afford them.*

Figure 9 displays the two main reasons why SMEs do not have ICTs. Figures 10, 11 and 12 break these figures down by formality. What is striking is the high number of SMEs that do not have an ICT that have no need for them – such as computers and Internet access. There is a need for education about the functionality of computers and Internet connections for business use. Another adoption barrier is clearly skill-levels. Operating computers and accessing the Internet require different skill levels compared to using mobiles or fixed line phones.

When broken down by formality, the importance of mobile phones compared to other forms of ICT access is highlighted. The reason informal businesses do not have mobile phones is mainly because they cannot afford them (50.8%). The same holds for semi-formal SMEs while the majority of formal SMEs state that they do not need them.

Two main reasons why informal SMEs do not possess a certain ICT:

Too Expensive  No Need

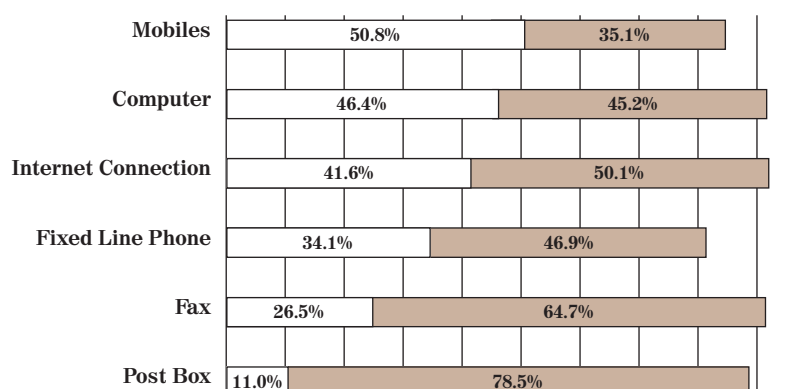


FIGURE 10. Two main reasons why informal businesses do not have ICTs

*High costs of mobile phones impact on the informal sector more than on the formal sector.*

There is a large discrepancy in the perception of the cost of mobile telephony between the formal, semi-formal and informal sectors. In contrast to mainstream expectations, the high costs of mobile phones impact on the informal sector more than on the formal sector, with 51% of informal SMEs that do not own a mobile stating that the reason is that they are too expensive compared with 23% of formal SMEs.

Interestingly, formal businesses that do not have Internet access more often give the reason that it is too expensive than informal and semi-formal ones. For informal businesses, no need is the more prevalent response. The difference between formal and informal SMEs in their perceptions of the usefulness of Internet access underscores the potential for education in this sphere. Over 50% of informal SMEs state that they do not have any need for Internet access and the trend is exactly opposite that of mobile phones, where more formal businesses



say that they do not need one compared with informal businesses. The bottom line is that Internet access is valued poorly compared with computers, mobiles and fixed line phones. What is surprising is that there is a high percentage of SMEs that still believes that fixed line phones have a role to play, in contrast to media coverage propagating the myth of the death of fixed line.

Two main reasons why semi-formal SMEs do not possess a certain ICT:

Too Expensive  No Need

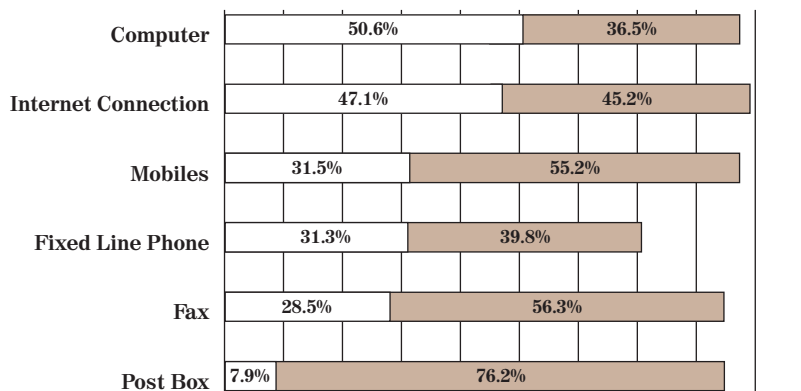


FIGURE 11. Two main reasons why semi-formal businesses do not have ICTs

Two main reasons why formal SMEs do not possess a certain ICT:

Too Expensive  No Need

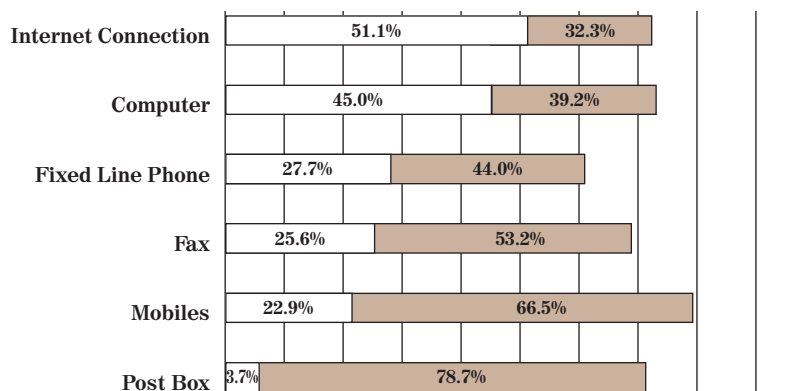


FIGURE 12. Two main reasons why formal businesses do not have ICTs

Fixed line telephony is still valued highly by both the formal and the informal sector, emphasising the possibility that there is un-met demand for fixed line telephony in the informal and semi-formal SME sectors.

*Internet access is valued poorly compared with computers, mobiles and fixed line phones.*

*The cybercafe plays a central role in providing access to ICTs for those SMEs without them.*

While Internet access itself is not valued highly in comparison to other ICTs, the cyber café plays a central role in providing access to those SMEs without access to a range of ICTs. Of those SMEs that do not have access to the internet, 74% use a cybercafe for this purpose. Cyber cafés are also used for fixed line telephone calls, fax services and computer access. In other words, cyber cafés fulfil the role of offices for SMEs, where anything from administrative tasks (photocopying) to sales can be done.

**TABLE 86. SMEs THAT DO NOT HAVE CERTAIN ICTs BUT USE A CYBER CAFÉ FOR ACCESS**

	Informal	Semi-formal	Formal	All
Fixed Line Phones	36.7%	30.4%	22.4%	30.7%
Fax	36.7%	30.4%	22.4%	30.7%
Post Box	9.8%	6.7%	1.4%	7.5%
Computer	36.8%	32.3%	30.6%	34.3%
Internet Connection	74.8%	68.6%	74.2%	72.4%

## e-Usage

*Mobile phones are used more often for keeping in contact with customers and clients compared with any other form of communication.*

The role of mobile phones in maintaining customer relationships is apparent from the survey. Mobile phones are used more often for keeping in contact with customers and clients compared with any other form of communication. 76% of SMEs in the sample used the mobile phone for this purpose compared with 48% using fixed line telephones. The difference is not so dramatic when ordering supplies, something that can be done using a fixed line phone more easily, since this can be an occasional occurrence. Nevertheless, there is a difference with 50% of SMEs using mobile phones compared with 37% using fixed lines, which again speaks to the increasing importance of mobility and the low start-up costs associated with mobile phones.

**TABLE 87. ICT USAGE FOR COMMUNICATING WITH CLIENTS AND CUSTOMERS ALL SMEs**

	Informal	Semi-formal	Formal	All
Fixed Line Phones	22.2%	53.2%	79.2%	48.1%
Mobiles	74.6%	75.7%	78.6%	76.1%
Fax	3.7%	20.3%	50.7%	22.2%
Mail	17.4%	37.5%	59.6%	35.7%
Internet	1.9%	12.0%	33.8%	14.1%

**TABLE 88. ICT USAGE FOR ORDERING SUPPLIES ALL SMEs**

	Informal	Semi-formal	Formal	All
Fixed Line Phones	14.8%	40.2%	63.3%	36.5%
Mobiles	42.7%	52.5%	57.8%	50.0%
Fax	2.2%	16.0%	40.1%	17.3%
Mail	8.3%	23.3%	39.3%	21.7%
Internet	1.2%	6.6%	22.7%	9.0%

Amongst those businesses with fixed line phones, one trend is the lack of distinction between personal and business use amongst informal SMEs. For example, owners use the fixed line phone the most in the informal sector and family, friends and customers use the phone more than in the formal sector. Again, a slightly higher percentage of informal SMEs use the fixed line for private use compared with the formal SMEs.

*The distribution between personal and private use is blurred in the informal sector.*

**TABLE 89. USING IT MOST: FIXED LINE PHONES**

	Informal	Semi-formal	Formal	All
Owners	53.6%	44.6%	35.9%	42.3%
Managers	15.0%	26.2%	29.5%	25.7%
Employees	17.4%	22.5%	29.6%	24.8%
Customers	6.3%	2.9%	1.3%	2.8%
Family and Friends	2.9%	0.4%	0.1%	0.7%

**TABLE 90. USE OF FIXED LINE TELEPHONE (SMEs WITH A FIXED LINE)**

	Informal	Semi-formal	Formal	All
Communicating with clients and customers	89.4%	89.9%	94.5%	92.0%
Ordering Supplies	60.5%	68.7%	75.9%	70.5%
Private use	52.1%	49.6%	48.3%	49.5%

The crossover between business and personal use is also more pronounced between formal and informal SMEs when comparing mobile phone usage with fixed line phone usage. 52% of informal SMEs use the fixed line phone for personal use, compared with 48% of formal SMEs. The mobile phone is particular to the person that owns it, unlike the fixed line phone where customers, employees, owners and family use it.

*Separation between business and private use is less for the informal sector.*

**TABLE 91. USE OF MOBILES (SMEs THAT HAVE MOBILE PHONES)**

	Informal	Semi-formal	Formal	All
Communicating with clients and customers	89.2%	90.1%	93.3%	90.6%
Ordering Supplies	51.4%	62.8%	68.9%	60.0%
Private use	66.7%	66.3%	61.8%	65.2%

*The fixed line phone is more flexible from a business point of view.*

In terms of flexibility, while the mobile phone is more physically mobile (going with the owner wherever they might go), the fixed line phone is more flexible from a business point of view with more people (staff and customers) having access to it. A fixed line can further be used as a fax line or for modem Internet dial-up. This might explain some of the pent-up demand for fixed line phones identified in earlier sections.

**TABLE 92. USING IT MOST: MOBILE**

	Informal	Semi-formal	Formal	All
Owners	87.0%	68.7%	55.5%	72.3%
Managers	7.2%	18.5%	28.1%	16.7%
Employees	4.3%	12.1%	15.7%	10.0%
Customers	1.4%	0.4%	0.6%	0.8%
Family and Friends	0.1%	0.3%	0.1%	0.2%

As with other ICTs, Internet usage follows the trend of increasing usage as formality increases, with the exception of owners and customers. What is interesting is the relatively high usage of Internet by customers in informal businesses, with more customers using it than employees. This indicates that informal businesses that have Internet access use it as a valuable resource to generate additional revenues.

**TABLE 93. USING IT MOST: INTERNET**

	Informal	Semi-formal	Formal	All
Owners	53.2%	46.6%	37.6%	41.4%
Managers	8.5%	18.8%	32.7%	26.9%
Employees	14.9%	18.3%	24.3%	21.8%
Customers	23.4%	15.9%	5.2%	9.6%
Family and Friends	0.0%	0.5%	0.2%	0.3%

*There is potential for SMEs to use the Internet to increase and improve communication with clients and suppliers.*

While semi-formal businesses fit neatly between the informal and formal sector, it is also evidence of the potential for Internet access to improve (and increase) communication with customers. If 78% of formal SMEs use the internet to communicate with customers compared with 67% of semi-formal businesses, then there is potential for an increase of another 11% of semi-formal SMEs to utilise the internet for this purpose.

**TABLE 94. USE OF THE INTERNET (SMEs WITH INTERNET)**

	Informal	Semi-formal	Formal	All
Communicating with clients and customers	47.2%	66.7%	78.3%	72.6%
Ordering Supplies	25.0%	37.6%	52.6%	46.3%
Private use	28.0%	45.1%	42.2%	42.0%

## Access & Usage Indices

Three indices are computed to compare ICT usage across formality categories with each other, the ICT possession Index, the ICT Usage Index and the ICT Usage Intensity Index (see “Access & Usage Indices” on page 9). Mean rank comparisons were used to compare ICT possession, use and usage intensity. The results indicate that formal SMEs possess and use ICT equipment more than semi-formal ones; and semi-formal SMEs more than informal ones. However there is no significant difference when it comes to usage intensity.

*Informal businesses own less and use less ICTs than formal ones.*

**TABLE 95. MEAN RANK COMPARISON FOR ICT USAGE, ICT POSSESSION AND ICT USAGE INTENSITY**

	Formality	N	Mean Rank	Chi-Square	df	Asymp. Sig.
ICT Possession Index	Informal	1,606	1,275.4	1,327.61	2	0.000
	Semi-formal	13,234	211.36			
	Formal	1,126	2,852.24			
	Total	3,966				
ICT Usage Index	Informal	1,606	1,361.15	1,034.54	2	0.000
	Semi-formal	1,234	2,069.24			
	Formal	1,126	2,777.19			
	Total	3,966				
ICT Usage Intensity Index	Informal	1,606	1,989.19	0.64	2	0.726
	Semi-formal	1,234	1,962.71			
	Formal	1,126	1,998.17			
	Total	3,966				

ICT possession and usage increase the further up the formality scale one goes. Of course, this correlates with the assumption that formal businesses have more resources than informal businesses. But this also indicates that policies that increase the cost of ICTs (for example, import duties on ICT equipment) unfairly discriminate against those SMEs that governments across Africa most want to help: the informal sector. The ICT Usage index provides a similar point: that high usage costs such as mobile phone charges, will also discriminate against those that can least afford it, the informal sector.

*Informal businesses are affected most by high ICT costs.*

**TABLE 96. HIGHEST FORMAL EDUCATIONAL LEVEL OF BUSINESS OWNER**

	Informal	Semi-formal	Formal	All
Primary	14.6%	5.0%	2.2%	8.1%
Secondary	47.3%	34.1%	20.6%	35.7%
Tertiary	24.2%	45.4%	63.7%	42.0%
Vocational	10.7%	13.5%	10.2%	11.4%
Self educated	3.2%	2.0%	3.3%	2.8%

Owners of informal businesses are on average less educated compared with owners of semi-formal and formal SMEs. 63% of formal business owners have a formal tertiary education compared to 24% in the informal sector.

**TABLE 97. MAIN REASON TO START THE BUSINESS**

	Informal	Semi-formal	Formal	All
My own business pays more than being employed	32.9%	50.4%	53.6%	44.2%
To make money additional to my salary	11.5%	18.5%	17.1%	15.3%
Otherwise I would have been unemployed	47.6%	19.6%	13.3%	29.2%
Other	8.0%	11.5%	16.0%	11.4%

*Most informal business owners are in business because otherwise they would be unemployed.*

Most informal sector business owners are there as a result of push rather than pull factors. Push factors are when a person has no other choice but to become an entrepreneur because there is no other job available. By comparison, pull factors are when a person sees an opportunity that can be exploited and prefers to be an entrepreneur rather than being employed. 47.6% of informal business owners in that sample started the business because they would otherwise not have found a job, compared with only 13.3% for formal SME owners.

This implies that it is even more critical to address skill levels as part of a strategy to support informal SMEs. In general, apart from financial constraints, it is lack of knowledge of the benefits of ICTs that prevents many informal business operators from using them. So, low levels of education could play a role in the relatively low usage of computers and internet access amongst the informal SMEs, and should be part of a strategy to support SMEs.

## e-Banking & Transactions

*Informal SMEs have already invested in mobile phones; it makes sense to build on that.*

The data have shown that a mobile phone is the preferred ICT tool amongst SMEs, regardless of their formality or sector classification. While it is important to mention that this does not mean that fixed line telephony must be dismissed (particularly as it seems that there is clear demand for it), the realities of SMEs in Africa need to be acknowledged. This survey has expressly attempted to analyse SMEs that fall into both the formal and informal sectors. Informal sector SMEs have already invested in mobile phones and, at current prices, are unlikely to invest in further ICTs such as computers and Internet connections.

This leaves two potential avenues for investigation: firstly, into addressing the causes of high computer and Internet access costs; secondly, into developing applications that can run on the mobile platform and which would be beneficial to SMEs, particularly those in the informal sector. The emphasis is that these two avenues for future investigation are not exclusive, they are quite compatible.

**TABLE 98. ACCESS TO FINANCIAL SERVICES**

	Informal	Semi-formal	Formal	All
Business Savings Account	35.87%	41.90%	40.14%	38.96%
Business Checking Account	16.19%	43.76%	61.28%	37.57%
Private Savings Account used for business purposes	0.06%	0.00%	0.00%	0.03%
Private Checking Account used for business purposes	5.11%	4.94%	4.44%	4.87%
Internet banking	0.19%	1.46%	5.42%	2.07%
Cellphone banking	0.06%	0.24%	1.51%	0.53%
Telephone banking	0.06%	0.24%	1.42%	0.50%
Fax banking	0.00%	0.24%	1.07%	0.38%
Electronic Fund Transfer (EDF)	0.12%	0.41%	2.04%	0.76%

In light of this, one of the key areas where a significant impact could be made on SMEs is access to formal financial services. Table 98 displays the access to various financial services by SMEs. With so many SMEs unbanked, there are advantages in providing them with easier access to formal financial services. Formal financial services are cheaper than informal ones and access to finance is the most frequent business obstacle to SMEs (Ayyagari et al 2003 and Stork et al 2004b).

In contrast, the fact that ATMs are used by a fifth of the SME population in this survey would seem to indicate that it is not unfamiliarity with technology that is at issue but rather the lack of any real offering on the mobile platform.

Another metric emphasising the unbanked nature of this sector is the continued reliance on cash as the major form of exchange. Out of 10 transactions, on average, more than nine are in cash for informal businesses and above eight for semi-formal ones.

*A significant impact could be made in the SME sector by increasing financial access.*

*It is not unfamiliarity with technology that is the cause of low access but the type of mobile banking solutions on offer.*

**TABLE 99. SMS AND ATM CARDS**

	Informal	Semi-formal	Formal	All
Businesses receiving SMSs from banks to inform them about balances, deposits and withdrawals	6.29%	12.24%	21.05%	12.33%
Business using ATM cards for business purposes	15.63%	20.66%	24.42%	19.69%

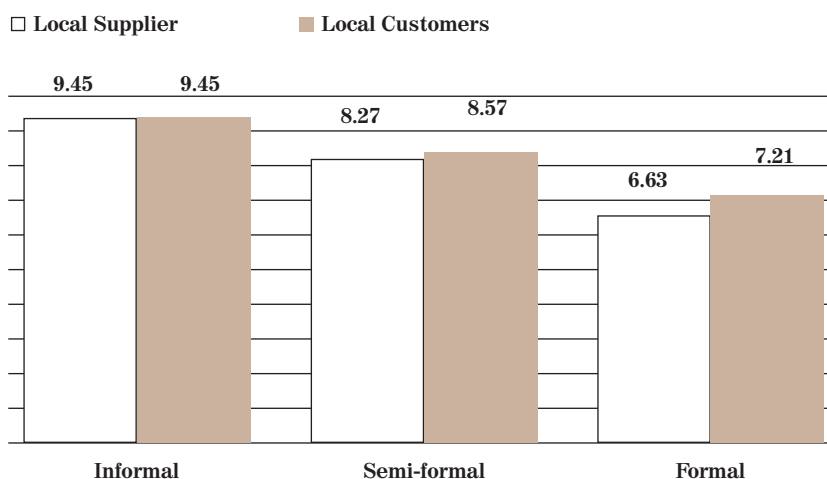


FIGURE 13. Out of 10 transactions, how many are in cash?

*Existing e-Commerce solutions are not viable for SMEs given that so few have access to credit cards.*

44% of the SMEs surveyed state that cash is the most convenient form of exchange, and there seems to be a lack of alternative options to serve this market (eg credit cards, cheques etc). In fact, only 6% of the SMEs surveyed had a corporate credit card which obviously excludes any real possibility for e-commerce and other transaction saving devices.

- Yes, I would be interested in cell-phone banking if it were cheaper and equally safe compared to ATMs and cheques!
- Yes, I would be prepared to change my bank or apply for a bank account in the first place if this bank offered cell-phone banking!

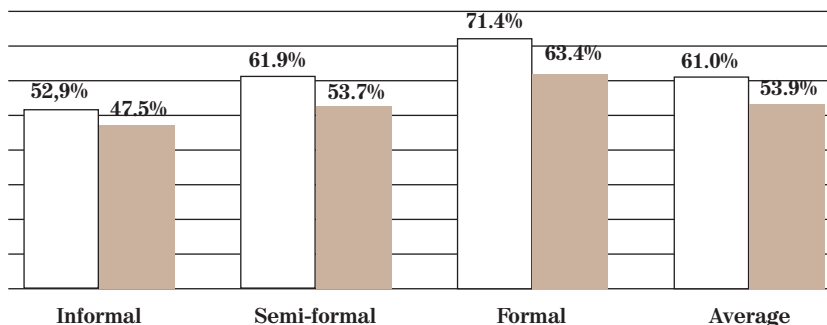


FIGURE 14. Willingness to change bank



55% of SMEs are prepared to change banks if another bank offers a feasible mobile banking solution.

There is strong demand for a banking solution that addresses the needs of the SME sector according to the technology that they currently possess – namely mobile phones. Figure 14 illustrates the size of potential impact – 55% of SMEs state that they would be prepared to change their bank if another offered mobile banking and theirs did not, or would apply for a bank account in the first place.

**TABLE 100. REASONS FOR PREFERRED TRANSACTION FORM WITH LOCAL AND FOREIGN SUPPLIERS**

	Informal	Semi-formal	Formal	All
Faster	6.8%	6.8%	5.3%	6.4%
Most reliable	10.0%	9.2%	8.2%	9.3%
Avoid bank charges	2.4%	3.6%	2.7%	2.9%
Most Convenient	47.6%	41.3%	40.5%	43.6%
Maintaining good relationship with supplier	2.2%	2.7%	3.3%	2.6%
Avoid getting into debt	2.3%	1.4%	1.0%	1.6%
Obligatory	14.6%	12.1%	10.1%	12.5%
Security	6.8%	16.1%	20.3%	13.5%
None	3.1%	4.3%	6.3%	4.4%
Freedom to choose better products	0.7%	1.0%	1.2%	0.9%
Only form of transaction known	3.5%	1.6%	1.1%	2.2%

**TABLE 101. REASONS FOR PREFERRED TRANSACTION FORM WITH LOCAL AND FOREIGN CUSTOMERS**

	Informal	Semi-formal	Formal	All
Faster	7.6%	6.1%	5.0%	6.4%
To be more professional	0.2%	0.7%	0.5%	0.4%
Only form of transaction known	3.5%	3.8%	2.5%	3.3%
Maintaining good customer relationship	7.0%	9.3%	10.3%	8.6%
Most convenient	43.8%	34.6%	32.7%	37.8%
Security	9.1%	14.2%	14.8%	12.3%
Most reliable	13.4%	11.9%	11.3%	12.3%
To prevent misuse of money	0.8%	1.9%	2.1%	1.5%
None	4.0%	7.4%	9.6%	6.6%
Obligatory	7.5%	7.0%	7.6%	7.4%
Avoid getting into debt	3.2%	3.2%	3.5%	3.3%

The key factor SMEs are looking for in a banking solution is convenience followed by security. The complexity of current mobile banking solutions has not addressed this concern.

Of course, the costs of banking and the willingness to change banks are linked. What is noticeable, however, is that the willingness to change accounts or apply for an account is high across the formality index.

*The willingness to change banks is high across formality categories.*

Clearly, the needs of the SME sector are not being met. There is a significant percentage of SMEs without access to formal financial services. At a more basic level, banking information (such as balance enquiries) seems to have been adopted far more successfully than full blown mobile banking. 12% of SMEs have received SMSs from their bank informing them of activity on their account and nearly 20% of SMEs use ATMs for business purposes which is a considerably more expensive alternative to mobile banking or Internet banking in the longer term. The reasons for the lack of mobile banking are manifold and include:

- Lack of any service being offered (outside of South Africa);
- Lack of awareness;
- Lack of formality of SME that would enable access to formal banking services.

*Current mobile banking solutions have too many pre-requisites that prevent up-take.*

The mobile banking solutions that are currently available tend to be only suitable for the formal sector and require a checking account, and sometimes even a credit card. The main two obstacles to expanding these services into the informal sector are:

- Mobile banking platforms are seen as too complicated and time-consuming to use, and this has also limited potential up-take;
- The cost of current mobile banking solutions is too high. Transacting in cash is free for SMEs. Mobile banking would also need to allow free transaction to be a viable alternative to cash. It is not only the SMEs that need to be convinced but also the customers of SMEs.

## Obstacles to ICT Usage

The biggest obstacle to wider ICT usage was given as the high cost of ICTs. This result was relatively uniform across the formality index, with nearly identical results from the informal to the formal sector.

*The biggest obstacle to wider ICT usage is the high cost.*

**TABLE 102. MAIN OBSTACLES TO ICT USAGE**

	Informal	Semi-formal	Formal	All
Network problems / unreliable infrastructure	11.3%	11.7%	10.5%	11.2%
Lack of financial resources	10.6%	4.5%	7.3%	8.0%
Lack of awareness & knowledge of ICTs	10.3%	8.4%	10.5%	9.7%
High cost, too expensive	55.6%	60.8%	58.8%	57.9%
Lack of skills & ICT illiteracy	2.8%	7.4%	6.9%	5.1%
No need	9.5%	7.2%	6.1%	8.0%

This even though the relative burden of ICT costs is higher for informal businesses than it is for formal ones. Table 103 shows the results of the Kruskal-Wallis test for the mean comparisons for the ICT usage costs divided by either total costs or turnover for informal, semi-formal and formal businesses.

**TABLE 103. MEAN RANK COMPARISON**

	Formality	N	Mean Rank	Chi-Square	df	Asymp. Sig.
ICT costs/ total costs	Informal	1,484	1,874.17	7.25	2	0.027
	Semi-formal	1,134	1,836.61			
	Formal	1,041	1,759.84			
	Total	3,659				
ICT costs/ turnover	Informal	1,488	1,900.82	16.2	2	0.000
	Semi-formal	1,135	1,839.46			
	Formal	1,042	1,729.11			
	Total	3,665				

This points to the desperate need to implement regulatory and policy changes with the aim of reducing the cost of ICTs in order to foster economic growth and employment.

*There is a desperate need to implement regulatory and policy changes to reduce the cost of ICTs.*

The second most severe obstacle to ICT adoption was given as network problems and unreliable infrastructure. Given the parlous state of most fixed line networks in Africa, this is easily understood.

The next highest obstacle was the lack of awareness and knowledge of ICTs. In terms of financial resources, informal businesses believed that this was more of a problem compared to semi-formal and a formal business, which makes sense in that informal businesses are much less likely to have access to the banking system for credit.

## Conclusion

It is a truism to say that SMEs have scarce resources. Practically, this means that there is a strong focus on those tools that have an immediate benefit, compared with those with longer-term benefits. The advantage of the mobile phone, for example, is twofold: firstly, it can be used with little training. Secondly, increasing numbers of people have mobile phones (the network externality effect) meaning that it is one of the easiest tools to use to contact customers and suppliers. Other forms of ICTs, such as the fax machine and post box, have a rapidly declining network effect as fewer people continue to use them.

*There is pent-up demand for fixed-line access.*

While the mobile phone is the most popular tool, this survey provides evidence that there is pent-up demand for fixed line phones because of their greater flexibility in business use. Mobile phones are usually used by the owner (of the phone) while the fixed line phone is used by a much greater range of people, from customers to employees.

Computer and Internet access amongst the informal sector is low, and there would seem to be a matrix of causes from low education levels to a lack of financial resources. However, the key role of the cyber café as a central point for business communication should not be ignored. Over a third of SMEs that do not possess fixed lines use cyber cafés for this purpose. Significant numbers of SMEs use cyber cafés for Internet access.

*The role of cybercafes in providing ICT services to SMEs is often underestimated.*

It is this confluence of factors that leads us to recommend a strategy that looks towards creating applications on a mobile platform for SMEs, but at the same time not ignoring the potential effect of greater fixed line access for SMEs. In other words, a multi-pronged strategy towards SME access and usage is needed.

# Performance & ICTs

*Christoph Stork*

There is increasing evidence that ICTs play an important role in allowing businesses to grow faster and become more productive.

The World Bank (2006) published a paper on the role of ICTs in doing business. The paper attempts to measure the impact of ICT usage on sales growth, employment growth, investment rate, re-investment rate, labour productivity and total factor productivity. Data from the World Bank's Investment Climate Survey covering 56 low- and middle-income countries and 26 sectors across the globe was used for that purpose. The paper finds that ICT usage is widespread in businesses across sectors and countries and contributes to growth and productivity of firms.

*The World Bank has established that computer use contributes significantly to profitability.*

Computer use contributed significantly to value added per worker, re-investment rate, profitability and technical efficiency in the analysis. Email usage was additionally also found to contribute significantly to sales growth, and employment. However, the regression results suffer from very low R-squares with the associated risk that results may change if variables are included that explain more of the variation. The World Bank (2006) analysis focuses on formal businesses.

Chowdhury & Wolf (2003) used modified Cobb-Douglas production functions to investigate labour productivity and returns for an SME survey conducted in Tanzania and Kenya. Their main finding is that ICT investments have no significant impact on return performance of SMEs. This result ignores the reality that informal businesses are likely to have less ICT equipment than formal ones (see Table 95 on page 121) yet their profitability is higher as shown in Table 104. Generally, informal businesses operate differently from formal ones.

**TABLE 104. KRUSKAL WALLIS MEAN RANK COMPARISON BY FORMALITY**

Ranks	Formality	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Profit margin: after tax profits divided by turnover	Informal	1,590	2,081.59	26.051	2	0.000
	Semi-formal	1,230	1913.00			
	Formal	1,120	1,875.94			
	Total	3,940				
Labour productivity: Value added divided by full-time employees including owners that manage the business	Informal	1,571	1,546.48	479.988	2	0.000
	Semi-formal	1,223	1,968.59			
	Formal	1,114	2,514.43			
	Total	3,980				
Re-investment rate: Investment divided by fixed assets	Informal	1,559	1,834.37	44.438	2	0.000
	Semi-formal	1,217	1,908.94			
	Formal	1,100	2,118.79			
	Total	3,876				
Profitability: after tax profit divided by total fixed assets	Informal	1,504	2,020.61	70.846	2	0.000
	Semi-formal	1,139	1,761.75			
	Formal	1,048	1,686.98			
	Total	3,691				

*Informal businesses operate at higher gross profit margins than formal businesses.*

Table 104 shows that informal businesses are more profitable in terms of after tax profits (which is the same as pre-tax profits for most informal businesses) divided by the total value of fixed assets. Informal businesses also have significantly higher profit margins (after tax profit divided by turnover). This supports the perception that informal businesses usually operate at a higher gross profit than formal ones. Informal businesses are not bound to minimum wages, can hire casual labour whenever needed, pay almost no tax and operate on less infrastructure than formal businesses. Health regulations often require, for example, separate toilets for males and females in bars or restaurants. Many informal bars (shebeens) in Botswana, South Africa and Namibia do not have any toilets at all. Operating informally often means they pay little or no rent as well.

The results from Kruskal Wallis tests captured in Table 104 also show that formal businesses have a higher labour productivity and re-investment rate than informal businesses. Failure to distinguish informal from formal businesses is likely hence to lead to wrong conclusions.

Also, using production functions might not be an appropriate approach for dealing with SMEs. Production functions assume a certain

relationship between inputs and outputs (Fandel, 2005). Most SMEs are not producing one product or service but more or less anything that makes money. An cyber café might offer tailoring and hair salon services at the same time. A locksmith might also fix cars on the side or do spray painting. It is often difficult to distinguish whether an SME is a manufacturing business, a service or a retail/wholesale business. Wolf (2001) mentions that the focus on production processes might be too narrow and that ICTs might exert their influence through product-quality improvements and improved services. ICTs might additionally help SMEs in the administration of their businesses and enhance procurement and marketing processes. This chapter therefore focuses on SMEs as a business rather than on single production process. The impact of ICT access and usage on the following performance indicators is analysed:

- Turnover / fixed assets; and
- Labour productivity.

*Use of production functions is inappropriate for SMEs where more than one product is often produced or sold.*

## Turnover / Sales Functions

Turnover functions are used to measure the impact of ICTs on the profitability of SMEs. The analysis is carried out separately for SMEs of different formality classifications. A turnover function can be specified as follows:

$$\frac{F_1}{F_A} = \beta_1 + \beta_2 \frac{F_2}{F_A} + \beta_3 \frac{F_3}{F_A} + \beta_4 \frac{F_4}{F_A} + \beta_5 \frac{F_5}{F_A} + \beta_6 \frac{F_6}{F_A} + \varepsilon$$

with

$F_1$  = Turnover (Sales)

$F_2$  = Average water, electricity, cost

$F_3$  = Average cost for your premises in terms of rent, land taxes mortgage payments

$F_4$  = Average business expenditure on telephone calls, fax, postage, Internet

$F_5$  = Average Wage Bill

$F_6$  = Average Direct Cost (raw materials and other intermediary inputs or goods bought for resale)

$F_A$  = Total value of fixed assets

The results from the regression analysis are summarised in Table 105. The R Squared for informal and semi-formal SMEs is above 0.9 and the R Square of formal SMEs 0.77. This indicates that the turnover function in terms of the value of total fixed assets explains the turnover generation quite well across formality categories. The F-tests show significance for all three categories. Going into more detail, there were

*The turnover function has a strong R Squared value and therefore explains turnover generation well.*

*ICT expenditure for informal SMEs was significant.*

problems with multicollinearity for informal and semi-formal SMEs. The Variance Inflation Factor (VIF), which indicates whether a predictor has strong linear relationship with other predictors was considerably greater than 10 for some of the predictors. This is an indication of concern (Meyers, 1990 and Bowerman & O'Connell, 1990). However, this is not surprising since multicollinearity is to be expected for turnover functions, since in production relationships, output over time is a function of the amounts of various quantities of inputs employed (Hill, Griffiths, & Judge, 1997). The predictors with the highest VIF were dropped stepwise until the problem of multicollinearity was resolved.

**TABLE 105. ROBUST REGRESSION RESULTS FOR TURN-OVER EQUATIONS**

	Formal	Semi-Formal	Informal
N	1,0480	1,1390	1,504
R Square	0.7775	0.9199	0.9481
F	74.3900	208.5800	193.5200
Sig.	0.0000	0.0000	0.0000
Mean VIF	1.5000	1.8200	1.1900

For formal SMEs all but water and electricity costs and the constant term were significant. Direct costs, wage bill and ICT expenditure were all significant at 99%. For semi-formal SMEs, direct costs and ICT expenditure were significant and for informal SMEs only ICT expenditure was significant. This is not too surprising since ICT expenditure makes up a higher share of indirect costs for informal businesses (35%) compared to semi-formal (22%) and formal ones (26%).

**TABLE 106. ROBUST REGRESSION RESULTS FORMAL SMEs**

	Unstandardised Coefficients	t	Sig.	VIF
(Constant)	1,123.69	1.13	0.168	
Direct costs	1.89	5.49	0.000	1.25
Wage bill	1.79	5.26	0.000	1.57
ICT usage expenditure	3.93	5.23	0.000	1.19
Rent, land taxes, mortgage payments	7.84	1.81	0.070	1.56
Water & electricity costs	-1.54	-1.38	0.168	1.91

ICTs hence contribute significantly to the turnover generation of SMEs across formality categories.



**TABLE 107. ROBUST REGRESSION RESULTS SEMI-FORMAL SMEs**

	Unstandardised Coefficients	t	Sig.	VIF
(Constant)	201.9	1.84	0.067	
Direct costs	1.62	15.35	0.000	1.12
ICT usage expenditure	2.77	4.79	0.000	2.24
Rent, land taxes, mortgage payments	4.16	1.62	0.105	2.09

**TABLE 108. ROBUST REGRESSION RESULTS INFORMAL SMEs**

	Unstandardised Coefficients	t	Sig.	VIF
(Constant)	112.54	0.66	0.507	
Direct costs	-0.169	-0.30	0.761	1.28
Wage bill	0.695	0.29	0.772	1.28
ICT usage expenditure	51.28	23.77	0.000	1.01

## Labour Productivity

Labour productivity is usually measured by dividing value added of a business by its number of employees (World Bank 2006). For SMEs, however, the best definition is not as clear cut. First is the issue of owners and managers. In formal businesses, owners are less likely to manage the business compared to informal businesses where owners are usually the managers. Table 109 shows that 84% of informal SMEs participating in the survey were managed by owners compared with only 50% of formal ones.

*Formal businesses are more likely to be run by managers than informal businesses which are usually run by owners.*

**TABLE 109. WHO MANAGES THE BUSINESS?**

	Informal	Semi-formal	Formal	All
Owner	83.9%	63.3%	50.3%	67.9%
Full time manager	12.2%	30.1%	45.1%	27.1%
Family member	3.7%	6.4%	4.2%	4.7%
Other	0.3%	0.2%	0.4%	0.3%

Table 110 displays the total number of employees and owners for SMEs by formality category. In order to access labour productivity for informal SMEs one needs therefore to include owners, if they also manage the business. Informal SMEs, on average, had only 2.5 full-time employees and one owner that also manages the business. Ignoring owners that also manage the business would be ignoring nearly a third of the staff complement.

*Owners are included in the definition of employees for informal businesses.*

*The informal sector often relies on family members to complete work, rather than part-time employees.*

Another issue is whether or not to include staff that are employed based on commission or part-time. In the informal sector part-time employees are less common due to the fact that salaries are generally low. Part-time work is often done by family members. Construction and beauty and hair salons use commission-based employees extensively. In the construction sector they are hired for a job only and in some instance paid by number of bricks laid per day. Welders, for example, are often not part of the full-time staff but paid for work completed. In the beauty and hair business commission employees often work more like entrepreneurs themselves in that they have their own clients and pay a commission to the owner of the salon. Others get paid for each client served. Table 111 shows that of all responding SMEs the construction and the hotel and restaurant sectors had the highest number of part-time employees.

**TABLE 110. AVERAGE NUMBER OF EMPLOYEES/OWNERS**

	Informal	Semi-formal	Formal	All
Full-time employees excluding owners	2.50	6.00	10.80	6.00
Part-time employees excluding owners	0.50	1.00	1.60	1.00
On commission	0.50	0.50	0.50	0.50
Male owners	1.04	1.48	1.77	1.38
Female owners	0.40	0.71	0.63	0.56
Full-time + owners that work in business	3.70	7.10	12.00	7.10
All employees + owners that work in business	4.70	8.60	14.00	8.60

**TABLE 111. PART-TIME AND COMMISSION EMPLOYEES BY ISIC CLASSIFICATION**

	Part-time	Commission
D: Manufacturing	1.05	0.68
F: Construction	2.52	0.81
G: Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	0.65	0.26
H: Hotels and restaurants	1.81	0.23
I: Transport, storage and communications	0.58	0.40
J & K: Financial intermediation & real estate, renting and business activities	1.22	0.48
M & N & O: Education, health, social work, other community, social and personal service activities	0.69	0.65

It also shows the last group, consisting of ISIC tabulations M, N & O, (which includes beauty salons), construction and manufacturing had the highest number of employees paid on commission basis. By running tests, the conclusion was reached that using full-time employees, plus owners and family members that run the business, has the highest explanatory power. Labour productivity is therefore defined here as the value added per individual working full time in the business, ie full-time employees and owners and family members that also manage the business full-time. This definition varies from the one used by the World Bank (World Bank, 2006). Value added is defined here as turnover minus direct costs, water, electricity and any expenditure for premises. The equation below expresses labour productivity as a function of average salary (wage bill / full-time employees plus owners plus family members that run the business) and the ICT Usage Index. A positive significant coefficient for a ICT Usage Index would mean that the higher ICT usage can be associated with higher labour productivity.

*The definition of labour productivity therefore includes owners and family members that work in the business full-time.*

$$\frac{V}{E_A} = \beta_1 + \beta_2 \frac{W}{E_A} + \beta_3 ICTP + \varepsilon$$

with

V = Value Added

W = Average Wage Bill

ICTU = ICT Usage Index

E<sub>A</sub> = Full-time employees and owners that manage the business

W/E<sub>A</sub> is hence the average wage and V/E<sub>A</sub> labour productivity. Tables 112 and 113 display the robust regression results for the equation. The difference between informal and formal SMEs has been accounted for by using average wage as part of the independent variables.

**TABLE 112. ROBUST REGRESSION RESULTS FOR LABOUR PRODUCTIVITY EQUATIONS**

N	R Square	F	Sig.	Mean VIF
3908	0.5701	30.69	0.0000	1.02

**TABLE 113. ROBUST REGRESSION RESULTS**

	Unstandardized Coefficients	t	Sig.	VIF
(Constant)	-25785.10	-1.73	0.083	
Average Wage	5.63	7.81	0.000	1.02
ICT Usage Index	7,659.58	2.24	0.025	1.02

*The labour productivity equation is significant in terms of explaining the variation in labour productivity between SMEs.*

Both the ICT Usage Index as well as average salary contribute significantly to explaining the variation in labour productivity among sampled SMEs. When adding 14 dichotomous variables for countries they are all significant except for South Africa. The additional variation, however, is only only 0.5% though (adjusted R-square =0.575).

Specifying a similar equation for the ICT Possession Index shows that the ICT Possession Index equally explains variations in labour productivity (Tables 114 and 115).

$$\frac{V}{E_A} = \beta_1 + \beta_2 \frac{W}{E_A} + \beta_3 ICTP + \varepsilon$$

with

V = Value Added (turnover minus direct costs, water, electricity, premises, rent)

W = Average Wage Bill

ICTP = ICT Possession Index

E<sub>A</sub> = Full-time employees and owners that manage the business

**TABLE 114. ROBUST REGRESSION RESULTS FOR LABOUR PRODUCTIVITY EQUATIONS**

N	R Square	F	Sig.	Mean VIF
3,908	0.5695	32.21	0.0000	1.01

**TABLE 115. ROBUST REGRESSION RESULTS**

	Unstandardized Coefficients	t	Sig.	VIF
(Constant)	-21,836.49	-2.32	0.021	
Average Wage	5.64	7.75	0.000	1.01
ICT Possession Index	12,284.54	2.60	0.009	1.01

The R-square for both equations is above 0.55, indicating that the specified equations account for more than half the variation between SMEs.

## Conclusion

This chapter looked into the impact of ICT access and usage on SMEs. Evidence was presented that the expenditure on ICT usage is contributing significantly to turnover generation and that both ICT usage and possession contribute to higher labour productivity.

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# Conclusions & Recommendations

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The role of SMEs in promoting economic growth and creating employment for the poor is widely accepted. That focus has, up until now, largely ignored the fundamental role that ICTs can play within the SME sector. During the hype of the dot.com bubble in 2000, there was a general perception that the ICT sector itself would create new employment, but ICTs are now supported more for the catalytic role that they can play within different sectors of the economy. Within the SME sector, ICTs play a role in reducing transaction costs (thereby increasing efficiency) and increasing market access. For example, new financial products are increasingly based on mobile or Internet platforms. Finding new products, increasing customer awareness of the products available and sourcing new markets are considerably easier using ICTs.

The results from the SME e-Access & Usage survey demonstrate that the negative impact of ICTs on labour productivity reported in the literature can be attributed to the failure to distinguish between the formal and informal sector. This survey uses a formality index to classify respondent SMEs into informal, semi-formal and formal businesses. Dividing the SME sector into formal, semi-formal and informal categories allows for greater explanatory power. The correlation between ICTs and increased return on investment is no longer obscured by mixing entirely different categories of businesses together. Even so, Africa presents significant challenges to data collection. Key amongst these has been the paucity of data around SMEs. In all of the countries in this survey, except Ethiopia, there is no centralised database on SMEs, making representative surveys impossible. Also, there is a general lack of basic statistics such as how much employment SMEs provide, their average turnover, profitability, life-span and product range. It is that lack of information, particularly with regard to ICTs, that initiated this survey. It has also been motivated, however, by anecdotal evidence that

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## CONCLUSIONS & RECOMMENDATIONS

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ICTs can have a significant impact on how SMEs conduct their business. The main findings of this report are:

- Informal businesses have a higher profitability in terms of fixed assets employed than semi-formal ones, which in turn have a higher profitability than formal businesses. This is understandable, given that increasing formality encumbers a business, ensuring that it must follow certain laws in its operation, with associated costs;
- Informal businesses also operate on a higher profit margin for similar reasons as mentioned above;
- ICTs are significant input factors for both formal and informal SMEs and contribute positively to revenue generation;
- ICT possession and usage is clearly linked to higher labour productivity;
- Mobile phones have overtaken fixed phones and computers as tools in supporting the running of SMEs, given their prevalence and accessibility;
- The main constraint to ICT usage remains high investment and / or usage costs.

This evidence is powerful because it provides a key piece in the puzzle of how to help small businesses to become more sustainable. For any government serious about supporting SMEs, providing affordable access to ICTs must be top of the agenda.

The link between ICTs and profitability, for example, is only one of several strands running through this report. Another is the need for the development of applications for SMEs based on a mobile platform. The reason for this is that acquiring a mobile phone is a relatively low cost proposition for most SMEs (at least in comparison with a computer) and it is already the most accessible ICT in Africa. Applications that are particularly suited towards SMEs that are able to, for example, track inventory, provide cash flow and income statements, need to be developed. Mobiles could also replace cash as the preferred transaction form with customers and suppliers, allowing informal SMEs to build up transaction histories and hence gain access to formal financial services.

With this in mind, well-designed phone- or SMS-based business applications may have a positive impact on the profitability of SMEs. One of the key factors in providing the informal sector access to credit is the lack of cooperation between mobile operators and banks, often as a result of disabling regulation. For example, in many countries, mobile operators are not allowed to be banks, but since mobile operators have access to the informal sector (and therefore mobile transaction records) they could effectively service this sector. Encouraging innovation and cooperation between mobile phone operators and banks on the mobile platform could deliver SMS based business applications (see, for example, Stork, Esselaar, Ndiwalana & Tusubira, 2006).

The survey demonstrated that while mobile phones offer some solutions, access to other ICTs in general, and most importantly to broadband Internet, is important for accessing local and international markets through data-intensive portals. The link between Internet access and reduced transaction costs, for example, is strong (Claessens, et al, 2002). The outcome of this is that betting on mobiles alone would not be enough.

A second strand is the impact on policy and regulatory issues. What this report has really done is to provide a link between policy and action. ICTs, such as mobile phones, computers and internet connections, can only have a transformative role if they are accessible and affordable – a feature that does not exist in virtually all markets included in the survey. For SMEs to fulfil their developmental potential, enabling strategies need to involve more than just limited access to finance. A whole range of initiatives is necessary, of which affordable ICT access is central.

It is critical that governments accept that ICT costs can be reduced by establishing a regulatory environment that facilitates competition in the ICT sector. Lower ICT costs could be achieved through regulatory interventions such as:

- Introducing number portability between mobile phone operators;
- Allowing access to international gateways for mobile operators and Internet Service Providers;
- Introducing innovative approaches to fixed line telephony such as prepaid mechanisms and fixed wireless access;
- Ending monopoly / duopoly control of facilities and regulating essential facilities;
- Increasing competition among existing players by issuing service neutral licences.

Recognition of the role of effective policy and regulation has several implications: firstly, a realisation that there is a dire lack of data, particularly over multiple years, that enables trend-lines to be established. There needs to be a consistent and regular data collection process that allows countries to be compared and progress (or lack of it) to be established. Second, a recognition that affordable ICT access is unlikely to spontaneously occur and that effective regulation is needed to achieve this end. Research and analysis of policy intentions and outcomes and effectiveness of strategies in their specific country context are essential to moving from an ad hoc, ineffectual, short-term decision-making process to building viable information economy societies that make African SMEs globally competitive. This kind of informed policy and effective regulation requires capacity and this in turn requires effective training.

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## CONCLUSIONS & RECOMMENDATIONS

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The conclusions drawn from these findings are straightforward: Governments should be keen to establish competitive ICT markets to lower the cost of access to and usage of ICTs. Effective regulation of markets that are currently dominated by few players and where market failure (in low per capita income countries) is inevitable, is key to achieving that. A policy focus should be to both encourage the development of SME-specific ICT tools and to encourage lower ICT costs. By creating a vibrant and competitive ICT sector, SMEs are enabled to become more competitive and sustainable.



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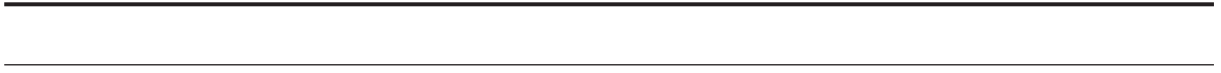
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# List of Abbreviations

Acronym	Description
ACDI-VOCA	Agricultural Cooperatives Development International - Volunteers Oversees Cooperatives Assistance
ADAR	Agribusiness Development Activity in Rwanda
ADSL	Asymmetric Digital Subscriber Line
APEFE	Association pour la Promotion de l'Education et de la Formation a l'Etranger
ARICEA	Association of Regulators for Information and Communications in Eastern and Southern Africa
ART	Telecommunication Regulatory Board (Cameroon)
ASGISA	Accelerated and Shared Growth for South Africa
BDS	Business Development Services
BIDPA	Botswana Institute of Development Policy Analysis
BTA	Botswana Telecommunications Authority
BTC	Botswana Telecommunications Corporation
CAPMER	Centre for the Support to Small and Medium-Sized Enterprises in Rwanda
CAZ	Communications Authority of Zambia
CAGR	Compound Annual Growth Rate
CBN	Central Bank of Nigeria
CBS	Central Bureau of Statistics
CC	Closed Corporation
CCIMA	Chambre de Commerce, d'Industrie, des mines et de l'artisanat
CCK	Communications Commission of Kenya
CDMA	Code division multiple access
CEDA	Citizen Enterprises Development Agency (Botswana)
CEMAC	Central African Economic and Monetary Community
CEMPRE	censo de Empresas (business census)
COMESA	Common Market for Eastern and Southern Africa
CNPS	Caisse Nationale de Prévoyance Sociale
CSAE	Central Statistics Authority Ethiopia
DBA	District Business Associations (Zambia)
DOC	Department of Communications (South Africa)
DRC	Democratic Republic of Kongo
DTI	Department of Trade and Industry (South Africa)

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## LIST OF ABBREVIATIONS

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EBDSN	Ethiopian Business Development Service Network
EFT	Electronic Fund Transfer
EDP	European Union Export Development Programme
ESAP	Economic Structural Adjustment Program (Zimbabwe)
ETC	Ethiopian Telecommunications Corporation
EU	European Union
FFYNDP	First Five Year National Development Plan (Zimbabwe)
FOGAPE	Fonds de Garantie aux Petites Entreprises
FRSP	Federation Rwandaise du Secteur Privé (or RPSF: Rwanda Private Sector Federation)
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GFRCB	Ghana Frequency Registration and Control Board
GICAM	Groupement Interpatronal du Cameroun
GNI	Gross National Income
GOCE	Government of Ethiopia
GOVB	Government of Botswana
GOVG	Government of Ghana
GOVK	Government of Kenya
GOVT	Government of Tanzania
GOVU	Government of Uganda
GSM	Global Mobile System
GT	Ghana Telecom
GTZ	Gesellschaft für technische Zusammenarbeit
ICASA	Independent Regulatory Authority of South Africa
ICT	Information and Communication Technology
IFC	International Finance Corporation
ILO	International Labour Organisation
INCM	Instituto Nacional das Comunicações de Moçambique
INE	Instituto Nacional de Estatística (the National Statistics Bureau - Mozambique)
IP	Internet Protocol
ISDN	Integrated Services Digital Network
ISIC	International Standard Industrial Classification
ISP	Internet Service Provider
ITC	International Trade Centre
ITU	International Telecommunication Union
KCA	Kenya Communications Act
KIST	Kigali Institute of Science and Technology
LEA	Local Enterprise Authority (Botswana)
LPP	Local Procurement Programme (Botswana)
MATEP	USAID Market Access and Trade Enhancement Programme
MCST	Ministry of Communications Science and Technology (Botswana)
MFPEP	Ministry of Finance, Planning and Economic Development
MINICOM	Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperatives
MSE	Micro and Small Enterprises
MSEPU	Uganda, the Micro and Small-Scale Enterprise Policy Unit
MTC	Mobile Telecommunications Ltd. (Namibia)

## LIST OF ABBREVIATIONS

MTCS	Medium-Term Competitiveness Strategy
MTEF	Medium Term Expenditure Framework
MTI	Ministry of Trade and Industry (Namibia)
MTN	Mobile Telephone Networks Uganda Ltd.
NBC	National Broadcasting Commission (Nigeria)
NBSSI	National Board for Small Scale Industries (Ghana)
NCA	National Communications Authority (Ghana)
NCC	Namibian Communications Commission
NCC	Nigerian Communications Commission
NCS	National Communications Secretariat
NCSR	The National Council for Scientific Research (Zambia)
NDC	Namibia Development Corporation
NDP2	National Development Plan 2 (Namibia)
NEPAD	New Partnership for Africa's Development
NEPRU	Namibian Economic Policy Research Unit (Namibia)
NERFUND	National Economic Reconstruction Fund
NGN	Next Generation networks
NGO	Non-Governmental Organisations
NICTP	National ICT Policy (Uganda)
NIDB	Nigerian Industrial Development Bank
NITDA	National Information Technology Development Agency (Nigeria)
NITEL	Nigeria TELEcommunications (PLC)
NPC	National Planning Commission
NPTH	Namibia Post and Telecom Holdings
OECD	Organisation for Economic Co-operation and Development
P&T	Ghana Posts and Telecommunication Corporation
PEA	Poverty Eradication Action Plan
POP	Point of Presence
PPADB	Public Procurement and Asset Disposal Board (Botswana)
PPP	purchasing power parity
PSTN	Public Switched Telephony Network
PTC	Post and Telecom Company (Zambia & Zimbabwe)
PTO	Private Telecommunications Operators
PTY	private limited company
QoS	quality-of- service
RBO	Rwanda Bureau of Standards
RCP	Rural Communication Project (Cameroon)
RIA	Research ICT Africa!
RIPA	Rwanda Investment Promotion Agency (Rwanda)
SADC	Southern African Development Community
SBC	Small Business Council (Botswana)
SEDA	Small Enterprise Development Agency (South Africa)
SEDB	Small Enterprise Development Board (Zambia)
SFYNDP	Second Five Year National Development Plan (Zimbabwe)
SIDO	Small Industries Development Organisation (Zambia)
SIRDC	Scientific and Industrial Research And Development Centre

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## LIST OF ABBREVIATIONS

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SME	Small and Medium Sized Enterprises
SMIEIS	Small and Medium Industries Equity Investment Scheme
SMME	Small, Medium and Micro Sized Enterprises
SNO	Second Network Operator (South Africa)
SNV	Netherlands Development Agency
TBN	Trinity Broadcasting Network (Zambia)
TDAU	Technology Development and Advisory Unit (Zambia)
TDM	Telecomunicações de Moçambique
TIPS	Trade and Industrial Policy Strategies
TKL	Telkom Kenya Ltd
TNDP	Transitional National Development Plan (Zimbabwe)
TRASA	Telecommunication Regulations Association for Southern Africa
UBI	Uganda Business Inquiry
UBR	Uganda Business Register
UCC	Uganda Communications Commission
UK	United Kingdom
UNIDO	United Nations Industrial Development Organization
USA	United States of America
USAID	United States Agency for International Development
UTL	Uganda Telecom Ltd.
VANS	Value-Added Network Services
VAT	Value Added Tax
VIF	Variance Inflation Factor
VOIP	Voice over Internet Protocol
VSAT	Very small aperture terminal
WEF	World Economic Forum
ZABS	Zambia Bureau of Standards
ZAMPOST	Zambia Postal Services
ZAMTEL	Zambia Telecom
ZAMTIE	Zambia Trade and Investment Enhancement Project
ZCSMBA	Zambia Chambers of Small and Medium Business Associations
ZATAC	Zambia Agri-business Technical Assistance Centre
ZIMPREST	Zimbabwe Program for Millennium Economic Recovery Programme

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