

# ZAMBIA

## Chapter 12: Zambia

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### BACKGROUND

#### ICT POLICY AND REGULATORY ENVIRONMENT.

In the past few years, most African countries have undertaken various regulatory and institutional measures aimed at improving the provision of ICT services. These include the liberalisation of the ICT sector, establishment of ICT regulatory bodies and development of ICT policies. In 1991, the ICT sector in Zambia was liberalised. A regulatory authority, referred to as the Communications Authority of Zambia (CAZ), was subsequently established in 1994 in accordance with the Telecommunications Act. The Authority falls under the Ministry of Transport and Communications and has jurisdiction over the telecommunications industry. It also regulates the licensing and use of the radio frequency spectrum in the broadcasting industry for both radio and television transmission. The Independent Broadcasting Authority was established in 2003, with jurisdiction to regulate operations in the broadcasting industry.

**PUBLIC SWITCHED TELECOMMUNICATIONS NETWORK (PSTN).** Zamtel, the state-owned telecommunications company, is the only licensed operator allowed to provide PSTN services. The coverage includes all districts except Kaputa and Sesheke, in the northern and western parts of the country, which are not connected to the network. The network uses a domestic satellite system. The country has a 24-core 520km optical fibre backbone on the Copperbelt covering all mining towns, and a 45km optical fibre cable between Lusaka and Kafue. By the time of the survey (2004), there were more than 96,000 main lines in operation and the telephone density was just under 1%.

**MOBILE COMMUNICATIONS.** There are three operators in the cellular market using GSM technology.

#### National Indicators


Country	Zambia
Surface Area	752,617 sq km
Population density	13.00 per sq km
Total Population	10,757,192
Male Population	5,280,267
Female Population	5,476,925
Growth rate (Between 1990 - 2000)	2.4
Percentage aged 0-4:	15.2
Percentage aged 5-14:	30.6
Percentage aged 15-24:	21.4
Percentage aged 25-60:	28.6
Percentage aged 60-over:	4.2
Literacy rate	72.8%
GDP at current prices (ZMK billion)	16,260.4 (2002)
Per capita GDP at current prices (ZMK '000)	1,505 (2002)
Average Exchange rate	4780 (2004)
Currency	Zambian Kwacha (ZMK)

Source: Central Statistics November 2004 - Living Conditions Monitoring and Survey Report 2002/2003

Celstel is a subsidiary of MSI international. Telecel Zambia is a subsidiary of Telecel International Ltd, a US-based cellular telecommunication group. Zamtel, the incumbent national telecommunications company, owns Cell Z.

Services provided include standard voice and value-added services, such as SMS and voicemail. Currently, the network coverage includes all nine provinces. However, not all operators cover all the provinces, and coverage is mainly along the railway line (from Livingstone to the Congolese border in the Copperbelt) and in provincial capitals. In most rural areas, network coverage for mobile phones is very poor, and is completely non-existent in some areas. There is little sharing of capacity, as individual operators mostly have their own infrastructure, including international satellite connections.

There has been a dramatic increase in the use of mobile phones in the country. According to the latest (2004) central statistics report, there are around 420,000 cellular subscribers in Zambia, as opposed to 270,000 subscribers in 2002. This can be attributed



partly to the emergence of Cell Z in 2003. About 99% of mobile phone users are pre-paid.

**INTERNET SERVICE PROVIDERS (ISPs).** There are six ISPs in the country. The first, Zamnet, was established in 1994. The others are Zamtel Online, Coppernet, UUnet, Microlink and Celtel. Combined, they have almost 12,000 subscribers. Although there are no legal restrictions on new ISPs, licensing fees are prohibitive, and the regulator has limited foreign shareholdings in ISPs and similar value-added licenses. For most Zambians, inadequate financing for such ventures has negated the benefits of the shareholding requirement (Computer Society of Zambia (CSZ), 2004).

The Internet market in Zambia is still developing, with around 45,000 Internet users. However, the potential for rapid growth is undermined by inadequate telecommunications infrastructure, poor telephone accessibility and high access costs.

Internet cafés and business bureaus offer telephone and Internet access in major urban centres and a few rural towns. In 2004, there were about 400 licensed telecentres across the country. Most of these are along the main railway line, due to the relatively good telecommunications infrastructure, low operation costs and high number of potential users. The limited coverage and usage of such business services is an indication of low ICT penetration levels in the country. However, due to insufficient data, it is difficult to estimate Internet usage revenues in relation to other services such as telephone and fax.

Utilisation of VoIP is currently very limited, with very few companies currently using it on their intranets. There is no legislation pertaining to VoIP in Zambia.

**PRICING.** At the wholesale and retail level, telecommunications prices in Zambia remain high. There is

little sharing of capacity, and interconnection fees are exorbitant: US\$0.60 per minute, according to the ICT Survey undertaken in November 2002. The cost of accessing the Internet for an hour is around ZMK9,000 (US\$2). This certainly has a big impact on the utilisation of ICT services, considering low household incomes.

**POLICY DEVELOPMENTS.** Current policy developments in the ICT sector include the preparation of the Cyber Bill, which was approved by Cabinet in 2004 but has not been promulgated. The bill addresses matters pertaining to issues like Internet security, privacy, data protection, digital frauds and hacking controls. The final draft of the national ICT policy has since been produced, spearheaded by the Ministry of Communications and Transport. The draft policy underwent an extensive consultative process and efforts to enact legislation to accommodate the new policy are already under way.

#### ACCESS AND USAGE STUDY

**SECTOR PERFORMANCE REVIEW.** In 2003, a review of the sector conducted by RIA<sup>1</sup> indicated that while some efforts to improve the supply side had been successful at the national level, such as mobile and Internet provisioning in the urban areas, the lack of a reliable backbone across the country and even in Lusaka, together with the high price of telecommunications, were inhibiting the achievement of national goals of universal access (RIA<sup>1</sup> 2003). To ascertain the impact of the above developments, a baseline study to determine demand for ICT services was undertaken in October 2004 as part of a wider continental demand survey.

**NATIONAL HOUSEHOLD SURVEY.** The study took the form of a national household and individual user survey, and focused on fixed lines, mobile phones, payphones and Internet services. It aimed to analyse the access and usage patterns of services delivered by operators in response to policy and regulatory

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frameworks assessed in the sector performance review. The survey was conducted in 45 enumeration areas located in six of the nine provinces: Lusaka, Central, Southern, Eastern, Copperbelt and Northern provinces. To reflect the diversity of access and usage, these areas were further categorised into major urban or metropolitan, other urban and rural areas.

**FOCUS GROUPS.** For the qualitative analysis, a series of focused interviews was undertaken amongst a selected group of persons from different spatial areas across the country. The survey targeted a population of eight focus groups drawn from three provinces, namely Lusaka, Copperbelt and Central provinces. The sample of respondents selected was drawn from a sample of enumerator areas (EAs) that were previously used for the 2004 quantitative survey. The groups were identified by demographic and usage criteria and had representation from the youth, men and women and Internet and non-Internet users.

The combined results of these studies began to explain the reasons (and dynamics) influencing decision-making behind the adoption of ICTs and how usage patterns of different communications technologies develop and change over time. This allows

a broader assessment of how technology impacts on other aspects of peoples' lives, both from a social and economic perspective.

**PUBLIC ACCESS PHONES.** Zambia has public payphones that are owned by the incumbent, Zamtel, and use tokens. There are also community payphones (Celtel) and mobile phones in private kiosks, Internet cafés and business centres. These are all referred to as public payphones, as they can be accessed and used by anybody at a fee.

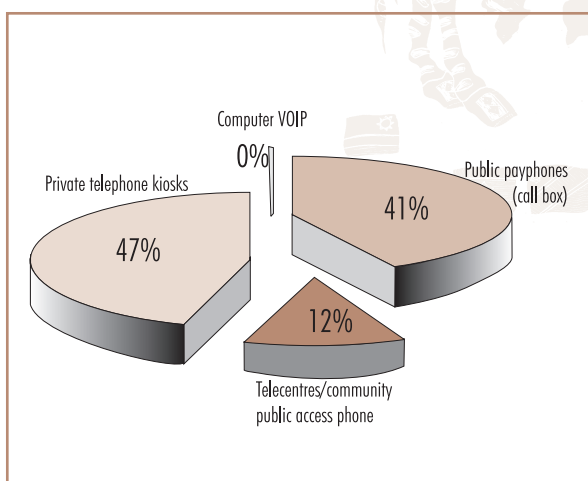
The most widely available type of public payphone is the private telephone kiosk, which accounts for 47% of public phone usage. The public telephones provided by Zamtel account for 41% of usage, whilst telecentres account for the remaining 12%.

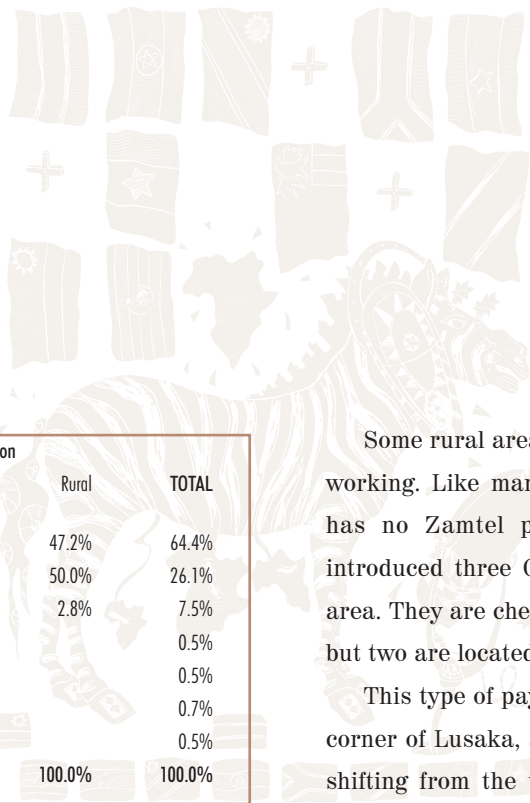
The high usage of private telephone kiosks is due mainly to proximity and the fact that phones in private telephone kiosks are always working, unlike public payphones and community public access phones, which are frequently out of order. Most private kiosks also have access to all three mobile operators, giving the customer the option of using the most cost-effective service by avoiding cross-networking.

**ACCESSIBILITY.** In rural areas, people have to walk long distances – between 21 and 40 minutes by foot – to reach a payphone. This inhibits accessibility, and means that in most cases persons only make the trip to phones when there is an urgent need. The situation in major urban and other urban areas is different, as the majority of people take no more than 20 minutes to reach the nearest payphone.

**EXPENDITURE.** On average, people spend ZMK 15,746.80 (US\$3.26; US\$ PPP 7.20) per month on public phones. This shows a relatively low expenditure on payphones. This can be attributed to low incomes amongst those using payphones, since most people in high-income brackets can afford their own mobile phones

Figure 12.1: Access to public phones





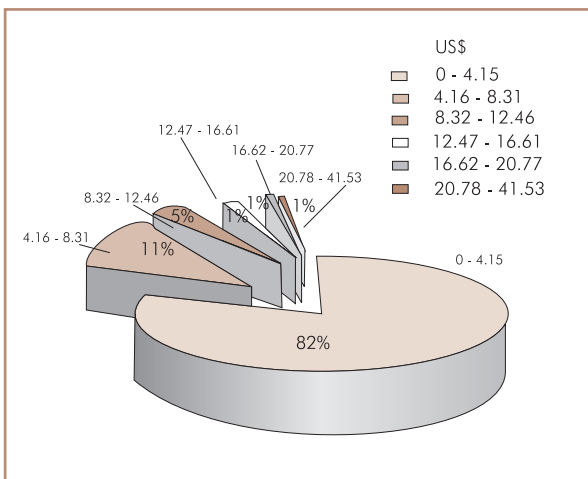
Minutes	Survey Location			TOTAL
	Major towns	Other urban	Rural	
0- 20	65.0%	70.4%	47.2%	64.4%
21- 40	24.9%	19.7%	50.0%	26.1%
41- 60	8.4%	5.6%	2.8%	7.5%
61- 80	0.3%	1.4%		0.5%
81-100	0.3%	1.4%		0.5%
101-200	0.9%			0.7%
201-300	0.3%	1.4%		0.5%
	100.0%	100.0%	100.0%	100.0%

Figure 12.2: Time taken to reach nearest public payphones (in minutes)

and landlines and therefore only need payphones under exceptional circumstances.

What emerged from the focus groups was that people use public phones when they have little or no talk time on their phones, when they want to ring another network, or if they do not have access to any phone at the office or at home. Focus groups outside the metropolitan areas complained of telephone booths being too far and few. The choice between public phones (Zamtel payphones) and mobile payphones is influenced by distance and the network to be called, when a home phone is not functioning or when anonymity is important.

Figure 12.3: Expenditure per month on public phones (Kwacha)



Some rural areas have infrastructure which is not working. Like many other rural areas, Nampundwe has no Zamtel public payphone. Celtel recently introduced three GSM community payphones to the area. They are cheaper than other mobile payphones, but two are located in a noisy place.

This type of payphone has spread almost to every corner of Lusaka, and most of the private kiosks are shifting from the use of ordinary cellphones to the community payphones. The kiosk operators say the new payphone has a number of advantages in that the rates are lower, it is portable and easy to install, and a client cannot run away with a handset.

Most professionals and workers only use payphones occasionally, despite them being relatively cheap. One respondent said he pays as little as K1,500 (US\$0.32) to make a call. The reason for not using payphones regularly is that they either have mobile phones, access to office phones or both.

In Kawama, people do not use Zamtel payphones, which were all vandalised, but they use the private public kiosks in the neighbourhood, where they pay about K2,500 (US\$0.53) per minute. Fixed public phones are not available in Kawama, and the citizens depend on Cell Z cellphones at the private kiosks. If one wants to use a public payphone, which is a landline, they have to travel to Ndola town, about 15km away. This is not economical unless one has other business in town.

Munali has a number of public phones, both fixed and mobile. Public fixed phones are relatively cheap (costing about K1,500 per token) and are used even by those with mobile phones when funds are low. The community payphones are now widely used in the area, mainly because they are cheap.

In all enumerator areas in which focus groups were conducted, the amount paid (charge), the

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proximity and location of the phone, and the network one would use were prominent factors regarding the choice of payphones.

**PRIVACY.** Many youthful respondents cited a lack of privacy as an inhibitor to using public phone booths. There are generally a number of people standing in close proximity, and public cellphone operators stand nearby to prevent users from running off with their handsets.

**SAFETY.** Security at most public payphones is seen to be a problem at night. Despite being safer during the day, people say they need to hide their valuables. Security is not seen as an issue in rural areas.

**HOUSEHOLD PHONES.** The survey confirmed that home phones are predominantly fixed lines, with 98.4% of home phones being PSTN lines and 1.6% either radio or mobile phones. Of these, a relatively high 78.3% are in working order.

The waiting time for fixed lines is around two months. The rate of acquisition of fixed telephone lines has decreased, and this is attributed to the increased usage of mobile phones and very small aperture terminal (VSAT) technology for Internet purposes. The substitution of fixed phones by mobile phones in 1.2% of households is a new phenomenon that will be interesting to track in future. This could be because some mobile phone providers, in particular Celtel, have relaxed credit periods (calling/receiving windows), making cellphones more feasible as household phones.

**AVAILABILITY.** The fixed line network does not cover some of the rural areas. However, even if lines were available and affordable, few rural households would consider applying for a line. This could partly be due to the fact that they have done without for so many years that they do not see the need. However, if lines were made available, people made aware of the

Amounts US \$	Survey location		
	Major towns	Other Urban	Rural
0.1-51.9	36.7	46.3	64.7
51.9-103.8	22.3	23.3	14.3
103.9-155.8	9.4	16.3	7.1
155.9-207.7	12.8	9.1	8.5
207.8-259.6	2.4	1.4	0.4
259.7-311.5	1.8	0.0	0.0
311.6-363.4	2.9	1.2	1.8
363.5-415.4	11.7	2.4	3.1
<b>Total</b>	<b>1742</b>	<b>458</b>	<b>272</b>

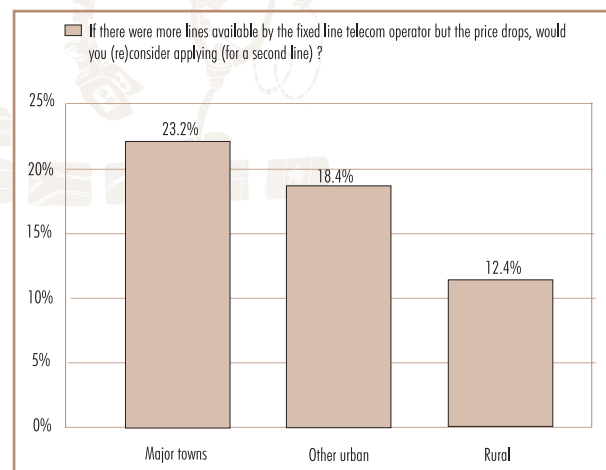
Figure 12.4: Monthly earnings per household member

benefits of such services, and they were affordable, it is highly likely that phone usage would increase.

**AFFORDABILITY.** The average income for a household in rural areas is ZMK291,484.70 (US\$60.39; US\$ PPP 133.21) per annum, whilst the average cost of a fixed line is ZMK58,290.16 (US\$12.11). Taking into account the fact that there are other essential requirements such as health and education, it may be noted that this cost, though seemingly low, may be prohibitive.

**QUALITY OF NETWORK.** Respondents generally seem satisfied with the quality of their service. Just

Figure 12.5: Affordability





over 36% of those interviewed said line clarity was very good, whilst 1.9% indicated that they had very poor service in terms of line clarity. Some 1.4% indicated that the current service in terms of dropped calls was very poor, whilst 29.1% said they had no problems with dropped calls.

**BILLING.** Most of the fixed phones are on monthly billing systems. However, Zamtel is in the process of implementing a pre-paid system. In terms of expenditure, an average of K58,290.16 (US\$12.08; US\$ PPP 26.64) is spent on household phones per month. On average, 32.9% indicated that the billing services for the phones were accurate.

The households whose phones were disconnected say this is due to very high bills, and suggest that these bills are mostly incorrect. They say they know how to reduce costs on household phones by calling during off-peak hours and avoiding calling mobile phones from a landline. Furthermore, as a cost-saving initiative, most landlines are mostly used for receiving calls. This is particularly prevalent in urban areas, where people have mobile phones that they can use to make calls.

**BRIBERY/CORRUPTION.** Nobody admitted to having bribed anybody to obtain a fixed line or any other services. It is probable that this happens, but people not likely to admit to it. This is reinforced by the fact that most respondents acknowledged that they had problems in obtaining fixed lines (some had to wait for as long as five years), which certainly creates the conditions under which bribery becomes one way of securing scarce resources.

**USAGE.** Neighbours' fixed phones are only used when there is a pressing need. It is the elderly who normally ask the neighbours to make or receive a call. Children are not allowed to do this unless there is an emergency and there are no adults home. Many professionals indicated that the Zambian culture does not warrant

charging the neighbours for the use of their phone. However, some respondents said they would sometimes be given a bill from the neighbour on calls they had made, mostly when the bill became too high.

Generally, people in urban areas do not use the neighbours' home phones much, due to the social set-up of urban areas. The situation is different in rural and high-density areas, which are associated with low income levels. At the few homes that do have fixed phones, neighbours use them mostly for receiving calls or making important calls, which are normally for no charge.

The owners seem to be the primary users of fixed phones in homes. One youth said parents normally use fixed phones when calling other landlines or making trunk calls, because it is cheaper than using mobile phones. Other focus groups said home phones are mostly used by the children at home, since the parents have mobile phones. Two areas indicated that home phones are mostly used by women, because "they have more friends than men" and "by nature they are more talkative". Girls and women seem to use the phone most, because they receive more calls from male partners; they say it is the duty of the men to call them.

Since the advent of mobile telephony, the use of fixed lines has waned. However, more people are being connected to fixed lines for the purpose of connecting to the Internet, and it is likely that the advent of cheaper radio links and VSAT technologies could reverse this trend. Still, demand based on the need for Internet connections is quite limited, considering that only a small section of the population is in a position to procure computers and eventually connect to the Internet.

**OFFICE PHONES.** About 59.6% of respondents are able to receive personal calls at work. 64% are allowed to make personal calls from the office, but only to landlines and not to mobile phones, long-distance or international destinations.

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Response	Survey location		
	Major towns	Other urban	Rural
Yes	22.0%	6.8%	6.2%
No	78.0%	93.2%	93.8%
Total	100.0%	100.0%	100.0%

Figure 12.6: Mobile phone penetration, per location

Some focus groups indicated that the use of office phones to make private calls is not as common as receiving calls; however, some people do so to save their airtime. One focus group admitted to using office phones secretly to make private international calls. Three groups indicated that when using these phones for private purposes, one had to sign a logbook to trace the users in case the bills became too high. Some private companies and civil service sectors allow Cell Z mobile phones to be called, as the calls are the same cost as fixed line calls.

Some workers in the private sector are given some airtime for their mobile phones (ranging between US\$2.5 to 10) per month, removing the need to save units by using the office fixed phone. At other companies, the office phones are blocked for calls to mobile phones. Friends and relatives do not usually use office phones.

**MOBILE.** As anticipated, the majority of mobile phones are located in the major metropolitan areas (22%), but surprisingly there is not a significant difference between other urban and rural areas. Of those who have

Figure 12.7: Mobile phones on pre-paid and contract

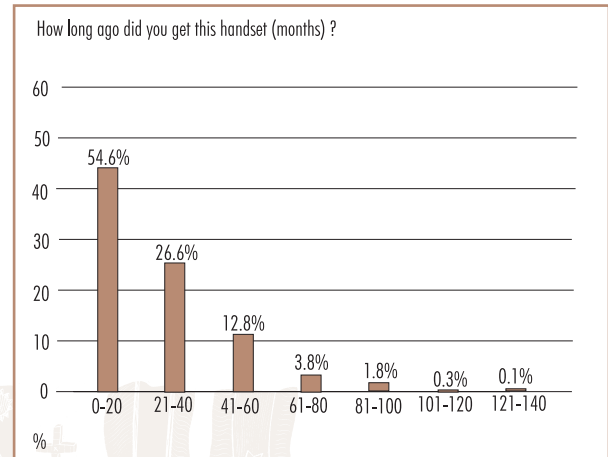
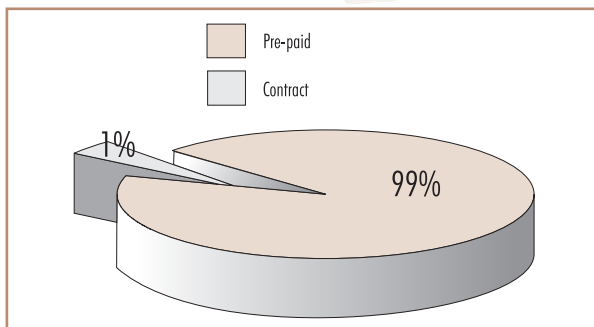


Figure 12.8: Start of ownership of mobile phones

mobile phones, the vast majority are pre-paid.

From the bar chart above, it can be seen that a number of people got their first mobile phones up to five years ago, though the majority (53%) got their first mobile in the past two years. This can be attributed to the arrival of a new service provider, Cell Z, which is cheaper than the other two operators. This has forced the other two to improve their services and reduce tariffs, driving down the costs of mobile handsets and phone accessories as privately-owned mobile phone shops and vendors have mushroomed.

Nearly 20% of mobile respondents have more than one SIM card, due to the high costs of interconnection between the various networks and the fact that some mobile phone operators do not have network coverage in some parts of the country. Subscribers therefore change SIM cards depending on the location. This is most common among people who travel extensively.

Only 0.3% of the respondents have work-related mobile phones. All of them live in the major towns.

**EXPENDITURE.** On average, people spend about K25,000 per week (US\$5.18; US\$ PPP 11.42) on mobile phones. About 80.4% pay their own bills. Possession of a mobile phone is not confined to people in higher income

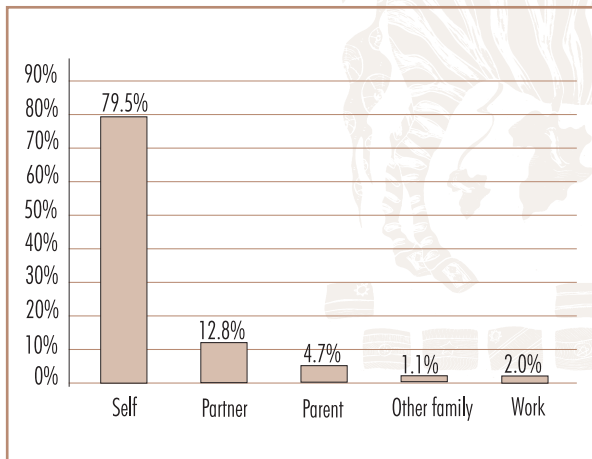


Figure 12.9: Payment of mobile expenses/bills

brackets. Airtime can be bought from service providers and agents all over the country. Most respondents said they do not budget for airtime.

The graph above indicates that the majority of the people pay their own bills, followed by those whose bills are paid by their partners. Those who acquire mobile phones generally have the means to pay the bills.

The focus groups revealed that users acquire airtime from a range of sources, including their own resources (salary/business) and gifts from spouses, friends, relatives and employers. They even go so far as to borrow money to buy airtime in an emergency. Men are often a source of airtime for women. “My husband buys for me, and he is responsible for my airtime of about K50,000 (US\$10) per week,” said one woman. Another young woman said: “My dad buys me credit twice a week and I also receive credit from good friends (the so-called landlords, or boyfriends).”

Some students in colleges or universities forgo part of their meal allowances for airtime, which they said was not a luxury, but a necessity.

**AFFORDABILITY OF HANDSETS.** The majority of respondents said they could afford handsets, especially the employed – both workers and those from the

business fraternity. Though less than 15% of respondents have had more than one phone, they claim they are able to change handsets as technology changes or their phones are stolen.

With the reduction of duty on phones and high competition levels, the prices of handsets have become affordable even to some low-income earners. Some respondents will save for several months to acquire a mobile phone. Others indicate that they can afford a handset and a SIM pack, but the ongoing expenses scare them off at this stage.

**IMAGE AND STYLE.** The type of mobile phone one uses is often directly related to one’s status in society. Mobile handsets with cameras, Internet connectivity and polyphonic ringtones are very expensive, and are mostly limited to the affluent. Low-income earners usually own older, bigger handsets with fewer features. Some of these big handsets are referred or nicknamed as “brick”, “gun”, “weapon” or “Roger Roger”, in reference to two-way radios.

None of the participants in the survey had a third generation (3G) phone, but most of the elite were well-informed about the features and abilities of these phones. High costs and poor availability are a major hurdle, but it is expected that 3G phones will eventually become commonplace.

**QUALITY OF SERVICE.** A total of 62.9% of respondents in major towns indicated that they were happy with the quality of service they were getting from the mobile operators. Some 29.7% said they were sometimes happy,

Figure 12.10: Quality of service of mobile operators

Response	Survey location			Total
	Major towns	Other urban	Rural	
Yes, happy	62.9%	47.7%	74.1%	61.7%
No, unhappy	7.5%	3.1%		6.6%
Sometimes	29.7%	49.2%	25.9%	31.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

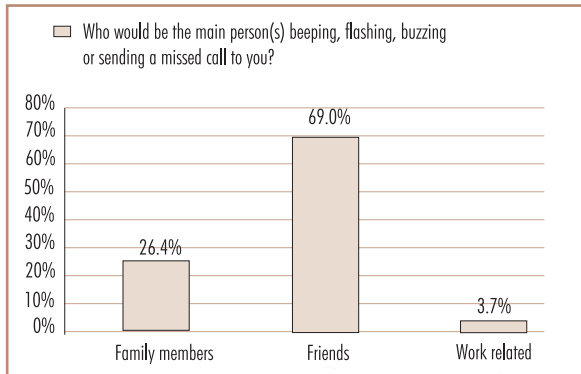


Figure 12.11: Beeping, flashing and buzzing

mentioning problems with congestion and high noise levels. In rural and peri-urban areas, people complained of many dropped calls, due to poor network coverage outside the major centres. Nevertheless, considerably more people indicated that they were satisfied with the quality of service than those that were not.

**TEXT MESSAGING.** There is a high utilisation of text messages (SMS), mainly due to the low cost of text message services. This has been further boosted by the interconnection of the three mobile operators.

**PAGING (FLASHING/BEEPING/BUZZING).** Around 66% of respondents say they “page” (missed call) occasionally, and are paged regularly. Most of those paged are friends or family members. In terms of making and receiving calls, 99.7% of respondents both make and receive calls, whilst 0.3% only receive calls. However, these figures should be contextualised against a backdrop of people being reluctant to acknowledging an inability to pay for calls.

**BRIBERY.** None of the respondents acknowledged having bribed anybody to obtain mobile services. This could be due to the fact that mobile services are relatively easy to obtain.

**INTERNET.** The Internet market in Zambia is still developing, with around 45,000 Internet users. However, the potential for rapid growth is being undermined by

the inadequate telecommunications infrastructure, poor telephony accessibility and high access costs. There is an increase in shared Internet access centres (Internet cafés) in major towns.

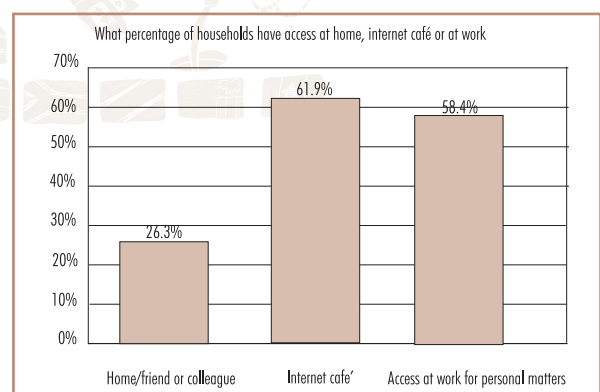
The Internet is mostly used along the railway line or in urban areas, and by people who are more enlightened. For people to access the Internet, they use their workplaces, universities, colleges, libraries, homes and cyber cafés. There are more cyber cafés in Lusaka than Copperbelt.

Most people who use the Internet do so for the following reasons:

- exchanging messages (email);
- searching for news;
- finding social or marriage partners;
- searching for lost friends;
- shopping (e-commerce);
- studying; and
- curiosity, and downloading games and music.

The majority those using the Internet are the youth and workers. Few people in rural areas have access to the Internet, and those with the inclination must travel to towns and cities to access Internet services. Apart from Internet cafés, offices and learning institutions, a few homes have Internet access. Respondents say inadequate knowledge of the Internet, and prohibitive

Figure 12.12: Access to the Internet



	Time	Survey location	
		Major towns	Other urban
How long does each trip (one-way) take to the Internet café you use most often (by usual transport)	0-10	29.6%	36.4%
	11-20	43.2%	36.4%
	21-30	19.8%	27.3%
	41-50	6.2%	
	51-60	1.2%	

Figure 12.13: Time taken to reach Internet café by survey location

costs, are among the factors that dissuade some people from using it. Other factors are distance to Internet cafés, access speed and overcrowding in the cafés.

There is no direct correlation between one's income level and having an email address. The major factor is the level of awareness of the Internet and its availability.

Just less than 30% of respondents indicated that they have access to the Internet, either at home or a friend's home, whilst 71% have no access to the Internet. Persons between 21-40 years of age are the major users of the Internet in the country. Only 29% have access at home, compared to 83.9% who have access at work or school. 64.9% of people use Internet cafés. The survey shows that there is very low penetration of the Internet in rural areas.

For nearly half the respondents, it takes between 11 and 20 minutes to reach the nearest location with an Internet facility.

**EMAIL.** Only 0.4% of people in rural areas have an email address, compared to 10.5% and 1.9% in major towns and other urban areas, respectively. This could be due to lower literacy levels and availability of Internet facilities. It is not surprising that most Internet investors concentrate on the urban areas, where they are likely to recoup their investments quicker.

Almost all the youth and workers/professionals in the focus groups had email addresses, with most youths and some workers being on public accounts (like Yahoo).

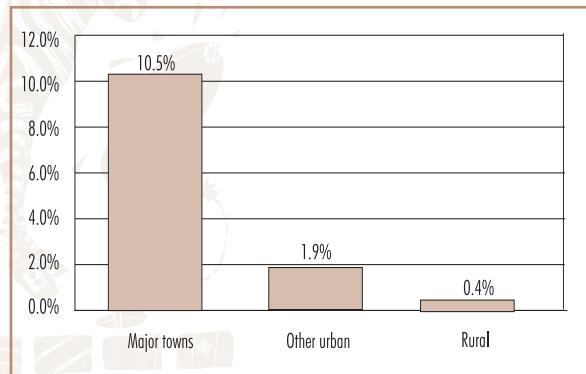


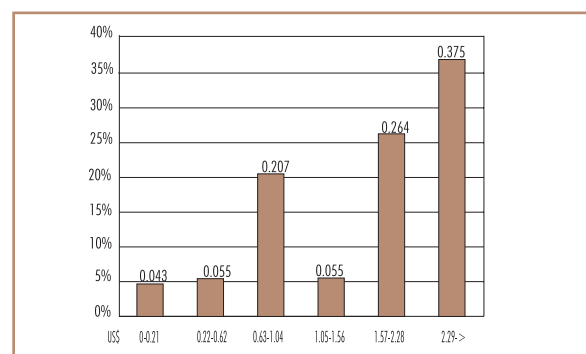
Figure 12.14: Ownership of e-mail address by location

Email is normally used for communication with business partners, friends and relatives, both abroad and domestically. Email has become more popular than posting letters. Most users found it difficult to quantify how mail they received or sent per month. One respondent said she can receive more than 10 mails per day, and responds to at least half of them.

**INTERNET CAFÉS.** In Lusaka, Internet cafés charge an average of K1,500 (US\$0.31; US\$ PPP 0.69) for 15 minutes of Internet services. In the Copperbelt, it is more prohibitive, with Internet cafés charging an average of about K18,000 (US\$3.74) per hour. This can be attributed to the law of supply and demand; there are fewer cafés in the Copperbelt.

According to respondents, factors that influence the choice of Internet café include:

Figure 12.15: Average amount spent per week at Internet café



- the costs and billing systems;
- the quality of connection;
- safety and security of the premises;
- privacy;
- the attitude of café managers;
- ambience; and
- the type of equipment used, e.g. the condition of the computers.

Because of security reasons, most women users like going to cafés close by. Some youths go to specific cafés where they meet friends, or have an arrangement to pay discounted rates.

**AGE.** Most respondents said everyone with the interest and ability to use the Internet should do so, regardless of age. However, they said younger children should be supervised. Some participants said only those 18 years and older should use the Internet, while very few elderly people use the Internet.

**SOURCES OF INFORMATION.** Radio, television, the telephone and the print media are the most common sources of information for most respondents, with the Internet being cited as a preferred source by some youths, workers and professionals due to its versatility.

**EXPENDITURE.** The ISPs charge a fixed monthly rate, ranging from \$23 to \$30 per month. An average of ZMK14,678.36 (US\$3.04; US\$ PPP 6.71) per week is spent on Internet cafés. It was clear from the focus groups that people do not usually budget for Internet and telephone usage. Some youth in colleges and universities will go so far as to spend their allowances, meant for books or meals, on the telephone and the Internet. However, borrowing money for telephone and Internet usage is not common, unless in emergencies. Most respondents, especially the youth, workers and professionals, consider expenditure on telephone and Internet as essential, while many women consider telephone expenditure a luxury.

**CONCLUSION.** The baseline household and individual survey, together with the qualitative follow-up focus group survey, brought to the fore a number of issues pertaining to accessibility and usage of ICTs in Zambia. The study confirmed the low penetration of ICT services in rural areas, compared to urban areas – a natural consequence of the pattern of network coverage, which tends to be more concentrated in the urban areas. Despite the reduction in the waiting time for fixed phones, there is still unmet demand. Increasing numbers of people are putting in lines for Internet purposes, mostly in urban areas.

The survey also confirmed the increase in the overall penetration rate, particularly in the past five years. This can be clearly attributed to the liberalisation of the sector, particularly the introduction of mobile phone services. However, the restricted nature of the liberalisation means that consumers have not yet seen the real benefits of competition. The demand for mobile phones is high and more needs to be done in Zambia, especially in the rural areas.

The study highlighted the high cost of ICTs in the country, particularly as most people in the country are in lower-income brackets. This impacts negatively on the utilisation of services. There is a need to extend the provision of ICT services to other parts of the country, particularly rural areas. To attain this, telephone operators and ISPs should continuously explore new lower-cost technologies that may be appropriate in rural areas. A prime example is the community mobile phone service being provided by Celtel, which is cheaper and has the potential to penetrate rural areas.

The liberalisation of the international gateway will also drastically reduce the cost of mobile phone calls. At the moment, all mobile service providers have to use Zamtel's facilities. There is also a need to come up



with a policy on VoIP. Although there seems to be an unwritten law restricting the use of VoIP, it has the potential to reduce the cost of ICTs in the country.

The mission statement for Zambia's ICT policy is "to enhance and accelerate sustainable economic growth and social development through the provision of affordable and universally accessible ICTs". The mobile service providers have spread to all districts of Zambia, and reduced prices on handsets, airtime and other value-added services have increased the uptake of services. The provision of VSAT also has potential to extend the provision of ICT services to rural areas, but the cost of this technology and services are still currently prohibitive for most Zambians.

The cornerstone of development in the 21st century is information. It is this information that largely contributes to the positive performance of a nation in terms of effectiveness and efficiency of the public sector, private sector and civil society.

Zambia's major resource is its people. They are the targets of the vision of the ICT Policy, which reflects the national vision for social and economic development. Therefore, the vision and mission statements of the country are based on the need to create knowledge in various sectors of the economy. Most Zambians have realised that they cannot do without information and communication to develop. For many, the adoption of ICTs in everyday life is the basis for wealth creation and development. This will largely depend on whether ICT will:

- be made affordable and cost-effective enough to become an "enabler" resource in people's livelihoods ; and
- be made available where and when it is required by consumers.

The country has a high demand for ICTs, particularly amongst the youth. However, the

potential of ICT in the country has not been fully exploited. This can be attributed to inadequate telecommunications infrastructure, poor telephone accessibility and high access costs. It can also be further attributed to the lack of a deliberate policy environment that can provide the necessary impetus for the use of ICTs in the country. Currently, the country has no ICT policy, although efforts to develop one are under way. Once enacted, it is hoped that this will provide a necessary framework for the growth of the ICT sector. □