

**FEMALE ENTREPRENEURS' CELLULAR PHONE HABITS IN  
ZAMBIA AND SOUTH AFRICA**

by

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## DECLARATION

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I declare that *Female Entrepreneurs' Cellular Phone Habits in Zambia and South Africa* is my own work, and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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SIGNATURE

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## SUMMARY

This study explores the ways in which female entrepreneurs in Zambia and South Africa use their cellular phones, as well as their interests and needs in using this technology. The findings in this study are therefore crucial to the body of knowledge on programmes that seek to uplift women's lives through the deployment of ICTs, since current policies do not make full provision for the use of mobile phones in female entrepreneurship.

Information on female entrepreneurs and cellular phones was collected in the literature review. The scrutiny of various literature sources and the analysis of the responses from the interviews with the female entrepreneurs were carried out to arrive at answers to the following research questions:

1. Can telecommunications (specifically, cellular phones) increase the participation of women in the economy?
2. What are the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa?
3. Are the communication needs of business women in Zambia and South Africa adequately met?
4. What are the obstacles that female entrepreneurs in Zambia and South Africa face in the use of cellular phones?
5. What are the similarities and differences in the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa?

In order to gather information on the consumer habits of female entrepreneurs in Zambia and South Africa, a survey was conducted of 100 female entrepreneurs. The female entrepreneurs identified in this survey consist of female business owners with no more than 50 employees each, from Gauteng Province in South Africa, and Lusaka Province in Zambia. The female entrepreneurs were identified through the accidental sampling technique, and a structured questionnaire was used to collect information from them.

The findings of the investigation reveal that cellular phones have the potential to increase the participation of women in mainstream economic activity, since they are a useful means of communication that allow women from diverse backgrounds to

communicate easily for both business and social purposes. Accordingly, national policy-makers in South Africa and Zambia need to investigate further the potential of using cellular phone or similar technology to empower small-scale businesswomen.

The investigation also shows that the cellular phone consumer habits of female entrepreneurs in Zambia and South Africa differ when it comes to using cellular phones for business and social communication purposes. More Zambian women indicated that they use their cellular phones in business operations, while South African women showed a tendency to use their phones more for social purposes.

The results of this investigation further illustrate that despite the importance in value which the mobile phone has for women entrepreneurs in both Zambia and South Africa, the communication needs of women's entrepreneurship are not adequately met. The main obstacles in meeting the communication needs of female entrepreneurs in Zambia and South Africa are inadequate network coverage and high prices. The study shows that a number of women (52,2%) indicated that they are inhibited from effective communication services and therefore resort to borrowing other people's mobile phones.

The lack of empirical studies on the use of telecommunications by female entrepreneurs in both Zambia and South Africa attests to the fact that women's entrepreneurship is still an area that requires in-depth investigation. If various development efforts are to meet their targets, clearly the area of women's entrepreneurship and how various ICTs such as cellular phones are used therein needs urgent investigation.

**Key terms:**

Mobile phones; cellular phones; telecommunications; communications; consumer habits; economic development; female entrepreneurs; Information and Communication Technologies; women's entrepreneurship; Zambian women; South African women

## **ACRONYMS AND ABBREVIATIONS**

ADSL	Asymmetric Digital Subscriber Line
ANC	African National Congress
BEE	Black Economic Empowerment
CAZ	Communications Authority of Zambia
GDP	Gross Domestic Product
GSM	Global System for Mobile Communications
ICASA	Independent Communications Authority of South Africa
ICTs	Information and Communication Technologies
IMF	International Monetary Fund
MNP	Mobile Number Portability
NGOs	Non-Governmental Organisations
PSTN	Public Switched Telephone Network
SMS	Short Message Service
SPSS	Statistical Package for Social Sciences
SNO	Second National Operator
SMMEs	Small, Medium and Micro-Enterprises
VSAT	Very Small Aperture Terminal Networks
WTO	World Trade Organisation

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# CHAPTER 1

## INTRODUCTION

### 1.1 FEMALE ENTREPRENEURS AND CELLULAR PHONES

It is reported that women's increased interest and need for income opportunities has led to the rise in the number of women who own and manage their own businesses (Rakow 1987:26). Added to this, government policy-makers in Zambia and South Africa have put in place programmes to improve the situation of women in business. In Zambia, for example, the government formulated an initiative called the Technical Education, Vocational and Entrepreneurship Training in 1996. Nonetheless, there is still lack of capacity for developing effective women entrepreneurship skills (H.M. Consultancy Services 2005:23).

Currently there is little research on women's entrepreneurship in Africa. In South Africa, the Department of Trade and Industry reported that the reason for the paucity of studies on women's entrepreneurship could be attributed to the lack of indigenous research studies. Furthermore, the department drew attention to the call for appropriate tools of measure in conducting empirical studies, as well as ways to overcome obstacles in accessing African women entrepreneurs themselves (South Africa: Department of Trade and Industry 2005:8).

In addition, there is a knowledge gap on female entrepreneurs' communication habits and needs when it comes to cellular phone technology. Additional studies are required to eradicate this information gap. Moreover, communication technologies are an essential development tool in remedying the marginalised status of businesswomen (Momo 2000). If female entrepreneurs are to be brought into mainstream economic activity, their use of information and communication technologies (ICTs), including cellular phones, needs deeper investigation.

## 1.2 BACKGROUND TO THE PROBLEM

Zambia's economic growth is still below the needed 6% - 7% that will reduce the levels of poverty significantly (Central Statistical Office 2006:31). However, a number of strides have been made to redress this situation, including privatisation measures and budgetary reform (Bauer & Taylor 2005:70-75; Richardson 2006:9). A current global explosion in copper prices has boosted Zambia's economy. There have been enormous injections of foreign investment in the mining industry which, in turn, has created job opportunities. It is reported that copper brought in \$510-million in 2002, and by 2004 it had generated more than \$1-billion (Central Statistical Office 2006:31). Maize production (the staple food of Zambia) was also good in 2005, which boosted the country's Gross Domestic Product (GDP) and agricultural exports. It is reported that even though a tighter fiscal policy is needed in order to help cut high inflation, the economy grew by 5,1% in 2005 (Seria 2006:7). As the biggest copper producer in Africa, it is envisaged that Zambia's economy will grow by 6% in 2007 (Seria 2006:7).

On the other hand, the South African economy boasts of modern infrastructure that supports an efficient distribution of goods to major urban centres in the sub-Saharan region. In general, South African economic policy can be described as fiscally conservative, but strong, with a focus on inflation and the liberalisation of trade in a bid to create more job opportunities and increase household income (Seria 2006:7). According to International Monetary Fund (IMF) economic indicators, growth in South Africa is predicted to expand at a moderate pace as higher oil prices and mounting interest rates reduce spending (Seria 2006:7). With a population growth of about 2.6% to 3% per year, the South African economy needs to grow by at least 6% in order for national growth to be sustained (Rotberg 2002:489). Current growth rate for the third quarter of 2007 is reportedly at 4.2% (Dollar still in the doldrums... 2007:2).

There are striking similarities between Zambia and South Africa. To begin with, both countries were previously under British rule (Bauer & Taylor 2005: 46, 50, 238, 241). South Africa and Zambia also have social and cultural similarities in that their indigenous people groups include the Bantu-speaking peoples. The Bantu-speaking peoples share similar linguistic structures and customs (Bauer &

Taylor 2005:49, 241). Both countries also face similar challenges in the twenty-first century. These include the AIDS pandemic, eradicating high levels of poverty and unemployment, as well as sustaining economic growth (Bauer & Taylor 2005: 76, 273). Since most of the major socio-economic development challenges that South Africa and Zambia face are similar, it is interesting to investigate how female entrepreneurs in the two countries fare under the various ICT and development initiatives that have been implemented at national level. This study is motivated, in part, by shared socio-economic and historical ties.

Although the communications infrastructure in South Africa is more advanced than that of Zambia, it is insightful to analyse and compare how female entrepreneurs use cellular phones. Both countries advocate for the empowerment of women using ICTs (South Africa. Department of Communications 2001; Zambia. Ministry of Communications and Transport 2005:47). Policy aside, concrete research to drive empowerment initiatives is lacking; therefore this study is a small contribution which aims to explore the particular purposes for which female entrepreneurs use mobile technology, and what their needs and interests are.

Before proceeding with a detailed comparative analysis of cellular phone use, it is important to discuss some of the concepts that form part of the core of the research problem at hand.

### **1.2.1 Clarification of concepts**

The following is a clarification of concepts that are pertinent to this study on female entrepreneurs' cellular phone habits in Zambia and South Africa:

#### **a) ICTs**

ICTs can be defined as the means by which information is captured, processed, stored and communicated electronically. Examples of ICTs include telephones, computer hardware and software, networks and the Internet (Arunachalam 1999:465; Heeks 1999:1-3). The developmental view of ICTs is that they are

able to aid various processes in most sectors of society such as health, education, agriculture, as well as the business world (Heeks 1999:1-3). Furthermore, the developmental viewpoint holds that when it comes to the empowerment of women it is imperative that they get access to various ICTs such as the Internet, telephones and cellular phones (Saunders, Warford & Wellenius 1994: 248).

## **b) Cellular phones**

Providing wireless communication, the synonyms for the word 'cellular phone' include cellphone, mobile phone and simply mobile and phone (Levinson 2004:xiii). In this study, the words 'cellular phone,' are used interchangeably with 'mobile phone'. The cellular phone is a mobile phone that provides people with the ability to speak to one another in almost anyplace and at anytime, creating greater accessibility (Levinson 2004:1, 178-179). In addition, mobile phones have the capability of providing essential links for entrepreneurs (The World Bank 2006:3).

In this study of the use of cellular phones by female entrepreneurs, the issues that are dealt with include:

- Affordability - prices and women entrepreneurs' views on cellular phone prices, their monthly bills and the payment of cellular phone bills;
- Accessibility – how easy it is for female entrepreneurs to purchase cellular phones, and the number of phones they possess;
- Satisfaction levels – the extent to which female entrepreneurs are satisfied with the services they receive on their cellular phones;
- Service improvement – establishing whether or not female entrepreneurs think the services on their cellular phones need to be improved, and if so, the specific areas for improvement.

### **c) Female entrepreneurs**

A female entrepreneur can be defined as a businesswoman, or an industrialist. A female entrepreneur is often seen as a woman who is engaged in commercial activities such as trading, manufacturing, selling, dealing or operating a company that is engaged in one or more activities (International Labour Organisation 2002:4). In her study, Jalbert (2000:9) makes critical observations in stating that female entrepreneurship stems “from an individual’s creative spirit into long-term business ownership, job creation, and economic security.” She further asserts that women entrepreneurs have commitment and integrity as they are concerned with economic empowerment, entrepreneurial development, as well as innovation.

According to Jalbert (2000:9-10), female entrepreneurs are active at all economic levels, be it domestically, regionally, and globally. Thus it can be surmised that economic development is closely related to the advancement of women, since in countries where women entrepreneurship has been highly advanced, economic growth has also been steady, and vice versa (Jalbert 2000:9-10).

In this study, the term female entrepreneurs is restricted to referring to those women who operate their own businesses in urban areas (regardless of their age or sector), with no more than 50 employees. The typical female entrepreneur in Africa owns a small enterprise usually in retail trade, but also in wholesale trade, handicrafts and services. For many women entrepreneurs, owning a small business is an essential or expected part of their lives, as they cannot make ends meet by solely relying on their spouses’ incomes or by the spouse being the sole provider for the household (Kupier 1991:1).

### **d) Consumer habits**

Consumer habits can be simply described as consumer behaviour. Consumer behaviour is the study of how people buy and what they buy; when they do their buying and why they make particular purchases. The study of consumer behaviour is usually undertaken in marketing studies that focus on consumers’

use of products and brands (Mittal 2006:550). The investigation at hand centred on *how* female entrepreneurs acquire and use cellular phones in Zambia and South Africa, and what their interests in using cellular phones and other ICTs are. Since the scope of consumer habits is wide, the study on the cellular phone consumer habits of female entrepreneurs was limited to the following specific areas:

- Monthly consumption – the issue of monthly consumption of cellular phone services focussed on establishing the impact of pricing on female entrepreneurs' use and monthly spending on mobile phones;
- Business use of cellular phones – the extent to which female entrepreneurs use their phones to reach suppliers, employees, customers and other stakeholders for business purposes;
- The use of cellular phones for social purposes – the extent to which female entrepreneurs use their phones to contact their families, relatives and friends;
- Establishing the extent to which female entrepreneurs use other people's cellular phones and vice versa;
- Finding out the cellular phone features popularly used by female entrepreneurs; and,
- Establishing whether there are other ICTs which female entrepreneurs prefer to use, besides their cellular phones.

Knowing female entrepreneurs' consumer habits in terms of cellular phones can enable one to identify their ICT needs, influence national policy and bring women from the margins of economic activity. Recent studies indicate that small businesses (in which female entrepreneurs are concentrated), lag behind in their ability to exploit mobile technology (Mobile technologies ... 2006:12). It therefore remains critical to study the cellular phone usage patterns of female entrepreneurs in order to ensure that they do not continue to remain on the fringes of the national economy.

### **1.2.2 Zambia**

Located in sub-Saharan Africa, Zambia, with a surface area of 752,615 sq km, is bordered by eight countries: Angola, Democratic Republic of the Congo, Malawi, Mozambique, Botswana, Namibia, Tanzania, and Zimbabwe (Mulavu, Kanyanga, Imasiku & Mwenda 2005:178). The population density of Zambia is 13.00 per sq km, and the total population is 10.3 million. The literacy level is at 79% (Bauer & Taylor 2005:36; Mulavu et al 2005:178).

Zambia was formerly known as Northern Rhodesia and was under the administration of the British South Africa Company from 1891 until 1923 when the United Kingdom government took over the administrative reins from the company. Under the leadership of its first president, Kenneth Kaunda, Northern Rhodesia changed its name to Zambia upon gaining independence on 24 October 1964. At the time of its independence, Zambia had a healthy mining and agricultural sector. From the 1960s to the 1990s, under Kaunda's government, the mines and commercial farms were made public property. Poor commodity prices, an absence of sectoral diversification, and low agricultural output impacted negatively on the economy. As the Zambian debt grew, so did its poverty. The economy was also adversely affected by a prolonged drought (Bauer & Taylor 2005:36).

In 1991 the one party rule of Kaunda's United National Independence Party dissolved and was replaced with the multiparty democratic system. General elections were held and Frederick Chiluba became Zambia's new president. The new government ushered in liberalisation programmes that promised economic reform and debt relief, under the guidance of the IMF. However, the structural adjustment programme failed, since it brought with it as many problems as it did benefits. The 2001 general elections brought in the current president, from the ruling Multiparty Movement for Democracy, Levy Mwanawasa (Richardson 2006:9).

Like the rest of the countries in sub-Saharan Africa, the population of Zambia has to bear the effects of excess mortality due to AIDS, which consequently leads to lower life expectancy, and higher infant mortality and death rates (Bauer & Taylor

2005:36). The other negative effects of the AIDS scourge include lower population growth rates and changes in the normal or expected population distribution. The following is the population distribution of Zambia: 46.3% is made up of those aged between 0-14 years (with 2,673,891 males and 2,656,268 females); 51.3% of the Zambian population comprises those aged between 15-64 years (2,925,910 males and 2,969,324 females); while a mere 2.4% is made up of people of 65 years and over (117,877 males and 158,740 females) (Bauer & Taylor 2005:36; CIA World Factbook 2006).

Gillwald (2005:8) asserts that there have been major improvements in access to voice telephony due to mobile phones, over the last half of the decade in Africa. The telecommunications sector in Zambia is managed by the Communications Authority of Zambia (CAZ), which is in charge of licensing. CAZ was established as a statutory body by the Telecommunications Act No. 23 of 1994 (Zambia 1994). CAZ is also mandated to ensure telecommunications service providers adhere to the provisions of their licences (Zambia. Ministry of Communications and Transport 2005:54). The number of main telephone lines in use in Zambia stands at about 90,000. As a member of Intelsat, Zambia has an Earth Station in Lusaka that provides the country with direct telephone, telefax, e-mail and television links with the rest of the world (Kachamba 2004:9-10; Zambia. Ministry of Communications and Transport 2005:11).

In Zambia, high-capacity microwave radio relay links a good number of major towns and cities, and there are several cellular telephone services in operation, with Internet service being widely available and very small aperture terminal (VSAT) networks that are operated by private firms (Zambia National Commission for UNESCO 2001). In 2005, there were 2,789 recorded Internet hosts and 231,000 Internet users. Since the liberalisation of the airwaves, Zambia has experienced a growth in the number of radio stations. There are currently more than 10 radio stations (Zambia National Commission for UNESCO 2001). Zamtel is the current state-owned telecommunications company in Zambia, and is the only licensed operator allowed to provide public switched telephone network (PSTN) services. Mobile network competition in Zambia is shared amongst three operators that use the Global System for Mobile Communications (GSM) technology: There is Celtel, MTN that acquired Telecel

and Cell Z (owned by Zamtel) (MTN Group Limited 2005:3). Predictably, there has been a rise in the number of mobile phone users in Zambia. The number of cellular phone subscribers is expected to reach 2 million by the year 2008 (Kaswende 2006). It is also reported that, 99% of the subscribers use prepaid services (MTN Group Limited 2005:3; Mulavu et al 2005:178–179; Zambia. Ministry of Communications and Transport 2005:12).

### **1.2.3 South Africa**

Located in the southernmost point of the continent of Africa, South Africa (including the Prince Edward Islands), has a total surface area of 1,219,912 sq km. Its neighbouring countries are Botswana, Lesotho, Mozambique, Namibia, Swaziland and Zimbabwe (Infoplease 2006). The population of South Africa is 47.4 million, and the adult literacy rate (of those who are 15 years of age and above), is 86% (Gillwald, Esselaar, Burton & Stavrou 2005:130; Statistics South Africa 2006a).

Historically, the San people were the first settlers in South Africa, followed by the Khoikhoi and Bantu-speaking peoples. The Dutch East India Company brought the first European settlers to the Cape of Good Hope in 1652 (Infoplease 2006). Like Zambia, South Africa was previously a British colony. The territory of the Cape of Good Hope was seized by the British in 1806, after which many of the Dutch inhabitants moved farther inland towards the north to establish their own territories, often referred to as the Boer Republics of the Transvaal and Orange Free State. In 1867 diamonds were discovered and in 1886, gold. High immigration brought on by the discovery of gold and diamonds increasingly caused tensions between the Boer Republics and British imperial intentions. Initially, the Boers withstood British advancements, but were overpowered in the Boer War between 1899 and 1902 (Bauer & Taylor 2005:241-243). The Union of South Africa was formed in 1910, with Louis Botha as the first Prime Minister. The policy of 'separate development' (later formalised as apartheid under successive Nationalist regimes) for different races was established. African political activity was reinforced with the formation of the African National Congress (ANC) in 1912 (Infoplease 2006). This activity gained impetus in the

1960s and 70s, with the Soweto disturbances of 1976 heralding the onset of militant Black Consciousness. During the 1980s internal political pressure, assisted by wide-spread economic isolation, caused the Nationalist government to introduce ongoing States of Emergency, which did little to quell resistance. The 1990s finally brought a new era when the apartheid regime came to an end, with Nelson Mandela being elected as the first black president of South Africa in 1994. In June, 1999, Thabo Mbeki, the Deputy President and leader of the ANC, was elected President (Bauer & Taylor 2005: 241-245; Rotberg 2002:460).

The South African population comprises of a majority (58%) who live in urban areas. The representation of women in parliament is 32.8%, much higher than Zambia that has a female representation of only 12% (Bauer & Taylor 2005:46, 238). Like Zambia, the South African population is adversely affected by HIV and AIDS. An estimated 20.1% of the adult population in South Africa live with HIV (Bauer & Taylor 2005:238, 278; Rotberg 2002:460). South African economic growth (at 4.2%) is not yet strong enough bring down its high unemployment rate, which is at about 25.2% (Dollar still in the doldrums... 2007:2; Seria 2006:7). South Africa is also still challenged with overwhelming economic struggles (Seria 2006:7).

The Independent Communications Authority of South Africa (ICASA) is the regulator of the telecommunications and broadcasting sectors as mandated in the Independent Communications Authority of South Africa Act of 2000 (South Africa 2000). The amended Act of 2000 provides for the dissolving of the Independent Broadcasting Authority and the South African Telecommunications Regulatory Authority; transferring their functions to ICASA. ICASA's principle roles include; formulating regulations and policies in broadcasting and telecommunications, issuing licences to telecommunication and broadcasting service providers, managing of the frequency spectrum and handling disputes and complaints against licensees (ICASA 2007; South Africa 2000).

In South Africa, the Telecommunications Act of 1996 made provision for mobile network competition, although two mobile networks had already started operating in 1993. It is estimated by Gillwald et al (2005:130-133) that up to 95% of cellular customers in South Africa are prepaid customers. In 2004, the total

number of mobile phone users was 19.5 million (Gillwald et al 2005:130-133).

The South African mobile market consists of four major network service providers; Vodacom; MTN; Cell C; and the newest entrant to the market in 2006, Virgin Mobile (Stones 2006:1). Virgin Mobile network was launched in South Africa in June 2006, with mobile number portability (MNP) being used to support its business case. Number portability is said to be a catalyst that can help to bring prices down, as service providers are forced to compete with one another in trying to retain their existing customers and to win new ones (Stones 2006:1). However, MNP has been received with consternation by some stakeholders in the communications industry. They claim that the introduction of Virgin Mobile will not necessarily reduce tariffs, as was the case when Cell C entered the market as the third mobile operator in 2002. The Communication Users Association of South Africa maintains further that there will be no real benefits brought by the fourth mobile operator, and thus it remains up to ICASA to enforce effective competition in the market (Glazier 2006a).

#### ***1.2.4 ICTs and entrepreneurship in Zambia and South Africa***

ICTs form an important part of business, economic and social development. Clark (2006), states that ICTs are one of the keys to attaining development, as well as being crucial in bridging the digital gap between the rich and the poor. Mobile and wireless communication are fast becoming crucial in everyday business. Mobile phones using GSM have reached areas in Africa where there were previously no fixed line services. In Zambia, the combined subscriber base on the mobile networks was 450,000 in 2005, exceeding the fixed line subscriptions of 90,000. Cellular network coverage is now found in all provincial centres and is provided by at least one of the cellular network providers. Rural towns that are also now covered by cellular network services include Siavonga, Mpika, Chongwe, Mpongwe, Kazungula, Nampundwe and Chirundu (Zambia. Ministry of Communications and Transport 2005:13).

There are many small businesses in Zambia and South Africa that rely solely on mobile phones. Small businesses are especially reliant on their cellular phones

to the extent that cellular phone costs make up a big proportion of their overall costs (Portability put on hold 2006:12). Infrastructure development, including mobile and landline networks and related services, is increasingly seen as a major contributor to economic development and a rise in GDP. Saunders et al (1994:3-32) are also of the opinion that telecommunications and ICTs have an intrinsic role in economic development. They conclude that from facilitating access to information for buying and selling goods, creating transport efficiency and coordination of international activities, ICTs prove to be indispensable. Pyke (1995:4, 6) agrees with Saunders et al (1994:3-32) in maintaining that telecommunication technology is a prerequisite for developing countries to participate effectively in the global economy. In Indonesia for example, Pyke (1995:6) reports that satellite communications have accelerated development by improving the efficiency of economic, commercial and administrative activities.

#### **1.2.5 *Female entrepreneurs in Zambia***

With the constant evolving of technology, the communication needs and interests of female entrepreneurs in South Africa and Zambia also need to be continuously looked at. The analysis of their needs and interests should endeavour to make sure that women are no longer excluded from mainstream economic activity. The motivation for this is that there is a direct link between the effective use of ICTs, and development. Female entrepreneurs, who have a vital role to play in the development of their countries' economies, need to have their communication needs adequately met (Saunders et al 1994:248-249).

The downside of micro-businesses run by women is that they lag behind larger organisations when it comes to assimilating advanced mobile technologies. Glazier (2006b) reports that small, medium and micro-enterprises (SMMEs) (where a lot of female entrepreneurs are concentrated) are at a great disadvantage in their ability to make mobile technologies work for them. It is therefore a matter of urgency that the consumer habits of female entrepreneurs in Zambia and South Africa are examined, in order to help women in business to take advantage of mobile technologies that can help them move from the margins of economic activity. The overall aim of development efforts for women

in SMMEs should focus on the use of various mechanisms such as mobile technologies, to grow into larger enterprises that make a significant contribution to economic development (African Development Bank Group [s.a.]).

The situation in Zambia is such that girls and women are socialised to assume subservient roles to men. These perpetuate their dependence on men. From a historical perspective that looks at gender imbalances in Zambian society, Stearns (2006:102) reveals that Zambian women started arguing for new roles as homemakers in the early 1900s. They actually used the moral and legal values of the colonial authorities to secure improvements in their family life, as their traditional position eroded.

On the other hand, boys and men are socialised into leadership and decision-making roles. This scenario plays itself out even in the business sector, where most women engage in the informal business sector which does not require formal education that most of them lack (International Labour Organisation 2003:5). As such, women in Zambia dominate the informal business sector, where they find it easier to engage in income-generating activities than in the formal economy. It has been reported that in 1996, the percentage of Zambian female entrepreneurs (84%), in the informal sector was higher than that of their male counterparts (64%). This confirms the assertion that more women than men engage in the informal business sector where a high level of formal education is not required of them (International Labour Organisation 2003:6)

From previous research it can be established that most female entrepreneurs in the informal sector in Zambia are mature, with family and social responsibilities. Their family and social obligations often require that they find a source of income, and that is why they often engage in informal business activities (International Labour Organisation 2002:22).

However, starting and maintaining a business is not an easy task for women in developing countries. The report by International Labour Organisation (2002:8), states that women entrepreneurship in Zambia is challenged by a number of hurdles, which include:

- Lack of funding to start a business;

- Lack of necessary skills and training;
- Lack of tools and equipment;
- Unavailability of premises on which to conduct the business;
- Marketing problems due to stiff competition;
- Bureaucratic red-tape;
- Difficulties in finding suitable employees;
- Domestic responsibilities that leave little time for, or conflict with, business responsibilities;
- Lack of collateral to attain loans or credit; and,
- Negativity towards female entrepreneurs by society.

The International Labour Organisation (2002:16) reveals that 71.9% of people in the labour force in Zambia are in the informal market sector – 53% of them women and 47% men. In recognising the fact that women are well able to create businesses that make valuable contributions to their societies (for example by employing workers, diversifying the economy and generating taxable revenue), the government of Zambia, non-governmental organisations (NGOs), businesses and other stakeholders, have put forth mechanisms to address the plight of women entrepreneurs (African Development Bank Group [s.a.]; International Labour Organisation 2002:27).

Some of the instruments put into effect to create an environment that is enterprise-enabling include the following:

- Legal and regulatory frameworks – some of the laws include: Trade Licensing Act No.11 of 1968 (with numerous amendments up to 1994); Investment Act of 1993; The Small Enterprises Development Act of 1996; Technical Education Vocational and Entrepreneurship Training Act of 1998; Zambia Revenue Authority Act of 1993 and the Companies Act of 1995.
- Policy frameworks for enterprises – this includes: National Gender Policy of 1996; National Population Policy of 2000; Commerce, Trade and Industry Policy of 1994; Technical Education Vocational and Entrepreneurship Training Policy of 1996; National Education Policy of 1996; National Youth Policy of 1996 and National Policy on Disability of 1996.
- Business development service providers – the network of business development service providers is aimed at facilitating the development and

growth of individual entrepreneurs through the provision of the necessary support services. The support services from which female entrepreneurs would also benefit include services such as: finance or credit facilities; machinery and equipment; raw materials; business consultancy and advisory services; education and training; extension services, and market-related information (International Labour Organisation 2002:27-30).

By providing an enabling environment through some of the measures indicated above, it is hoped that female entrepreneurs in Zambia will be able to overcome most of the obstacles that they face. Exploiting the power of ICTs for development will be an additional step for women towards redressing gender imbalances (Zambia. Ministry of Communications and Transport 2005:31). Mobile phone technology is a powerful tool, since, unlike other communication technologies such as the Internet, business women are not inhibited by low levels of functional literacy. However, the cost of telecommunications in Zambia may be prohibitive for many businesswomen. Mulavu et al (2005:181-182), state that the average income for a household in rural areas is ZMK291,484.70 (US\$60.39) per year. In comparison to this, the average cost of a fixed line is ZMK58,290.16 (US\$12.11). Added to the other essential requirements such as food, health and education, the price of landlines in Zambia is prohibitive.

In places where landlines are not available in Zambia (rural areas mostly), people make use of mobile phone kiosks, like those provided by Cell Z in Kamwama. The concept of using mobile phone kiosks makes more economic sense than travelling many kilometres to access a landline (Mulavu et al 2005:181). Most informal sector entrepreneurs in Zambia also find it more viable economically to make use of mobile phones, due to the prohibitive prices of fixed-lines. As Zulu (2005) agrees, it is not uncommon in Lusaka to find that a good number of people make use of phone kiosks that provide cellular phone services.

### **1.2.6 Female entrepreneurs in South Africa**

For decades, women in South Africa have been oppressed both socially and economically. Moreover, Black African women in South Africa face numerous obstacles such as equitable access to educational, economic and social facilities and services (Lues 2005). Historically, the situation of Black African women in South Africa was perpetuated through the legislation that existed before 1994. This legislation had a negative impact as women were inhibited from finding jobs, having equitable access to education and, in turn, being able to attain independence. As such, Black African women with families experienced numerous hurdles in attempting to make ends meet (Lues 2005).

Needless to say, gender issues spilled into the African Nationalist movements that began to take shape in the early part of the twentieth century. In South Africa, there is a long tradition of highly organised women's movements (Bauer & Taylor 2005:322-323). It was initially assumed that the cause of the nation would serve to advance both men and women. Many women participated extensively in nationalist campaigning, under the assumption that independence from colonial and racial control would lead to improvements in their lives. However, nationalism in itself was not the key to resolving the pressures on gender roles which Western influence had promoted in modern Africa (Stearns 2006:102). To this end, women's groups and liberation movements arose, as women stood up for their own rights. One event that is singled out more often among hundreds of other examples of women's mobilisation, is the 1956 women's march in protest against carrying passes as stipulated in the 1945 Natives (Urban Areas) Consolidated Act (Rotberg 2002:243).

In the 1990s when appropriate legislation was passed, women (of all races) were at least awarded a fairer chance of accessing resources that could bring about their advancement. New legislation brought about a re-examination of gender issues and looked into the repositioning of women's roles and rights. The Telecommunications Act – Policy Directions that were issued by the Minister of Communications in 2001, for instance, clearly state that the targets for universal access should include accelerated access for people from diverse backgrounds. It is also stated that due regard should be given to persons from historically

disadvantaged groups, including women, when it comes to applications for telecommunications licences (Lues 2005; South Africa. Department of Communications 2001).

Like their Zambian counterparts, South African female entrepreneurs are mostly on the margins of mainstream economic activity. They continuously face hurdles in starting, growing and sustaining their own businesses (African Development Bank Group [s.a.]). The hardships that they face include:

- Negative cultural norms and societal problems that hold them back;
- Lack of information and appropriate training skills;
- Inadequate access to finance, markets, technology and business infrastructure;
- Lack of resources for skills development and capacity building; and,
- Disjointed efforts to identifying issues and developing strategy that would adequately influence policy affecting business and involvement at government level (Calling all women entrepreneurs 2005).

Due to the reasons outlined above, more and more women have turned to the informal sector to start their own businesses. Women typically start their businesses with far fewer resources than their male counterparts (African Development Bank Group [s.a.]). Some of the main reasons why women start their own enterprises in South Africa include:

- The general attraction of owning an enterprise;
- Self-determination to be autonomous and independent;
- Family responsibilities; and,
- Lack of career advancement or discrimination in the job market (South Africa. Department of Trade and Industry 2005:8).

The activities of female entrepreneurs in South Africa are mainly concentrated in the areas of crafts, hawking, personal services and retailing. The activities of women entrepreneurs in South Africa clearly show that they hardly get a chance to be involved in value-adding business opportunities (Calling all women entrepreneurs 2005). A report from the Department of Trade and Industry (2005:12-13), further shows that between 2001 and 2002, the total entrepreneurial activity rate for men was 8.1% whilst that for women was only

4.9%. Males in South Africa are reportedly 1.7 times more likely to be engaged in entrepreneurial activity than women because women are not given the same opportunities as men. Therefore, there is a call for government intervention that will help to place women in value-adding enterprises through adequate funding of women's entrepreneurship (South Africa. Department of Trade and Industry 2005:12-13).

In realising the ardent need to help develop women's entrepreneurship for economic growth and job creation, South Africa has put in place policy interventions and programmes. These measures (though not currently bringing about the total desired impact) are aimed at shifting women entrepreneurs from the (minuscule) 'survivalist' sector to small business ventures and medium to large-scale enterprises (Calling all women entrepreneurs 2005). To this end, the Department of Trade and Industry has set in place the following mechanisms for supporting women entrepreneurs:

- Educating women to move from the position of dependency to self-reliance and economic growth;
- Facilitating the development of ICTs in order to bridge the gap between new enterprises and those that are well-established;
- Creating networking links, international partnerships, community participation and awarding women access to national and global markets;
- Creating partnerships between relevant stakeholders such as the government, private sector, NGOs and business associates;
- Making provision for appropriate business skills training and the required support services;
- Reviewing and re-visiting regulatory frameworks and policies that hamper women's entrepreneurship so as to accelerate economic growth (South Africa. Department of Trade and Industry 2005:11).

### **1.2.7 Female entrepreneurs and telecommunications affordability in Zambia and South Africa**

The effort of making cellular phone services affordable to female entrepreneurs in Zambia and South Africa requires the pricing of such services to be reasonable and non-prohibitive. The current situation is such that communication costs are relatively high in both countries (Ord 2007:6; Zambia. Ministry of Communications & Transport 2005: 39).

#### **a) Female entrepreneurs and telecommunications affordability in Zambia**

The following are some of the important policy developments in Zambian communications industry. In 1994, the Telecommunications Act was passed by parliament. The Act makes provision for individuals and organisations to apply for services provision licences. Under the same Act, CAZ – the communications authority – was also established, to regulate and monitor the provision and operation of telecommunication (Zambia Telecommunications Company Limited 2007). Another important policy development is The *National information and communication technology policy* of 2005. This policy recognises the fact that access to telecommunications services holds a crucial role in commerce, “through reduced cost of doing business by improving communication facilities to enhance production, export competitiveness and efficient service delivery.” However, it is acknowledged in the same policy that the high cost of technology makes ICTs inaccessible to most Zambian citizens (Zambia. Ministry of Communications & Transport 2005: 6, 39).

The need for women in commerce to be equipped with access to ICTs, as well as the fact that high access costs are inhibiting, is recognised in Zambian policy (Zambia. Ministry of Communications & Transport 2005:47). Nonetheless, there is no clear policy or piece of legislation that gives any explicit steps on how to reduce the costs of communications for women entrepreneurs in Zambia. It is for this reason, then, that the need for research into the area of female entrepreneurship and ICTs becomes urgent. Research into the area of female entrepreneurship could prove to be paramount in the development of new

policies that adequately address the problems encountered in female entrepreneurship, including the high costs of telecommunications.

**b) Female entrepreneurs and telecommunications affordability in South Africa**

In South Africa, the Telecommunications Act that was passed in 1996 allowed for the establishment of ICASA, the regulator of the sector, as well as making provision for mobile network competition (South Africa 1996). Telkom, the incumbent fixed line operator was partially privatised in 1997. In 2001, the Telecommunications Amendment Act was passed to authorise the establishment of a second fixed network operator, and to allow further mobile competition including number portability (South Africa 2001). In September 2004, a set of policy directives were issued, aimed at further liberalisation of the services market, as well as cutting down prices and giving users and consumers wider choices (Gillwald et al 2005:130-131; South Africa. Department of Communications 2001). Despite these various policy developments in the telecommunications industry in South Africa, fixed-line basic telephony costs are still claimed to be among some of the highest in the world (Ord 2007:6).

Even though price cap regulation has been in place in South Africa since May 1997, it is only until recently that the price cap framework was approved by the Communications Minister, and has started being applied fully (Melody 2003; Telkom to adjust prices... 2005). Despite price cap regulation, it is contended that the prices of telecommunication services are still too high. Love (2005:1) asserts that prices have escalated to the point where the majority of South Africans can hardly afford a basic landline service. Mawson and Glazier (2006), concur asserting that the regulator is weak in failing to bring down the cost of telecommunications.

The costs of telecommunications in South Africa, rank quite highly when compared to other countries. A report from the International Telecommunication Union (2006:22) supports this view, in stating that South African households spend about 6,8% of their income on telecommunications, compared to 3% that is spent in households from most developed countries (International

Telecommunication Union 2006:22). For the price-cap period 2005-2008, the 5% real increase limitation will be applicable to all services that are in Telkom's basket of residential services. It will also apply to business line rentals, business installation charges and ISDN rental charges (South Africa 2004:24-25). It has also been recently reported that lower prices for certain services are most likely, while a number of others will be adjusted slowly to stay at par with inflation (Telkom to adjust prices... 2005).

The repercussion that pricing of telecommunications has for women entrepreneurs is an area that needs further investigation. The fact that over 80% of black-owned small businesses use mobile phones as their only means of telecommunications illuminates the important role that mobile technology has in entrepreneurship (I-Net Bridge 2005). It is generally believed that increased competition and better regulation lead to a reduction in prices and improved availability of telecommunications services in both the mobile and fixed-line segments in Africa (World Trade Organisation 2006:23). Therefore, it follows that the dynamics of pricing for mobile phone services will have an intrinsic relationship with women's entrepreneurship. This is because female entrepreneurs are also faced with the dilemma of high communication costs.

### **1.2.8 *Development and gender***

In Africa, the role of women in business is acknowledged as being crucial in meeting development efforts (African Development Bank Group [s.a.]). However, women still continue to have less access than men to various social structures and services such as health, education facilities and financial institutions. When it comes to education, for example, in most developing countries only 58% of girls attend primary school, while the figure is 73% for boys (Momo 2000). The scenario is similar also regarding access to ICTs, where girls and women are marginal users. Saunders et al (1994:248) report that in developing countries, women tend to use phones less often than men. In Senegal, for instance, it was found that the balance between men and women phone users was 85% to 15%. The imbalances in phone usage patterns reflect

the socio-cultural restrictions and the lower average levels of education and employment that is prevalent among women in developing countries.

It is argued that in order to alleviate some of the aforesaid problems governments should help to create a generation of literate girls and women who can use ICTs effectively (Momo 2000). In addition, the promotion of female entrepreneurship can help bring about positive changes in the lives of African women, as well as in the African economies. Businesses run by women also reportedly have many positive spill-over effects such as creating employment opportunities for other women, networking with other businesses and attaining equitable distribution of income (African Development Bank Group [s.a.]). Needless to say, the role of ICTs in women's entrepreneurship in Africa is a vital one. A few privileged African women use various communication technologies such as mobile phones in everyday business (African Development Bank Group [s.a.]; Momo 2000).

The universal access and universal service policies of South Africa and Zambia recognise that women should be empowered to access and use telecommunications services (South Africa. Department of Communications 2001; Zambia. Ministry of Communications and Transport 2005:47-48). Women in South Africa have been identified as being historically disadvantaged and thus needing upliftment in all sectors of society.

It has also been realised that a cellular phone in Africa is mostly a shared communication tool. It is reported that in Zambia it is not uncommon to find a mobile phone being made use of by several people (Zambia. Ministry of Communications and Transport 2005:31). Zulu (2005) states that in Africa, Zambia included, the majority of women who are illiterate prefer to use cellular phones that allow them to access information via voice. Nevertheless, it is essential to understand the needs, interests and expectations of women in using cellular phones. The consumer habits of female entrepreneur mobile phone users in South Africa and Zambia therefore need to be investigated on an extensive level. Deeper investigation into the use of cellular phones by women in business is needed, since ICTs such as mobile phones can be a powerful development tool (H.M. Consultancy Services 2005:10; South Africa.

Department of Communications 2001; Zambia. Ministry of Communications and Transport 2005:47)

### **1.3 PROBLEM STATEMENT**

Female entrepreneurship has been acknowledged by the national policy-makers of both Zambia and South Africa as being crucial to overall national economic growth. However, despite many years of various efforts and programmes to bring female entrepreneurship into mainstream economic activities, women entrepreneurs still mainly operate from the fringes of national economy (H.M. Consultancy Services 2005:22-23).

Over the years, one of the keys to development has been identified as ICTs (Pyke 1995:4-5). Women are slighted in gaining access to ICTs that can aid the growth of their businesses from small enterprises to significant operations. After years of failure to narrow the digital divide in least developed countries, the past number of years have recorded significant results in teledensity targets that have, in numerous cases been met (and even exceeded), due to the advent of mobile services (ITU says digital... 2006:5). Compared to 12% growth in the fixed-line sector between 2000 and 2005, the mobile services sector grew by 82% in the least developed countries, with 90% being prepaid mobile services (ITU says digital... 2006:5).

That said, it now becomes fundamental to explore the use of mobile phone services in female entrepreneurship. The research question investigated is: "What are the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa that can be identified in order to help move them from the margins of main economic activity to the centre or mainstream?" If mobile technology has such a tremendous potential to narrow the digital divide, the potential therein also needs to be applied to female entrepreneurship in developing countries, so as to eradicate some of the inequalities and hurdles that hamper women from growing in business.

However, it is not enough to just acknowledge the benefits of cellular phone technology in female entrepreneurship. What remains to be done is to investigate *how* female entrepreneurs use cellular phones, and *what* their attitudes and opinions towards mobile phones are. In Zambia and South Africa, there is little investigation in female entrepreneurs' actual consumer habits of ICTs, including mobile phones. In acknowledging the fact that top-down approaches do not always work (Besette 2004), not much can be achieved in mainstreaming female entrepreneurship into national economy by harnessing the power of telecommunications, without first studying women's communication patterns, needs and interests.

#### **1.4 SUB-PROBLEMS**

The following are the sub-problems that have been identified:

- Can telecommunications (specifically, cellular phones) increase the participation of women in the economy?
- What are the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa?
- Are the communication needs of business women in Zambia and South Africa adequately met?
- What are the obstacles that female entrepreneurs in Zambia and South Africa face in the use of cellular phones?
- What are the similarities and differences in the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa?

#### **1.5 PURPOSE OF THE STUDY**

The purpose of the study is to identify the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa in order to help move them from the fringes of main economic activity to the centre. The study argues that female entrepreneurs are an integral part of the economy and society, whose cellular phone consumer habits and interests need to be investigated. Infrastructures of telecommunications eliminate barriers of distance

and hence improve social services, public participation, access to sources of information and agricultural productivity. This then shows that there is a direct link between communication technologies and national development (Pyke 1995:6). The deployment of ICTs to sustain those marginalised from economic activity (such as women) is therefore crucial (Gillwald 2005:12). This study argues that before deploying ICTs to empower women, it is imperative to first study their ICT usage patterns.

An investigation on how female entrepreneurs use various communication technologies such as cellular phones therefore becomes imperative. Without proper analysis of women entrepreneurs' communication technology consumer habits, communication policy and legislation aims of using ICTs to pull them into the mainstream economic and social activities cannot be fully achieved.

## **1.6 RESEARCH METHODOLOGY**

### **1.6.1 *Type of study***

This study is an exploratory investigation since it aims to identify the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa in order to help move them from the margins of main economic activity to the mainstream. Since there is very little research into women's consumer habits in Zambia and South Africa, this study is therefore mainly explorative. As Welman and Kruger (1999:24) agree, explorative research is suitable for investigating problems about which little is known about the phenomenon. Wimmer and Dominick (1994:255) similarly add that where there is hardly any prior knowledge upon which predictions concerning the research results can be made, exploratory research should be applied. This study then is an attempt to gather preliminary information on the consumer habits of female entrepreneurs in Zambia and South Africa.

This study involved conducting a survey to acquire information from female entrepreneurs regarding their characteristics, opinions and general use of cellular phones. Leedy and Ormrod (2005:183) recommend the use of surveys

when trying to learn about a large population by surveying a sample of that population. The steps in a survey include asking a series of questions to subjects, summarising their responses with percentages or frequencies, and then drawing inferences about the population from the responses that the sample gives (Leedy & Ormrod 2005:183). Wimmer and Dominick (2006:179-180), list the following as advantages of survey research:

- Problems can be investigated in realistic settings, where consumer behaviour can be examined where it happens – in this case, the female entrepreneurs were interviewed on their business premises, unlike studies conducted in laboratories or other artificial settings.
- The costs involved are not very high, when compared to the amount of information that can be collected – for this reason, both self-administered questionnaires and face-to-face interviews were used in this study in order to minimise costs, and in turn, substantial information was collected.
- Data can be collected with relative ease from a variety of people, and different variables can be examined – in this study, data was collected from women in South Africa and Zambia, and different variables such as the subjects' demographics and opinions regarding mobile phones were scrutinised. In addition, it was possible to analyse the data gathered in many different ways (as discussed in chapter 4).
- Survey research is not limited by geographical boundaries – it was possible to conduct this study in two different countries (South Africa and Zambia).

Cross-case analysis, which is the method that entails comparing data from two or more scenarios in order to establish similarities and differences in the different cases, was also used (Foster [s.a.]). The cross-case study approach was used in drawing comparisons between the data gathered in Zambia, and that from South Africa in the self-administered questionnaires and structured interviews. This approach entailed tabulating the results received from the questionnaires in each country, and then comparing them according to the research questions (as discussed in Chapters 4 and 5). The primary sources of data in this study were the standardised questionnaires (as shown in Appendix B).

### **1.6.2 Target population**

The target population in this study were female entrepreneurs from Lusaka (in Zambia) and Gauteng (in South Africa), who own small businesses with not more than 50 employees. Since the population of all female entrepreneurs in Lusaka and Gauteng was too large (115,260 and 350,980 respectively) for this survey, it was hence limited to only a sizeable sample of 100 women (50 from Zambia and 50 from South Africa) (Central Statistical Office 2005a:55, 56, 58, 64; Statistics South Africa 2005:9-25; Van der Westhuizen, Goga & Oosthuizen 2005:20-21). The sample was selected using a non-probability sampling method called accidental sampling (Burger & Silima 2006:92). Accidental sampling essentially means that in identifying the sample of women entrepreneurs, an initial smaller number of women entrepreneurs were identified by the researcher, and then they were asked for referrals to others (Sampling methods 2007).

For the purposes of this study, female entrepreneurs are described as those businesswomen in Zambia and South Africa who own businesses from diverse sectors such as retailing, travel and tourism, catering, agriculture and the clothing industry (Education and Training Unit [s.a.]). By analysing the ways in which the selected sample of the population use their cellular phones and the issues pertinent to them, the results of the investigation could then be inferred to the rest of the population. However, the sample was only limited to the urban areas of Lusaka and Gauteng. Therefore, the findings of the study cannot be applied in their totality to female entrepreneurs from rural areas, whose consumer habits are unlikely to be identical to those of women entrepreneurs in urban cities.

### **1.6.3 Collection and interpretation of data**

The main tools used to collect data in this study are grouped into two categories: Questionnaires (the same questionnaire was used for both self-administration and face-to-face interviews) and the review of various literature sources (discussed at length in Chapter 2).

**a) Self-administered questionnaires and face-to-face interviews**

A standardised questionnaire (found in Appendix B), that addresses the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa was distributed to a selected sample of 100 respondents (50 in Gauteng Province in South Africa, and 50 in Lusaka Province in Zambia). The questionnaire was designed to elicit responses to specific research questions that were presented. Where relevant, Likert scales that rank answers (for example on a scale of 1 to 5), were used to measure attitudes and opinions (Babbie 1998:167-177).

In instances where it was more feasible to conduct face-to-face interviews, the standardised questionnaire was deployed as an instrument for conducting personal interviews. The responses to the questions that addressed the specific research questions were then collected from each country. After the results were recorded, they were compared to establish the differences and similarities in the consumer habits of female entrepreneurs with small businesses in the urban areas of Zambia and South Africa (Babbie 1998:378). Using the comparative method of cross-case analysis, inferences could then be made and reports drawn up. The results from the questionnaires were tabulated into matrices from where they could be analysed (Foster [s.a.]). The computer software that was used for this purpose was the Statistical Package for Social Sciences (SPSS).

**b) Literature sources**

Apart from the questionnaires that were handed out to the selected samples of female entrepreneurs, other sources were analysed in order to gather information on the women's use of cellular phones. The primary sources that were studied included the telecommunications Acts of both Zambia and South Africa, as well as other relevant documents that centre on national policy, such as the *National information and communication technology policy* of Zambia and *Government Gazette, no. 26977* of South Africa. Secondary sources that were analysed included previous research pertaining to the research problem at hand,

as well as various issues such as ICTs, development, gender theory and the participatory approach to development.

In essence, the literature review was conducted to find out what work had already been done in this particular area of research, as well as the kind of data that needed to be collected (Welman & Kruger 1999:280). Moreover, the literature study served as validation of the findings that were drawn from the research surveys in Gauteng and Lusaka, regarding the research questions on whether telecommunications (mobile phones in particular) can increase the participation of women in the economy.

## **1.7 CONCLUSION**

The area of female entrepreneurship in both Zambia and South Africa has not been investigated comprehensively. Investigating the consumer habits of female entrepreneur cellular phone users is therefore of utmost importance, as this study will go a long way in presenting findings that are relevant not only in the field of mobile technology, but also in national policy-making that pertains to the empowerment of women and ICT dissemination.

The preceding discussion brought out the numerous hardships that female entrepreneurs encounter in Zambia and South Africa, which include issues of access to communication technologies, as well as their affordability. It also highlighted some of the mechanisms that have been implemented in order to help businesswomen in their plight. Even so, there is a lot more that needs to be done in order to help develop women's entrepreneurship to a more meaningful level. One of the things to be done that is of paramount significance is making cellular phone services more affordable to women entrepreneurs. As Clark (2006) states, the key to winning the war on the digital divide is the mobile phone. The exploration of the consumer habits of female entrepreneur mobile phone users can hence add to the knowledge on how the needs of women entrepreneurs can be addressed in order to include them in mainstream economic activity (H.M. Consultancy Services 2005:10; South Africa. Department of Communications 2001).

The first chapter (the current one), introduces the topic under study – that is, female entrepreneurs and cellular phones. It also gives an indication on how the investigation is undertaken, by presenting the background to the problem and the country profiles of South Africa and Zambia. It also includes an overview on the current status of female entrepreneurs and their communication needs. It looks at the challenges experienced by women entrepreneurs and some of the initiatives that have been put in place to redress these problems in Zambia and South Africa. Chapter 1 also provides the overview of the purpose of the study, definitions of the key concepts used in this study, as well as the methodology used in investigating the problem.

Chapter 2 is a literature review on the research topic. It forms the theoretical background and the premise on which the investigation is based. The major theories that are looked at are gender theory and the participatory model. This chapter also addresses the issue of ICTs and their role in development.

The third chapter describes the research design and methodology used in this study. The research methodologies discussed in the chapter include a literature review and a survey research using structured interviews and self-administered questionnaires. This chapter also looks at the main sources of error found in survey research and describes how they were dealt with in this investigation.

Chapter 4 contains the results of the investigation, and indicates how the findings were compiled in addressing the five main research questions. An interpretation of the results is given, as well the implications thereof.

The last chapter, Chapter 5, is the conclusion of the research report. The chapter also covers the limitations that were encountered in the study. It includes some recommendations on ameliorating the communication problems faced by female entrepreneurs in Zambia and South Africa, whose use of mobile phones needs deeper investigation in order to attain national-policy aims of uplifting them from the fringes of the economy by using ICTs.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter forms the theoretical backbone of the study of women entrepreneurs and their cellular phone habits. Firstly, an introduction to ICTs is given, followed by a discussion on development. The discussion on development includes definitions of what it is, the role that ICTs have in development, as well as the various theories of development that have been adopted since the 1940s. The classical theories to development that are analysed are modernisation theory, dependency theory and the world system theory. Their strengths and weaknesses are described in terms of their applicability to the research topic on the cellular phone consumer habits of female entrepreneurs in Zambia and South Africa. Next, the chapter demonstrates that the traditional development frameworks are not very suitable for this investigation. The role of women in development and their use of ICTs is either not covered comprehensively enough, or too rigidly. As such various intrinsic factors that affect women in development are ignored.

The theoretical frameworks upon which this investigation is based are the participatory development approach, and gender theory. As found in this theoretical review, some of the principles founded in gender theory that advocate the inclusion of women in decision-making concur with the presuppositions in the participatory model of incorporating the participation of people at all levels in order to attain development (Rakow & Navarro 1993:144, 147; Servaes 2000:51). Moreover, both Zambia and South Africa have adopted the plurality approach found in the participatory model of development when it comes to mainstreaming female entrepreneurship (Davids, Theron & Maphunye 2005:9-10). The way in which accidental sampling was used in this study also somewhat encompasses the tenet of including people at grassroots' level in development efforts (as advocated for in the participatory model), in that the people interviewed were relied upon to make referrals to others. Therefore, in line with both the participatory model of development and gender theory, female

entrepreneurs who were initially identified in this survey were relied upon to identify their counterparts who formed the selected sample (as discussed in chapter 3). These two frameworks (gender theory and the participatory model of development) are looked at in terms of their relevance to the research questions at hand.

## **2.2 ICTs**

The current information age is no longer an era of manufacturing alone. It is an age of information-processing that makes use of information technologies and a constant flow of new innovations. ICTs are thus the new tools of socio-economic and cultural activity (Santana 1997). The term ICTs is used to signify various technologies such as computers, software, peripherals and connections to the Internet, radio, television, cellular phones and satellite systems, including the numerous services and applications that go with these technologies. In short, ICTs encompass all those technologies that are used for information processing and communications functions (Santana 1997; Zambia. Ministry of Communications and Transport 2005:1).

Arunachalam (1999:465) is in agreement with the general description of ICTs by regarding them as the means by which information is captured, processed, stored and communicated electronically. The examples that he gives of ICTs include telephones, computer hardware and software, networks, Internet, bandwidth and electronic journals. Heeks (1999:1-3) surmises the role of ICTs in society by declaring that it is generally believed that ICTs help in different work processes in most spheres of society like the health, educational, agricultural and commercial sectors.

It is maintained that though technological change brings frictions and adjustment concerns, the countries and businesses that are able to adapt quickly benefit the most (Campion 1989; Organisation for Economic Co-operation and Development 2004:4). Since the new phase of capitalism has become possible due to technological development, there is no way of doing without technologies on all levels of production, as well as in the whole of society. It is further asserted by

Santana (1997), that innovations in microelectronics, telecommunications, digital electronics and network computing have become the basis of socio-economic relations. Therefore, in the current information age, there is no getting away from or doing away with new technological innovations. The importance of ICTs then, is in the ability of technology to create greater access to information and communication for under-served people (Clark 2006; Santana 1997).

The general consensus, as pointed out by Pyke (1995:4) and the Organisation for Economic Co-operation and Development (2004:4), is that ICTs are a prerequisite for participation in the global economy, without which developing countries will continue to fall behind. Urbach (2007) adds to the discourse on the importance of ICTs, and declares that ICTs have enabled Africans to escape the snare of poverty. Nonetheless, the question is *what is the role of ICTs in development?* Before embarking on a discussion of the role that ICTs have in development, it is essential to first look at the various definitions of what development means, as well as the different frameworks in which it has been studied.

## **2.3 DEVELOPMENT**

### **2.3.1 *Definitions of development***

There is no clear consensus on what 'development' means exactly. As a concept, development is often taken to mean economic progress, measured through levels of democracy, literacy, education and health facilities, as well as industrial and urban infrastructure (Saunders et al 1994:37). In broad terms, development can be defined as the process by which a country improves its socio-economic conditions through its resources and attains industrialisation. To some extent, Mansell and Wehn (1998:8) agree with Saunders et al (1994:37), in stating that development is understood to consist of economic growth, increases in per capita income, as well as the attainment of a standard of living that is equated to that of the industrialised countries. The African Union (2007), looks at development as a multidimensional process that brings about an improvement in living conditions, and an improved ability to meet basic needs, such as health,

education and food, and the reduction of poverty and inequality (African Union 2007).

The various views of what development means and entails have been largely criticised as emanating from a Western perspective. To this end, after the failure of development efforts instituted mostly by Western bodies, developing countries in Africa have tasked themselves with defining development in their own terms (Saunders et al 1994:29). In the 1960s, the former president of Zambia, Kenneth Kaunda, for instance, embraced the doctrine of “humanism,” which was premised on the notion that true economic development was only realised when it benefited each individual (Rotberg 2002:94).

### **2.3.2 *The role of ICTs in development***

It is commonly believed that ICTs have a crucial role to play in development. It is contended, for example, by the World Bank (2006:4) that ICTs increase social inclusion, and are crucial to sustainable poverty reduction, as they make national economies more efficient and globally competitive. The following is a discussion on the role of ICTs in development from a positive point of view, followed by a discussion on the role of ICTs in development from a negative perspective.

ICTs have a principal role to play in the development process. It has long been known and acknowledged that if development is to be attained in any given country, ICTs must be put to use (Heeks 1999:1-3).

ICTs have numerous potential uses for development. The technophilic view holds that ICTs have considerable potential when it comes to cutting costs in public administration. Mansell and Wehn (1998:82-98) assert that electronic availability of public information is of great benefit, for instance, when it comes to administrative procedures for small and medium-sized enterprises. Public access points for both personal and public administration activities cut down costs, which would not be the case if the systems were not automated, as in the example of automatic teller machines. When it comes to transport operations, ICTs also play a major part in development. For instance, software is used for

computer-controlled airfield lighting systems. Another example cited by Mansell and Wehn (1998:82-98) is advanced transport telematics. ICTs facilitate administration and other services in the health sector. This is seen in the examples of tele-medicine and tele-radiology. ICTs are also used for educational purposes. For example multimedia applications are used in providing interactive materials and applications for home, school and workplace uses. Other sectors in which ICTs are useful include, but are not limited to the environment, agriculture and business sectors.

In recognition of the fact that telecommunications infrastructure is an important element for development and the prerequisite for growth is often ICTs, the following can be said with specific regard to developing countries (Development Co-operation Directorate 2004:5). Since telecommunication connectivity in the remote areas of many developing countries is absent, and in turn creates a hurdle to development, it is important to develop effective strategies for universal service and access. The extension of services to the rural poor helps to speed up economic growth (Saunders et al 1994:5). Hudson (1994:335) concurs with Saunders et al (1994:5) in pointing out that telecommunications play a vital role in facilitating social service delivery to rural and isolated populations.

Another important aspect to take cognisance of is the fact that there is a relationship between telecommunications infrastructure and other infrastructure, such as electricity and transportation, all of which impact on poverty (Development Co-operation Directorate 2004:5). It is now clear that ICTs have an important role to play in a country's development. If development is to be attained, the digital divide between the rich and the poor needs to be closed by deploying ICTs. This is because the poor are left in a state of deprivation when they lack access to the necessary ICTs which would enable them to lead better lives. Abedian and Antonie (2001:2) report that numerous challenges form part of contemporary business in South Africa. Some of the challenges in the South African business sector include: Black Economic Empowerment (BEE); gender and women empowerment; skills shortage and the effective rollout of ICTs. However, in harnessing the power of ICTs to contribute to development, caution needs to be exercised. The situation should not be allowed whereby the major beneficiaries of ICTs in developing countries are multinational corporations. The

main beneficiaries should be the people of the developing countries themselves. Therefore, ICTs need to be deployed to empower the information-poor (Bornman 2001:379; Gilbert 1996).

Sustainable development requires that ICT tools be fully integrated into the mainstream of development activities. The infrastructure for ICTs and associated portals is essential for people to access the information they need. However, once the infrastructure and access is available, other factors must be in place if ICTs are to become available to large numbers of people. One implication of this is to move towards a wider audience. This implication calls for a strategic approach involving ICT companies, governments, NGOs and individuals (including marginalised people such as women) (Gilbert 1996).

ICTs, which include mobile communication technology, are essential for developing countries like Zambia and South Africa, since telecommunications infrastructure is a prerequisite for developing countries to participate in the global economy (Pyke 1995:4). With reference specifically to small enterprises, it has been observed that often times they lack information regarding the benefits and costs required in the adoption of ICTs (Organisation for Economic Co-operation and Development 2004:5). What remains to be done then is for both the government and private sectors to provide information on the benefits of the adoption and use of ICTs. A study conducted by the International Telecommunication Union in Tanzania and South Africa outlines the benefits of mobile phones which are beneficial for business growth. It states that mobile phones are able to widen markets, facilitate the flow of information, bring down the costs of operations, and more importantly, substitute for costly physical transport (International Telecommunication Union 2006:21). Furthermore, the same study offers proof that mobile phones help users to have better relationships with friends and family, as well as assisting small businesses to operate more efficiently. In South Africa it was found that 62% of small businesses had increased their profits as a result using mobile phones (International Telecommunication Union 2006:22).

The benefits of the adoption and use of ICTs in business operations and growth are numerous. To begin with, ICTs have been found to improve information and

knowledge management, as well as reduce transaction costs while increasing the speed and dependability of operations for both business-to-business and business-to-consumer transactions. Moreover, ICTs have been noted to be effective tools for improving external communications and quality of services for both existing and new customers (Organisation for Economic Co-operation and Development 2004:7). When used effectively, ICTs also help to open up new markets and widen opportunities for conducting business abroad, by using them for operations such as conducting customer orders and making financial transactions electronically, as well as managing customer information. (Organisation for Economic Co-operation and Development 2004:9).

The World Bank (2006:4) also reports that ICTs “provide key inputs for economic development, contribute to global integration and enhance public sector effectiveness, efficiency and transparency.” The World Bank (2006:4) also declares that the use of ICTs by enterprises helps them to grow faster, invest more and become more productive and profitable. Profits in enterprises that use ICTs are also much higher than in those where they are not deployed. Nonetheless, in as much as the above assertions might be true, it must be emphasised that ICTs in themselves do not necessarily bring about development, since the concept of development is complex with various factors playing different roles. It needs to be pointed out that for small businesses to adopt ICTs for e-commerce reasons, their benefits need to outweigh investment and maintenance costs (Organisation for Economic Co-operation and Development 2004:8). The next section looks at the adverse side of ICTs, by presenting ICTs from a technophobic view.

While it is true that ICTs have a profound effect on bringing about development, Mansell and Wehn (1998:1), caution against embracing ICT in its entirety. They maintain that though ICTs have a lot of socio-economic benefits, there are cases in which they make no difference at all, and sometimes they can even be harmful. They maintain that the diffusion of technologies into the developing world is disparate. Where the gap widens between those that have access to ICTs and those that do not, the ones that lack access suffer the most. Bornman, Lesame and Schoonraad (2001:362-363), concur with this view. They hold that even though technophiles believe that ICTs have a positive effect on a country's

development, technophobes argue that ICTs contribute to socio-economic disparities. Technophobes also claim that ICTs also augment other inequalities like unshared political power and widening the digital and knowledge gaps.

In concurring with the technophobic view, Jussawalla (1992:486) reports that in Asian countries like Malaysia and Indonesia, where telecommunications infrastructure has been highly developed, there is a mix of different development stages. In these countries, there is still the challenge to provide basic human services, even though ICTs may be readily available to most people. This then proves that while essential to development, ICTs in themselves are not the only means to attaining it. Moreover, inequitable access to ICTs in society exist, in that certain groups of people like women, are slighted on basis of their gender (Rakow and Navarro 1993:144). Gender theory then, (discussed in section 2.4.2) proves to be vital in the study of how women access and use different ICTs including cellular phones.

### **2.3.3 *Development frameworks***

The study of development communication theory, as reported by Jussawalla (1992:485), has gone through different epistemological shifts – moving from modernisation theory, to the dependency theory, the world system theory and finally to participatory communication policies. From these different epistemological shifts, participatory theory is evident in the models adopted by both Zambia and South Africa as a way of engaging marginalised communities for effective development planning (Davids et al 2005:9-10; United States African Development Foundation 2005). This preference proceeds from the realisation that top-down approaches to development, which are found in earlier development frameworks, do not always work. Thus a more people-centred approach like the participatory model, which embraces some of the capacitating aims of both Zambian and South African democratic aims, seems to hold the key to attaining these. The participatory approach thus appears to be a more feasible attempt to attaining development as it aims to increase the direct participation of poor and marginalised people in various development efforts (PRIA 2001; United States African Development Foundation 2005).

The following is an overview of the various development theoretical frameworks, their strengths and weaknesses, and how, if at all, they are relevant to the upliftment of women entrepreneurs through the use of ICTs.

#### **a) Modernisation theory**

Modernisation theory was a popular theory in the 1940s and 1950s. This theory holds that development can be attained by the removal of barriers in traditional societies and adopting more advanced methods and techniques of development (Servaes 1989:10-11). For the most part, modernisation theory deals with the development gap between the North and South. It is concerned with how best the development gap between the North and the South can be bridged so that the Third World can develop quicker and more effectively. A number of variants of modernisation theory exist, but the most commonly held position comes from Walt Whitman Rostow's views. He endeavours to define firstly where the constituent parts of the world stand and then how the Third World can best attain development by going through the various stages of sociological growth (Davids et al 2005:9).

In all, the modernisation theory is said to be too idealistic and impractical to fully address development issues (Servaes 1989:28). In its prescriptive nature, it does not take into full account the unique conditions found in different cultures and societies of the Third World. In this regard, the modernisation theory fails to incorporate the invaluable contributions of marginalised people in society such as female entrepreneurs in the informal sector. There is not much accommodation for female entrepreneurship's critical input to national development. In its top-down approach, the modernisation theory fails to solicit the input of the people in the Third World that it attempts to help (Bessette 2004). The lack of a people-focussed approach in modernisation theory also pushes women farther into the fringes of national economy. The study of women in development, from the modernisation point of view has been criticised by Morgan, Heeks and Arun (2004:3), as having little relevance to women in the Third World, since their participation in national development is disregarded.

The question asked then is *how* can marginalised people such as women in developing countries contribute and benefit from development? Furthermore, by emulating the technological advancement of the West, to what extent can women in developed countries attain social, political and economic upliftment? While it is true, as reported by Sooryamoorthy, Duque, Ynalvez, and Shrum (2007:3) that ICTs are seen to be the universal remedy for development and that developing countries can benefit by assimilating new ICTs as fast the Western countries, in countries like South Africa and Zambia, not all people (especially women) are in a position to make the most of various ICTs. As concurred by Kole (1995), modernisation theory fails to expound on the link between technology and development. It only has a presupposition that technology has a positive effect on development.

#### **b) Dependency theory**

Dependency theory is a framework of study that deals with the reliance of one country upon another. Dependency theory originated in Latin America in the 1960s, in response to the failures encountered in modernisation theory (Davids et al 2005:12). In this school of thought, the various political and economic positions are used to analyse the complex process of how international trade and domestic development leads developing countries to become more dependent on developed countries. In dependency theory, relationships between developed countries and poor countries are described as based on an unequal balance of power where evidently the developed countries have the upper hand (Davids et al 2005:13). On a global level, dependency theorists allege that technologically advanced countries dominate poorer countries. It is also alleged that international bodies like the World Bank and the IMF set trade and other conditions that are in favour of industrialised countries (Development models... 2004).

The basic tenets of the dependency theory are that a centre-periphery relationship exists between advanced, developed and less developed countries. The theory holds that economic and political power is distributed between the

centre and the periphery. Another tenet of the dependency theory is that the centre (consisting of advanced countries), realises disproportionate gains from trade that is in its favour. One other tenet maintains that the affluent minority in the periphery (the less developed countries), are the ones that divert the much needed capital for investment through conspicuous consumption (Davids et al 2005:12-13). This situation then, leaves marginalised people like women in the informal sector, in a more dire position, as they continue to lack access to crucial resources needed for growth, such as capital and ICTs.

Morgan et al (2004:3) report that in studying women and development, dependency theorists that analyse the intrinsic factors within which gender inequalities lie, take on an approach that is rather too rigid and ideological. It is claimed that similar to the modernisation theory, the rigidity in the dependency approach fails to address the needs of women who are specifically from developing countries such as Zambia and South Africa. Therefore, while it is true that women in developing countries ultimately rely on ICTs that emanate from the West, dependency theory falls short in adequately dealing with their needs, in failing to address various inherent factors that affect their unique and marginalised status (Morgan et al 2004:3). In this regard, dependency theory (though it helps with the understanding of the broader picture on how developing countries rely on the West for ICTs), like modernisation theory, is not a very suitable framework within which to study the use of ICTs and how they can be used to uplift women entrepreneurs from the margins of national economy.

### **c) World system theory**

The origins of the world system theory are traceable to the initial attempts of critiques on imperialism. The critiques were advanced by people like Hobson, Luxemburg, Bukharin, Hilferding and Lenin in the early part of the 20<sup>th</sup> century. They started applying Marx's ideas on imperialism to the international arena. The world system theory is seen as a direct development of the work on imperialism that came from the Latin American school of dependency (Hobden & Jones 2001:205-209).

Beck (2002:25-26) asserts that the world system view holds that all social action takes place in one framework - that of the capitalist world order. In the capitalist world system, there is a progressive inequality and division of labour. The networks or inter-dependences amongst different countries, groups and individuals, form an important basis for the studying of the exchange of information in the world system theory. The world system theory holds that it is possible to describe relationships among world societies as a coherent and interrelated system (Beck 2002:25-26). The world system postulates that the three zones (the core, the semi-periphery and the periphery), are linked together in the world economy. However, their relationship is an exploitative one in which wealth is drained away from the periphery to the core (Hobden & Jones 2001:208).

As discussed in the preceding sections, the modernisation approach recommends that developing countries adopt the technology and technological structures of the West. On the other hand, the dependency and world systems theories maintain that since the West controls the core from which the major production of and dissemination of ICTs occur, the Third World finds itself perpetually dependent on the core (Sooryamoorthy et al 2007:3-4). Like the dependency theory, the world system theory also suggests that not all countries will be able to benefit from ICT-based development, as their dependence on the West for new technologies will only push them farther into the periphery, away from the core where the benefits are. In this sense, the majority of women in developing countries then also get pushed even farther into the periphery, where they benefit little from ICTs. Nonetheless, there is not much discourse from a world system theoretical point of view, on specifically how ICTs affect the plight of women in developing countries. In its top-down approach, the various recommendations that the world system theory makes towards attaining development fail to incorporate the participation of people at grass roots' level such as women in informal sector entrepreneurship.

It is only in the past recent years that development literature has started to take cognisance of the role that ICTs play in development. The world system theory has been criticised as ignoring women and not taking into account their role in national development. Like the other classical theories, it barely touches on the

specific role that ICTs have in the upliftment of women in society (Sooryamoorthy et al 2007:4-5). It is for this reason then, that unlike the classical approaches to development discussed in the preceding sections, the participatory model and gender theory (discussed in the next coming sections) appear to have more relevance to the current problem of how to use ICTs to empower women entrepreneurs. This is because gender theory and participatory theory, focus on women as marginalised people groups in society, whose active participation in various roles (including decision-making ones), is much needed if development and equality is to be attained.

## **2.4 THEORETICAL DEPARTURE**

### **2.4.1 *The participatory model***

The participatory model is a framework that embraces the concepts of plurality. The participatory approach emphasises the importance of cultural identity of local communities. It also places democratisation and participation at all levels (international, national, local and individual), as being of utmost importance if development is to be attained (Servaes 2000:51). Over the past three decades, participatory approaches to development have gained substantial support in the international community. There has been a growing realisation among development practitioners and policymakers that traditional top-down approaches to development have not delivered the desired results. To effectively address issues of sustainability and equity, people-centred and people controlled development is evolving as an alternative approach (PRIA 2001). In essence, the participatory model aims to put people first in all development efforts, including those at grassroots level, such as women entrepreneurs by building local capacity and mobilising community resources (PRIA 2001; United States African Development Foundation 2005).

Community participatory development is a powerful tool to facilitate the development process, when it accompanies local development dynamics. The aim is to encourage community participation with development initiatives through a strategic utilisation of various communication strategies, not only through

digitalised technical packages. It has been found that the transfer of messages from experts to communities, using a top-down approach does not always yield the expected results (Bessette 2004). It is much more effective to use appropriate communication strategies to build capability within local communities. Hudson (1994:355-356) agrees with this approach in reporting that community radio in Canada which began in the 1970s has been successful in giving the native communities access to transmitters in order to broadcast their own local programmes. In finding the best communication solution, all stakeholders (for example experts, people from local communities, extension workers and technical services) need to be in a dialogue. They can then exchange ideas on development needs, objectives and actions. Bessette (2004) stresses that, in order to facilitate participation, research teams and development practitioners must consider the people they want to communicate with as equal partners in a development effort. They must not be seen merely as beneficiaries.

The participatory model also holds democracy and people's rights to express their divergent opinions as being crucial in promoting participation. Democracy, human rights, and the freedom of expression are essential to the ability to use communication and ICTs to advance social change. When democracy and human rights are lacking, participatory development efforts and the use of ICTs cannot be of much help (Bessette 2004).

The participatory approach is an important point of departure since it is founded on the concept of including all relevant stakeholders in policy-formulation processes when it comes to telecommunications. Unlike the classical theories of development (as outlined in the foregoing discussion), the participatory model seems to have more direct relevance to the study of female entrepreneurs and their consumer habits of mobile phones. Ideally, this would be true since participatory development is currently being applied in most developing countries including Zambia and South Africa, where the participation of women and other marginalised people groups is encouraged to influence development initiatives (Davids et al 2005:19-22; United States African Development Foundation 2005).

The participatory model is also of relevance to the topic of the consumer habits of female cellular phone users, since women need to be included in the overall

public policy-making process in order for them to be truly empowered. Participation is therefore deemed to bring about equity (Davids et al 2005:20). Thomas (1997:174) also advocates for people to be re-centred as the subject for change, and cautions against the influences of Western trends in resolving local-specific communication problems. During the formulation of the Telecommunications Act, 103 of 1996, in South Africa, for instance, the plurality approach was exemplified in that a number of participants were consulted – ranging from the business sector to government institutions (South Africa 1996). The same can be said for Zambia, in that a number of stakeholders are consulted in the formulation of telecommunications policy (Kachamba 2004:2). However, the question is, how many of the so-called participants and stakeholders are women? And are the needs of women addressed satisfactorily in Zambian and South African policies?

The participatory approach proves to be a significant theoretical point of departure in this investigation as it address the research questions in the following way: In looking at the question as to whether cellular phones can increase the participation of women in the economy, the participatory development approach holds that the use of tools and techniques, such as ICTs, can strengthen local capacity and foster ownership of development and empowerment, by including all people in society, including women. When dealing with the question as to what the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa are, the participatory approach proves to be useful in that it pursues a bottom-up approach to explain how broad-based and sustainable economic growth can be achieved. The bottom-up approach is imperative in that when trying to answer this question, it is only by engaging the women entrepreneurs themselves as users of mobile phones, that a valid answer can be found, on what their consumer habits are and not by using a top-down approach (United States African Development Foundation 2005). The participatory approach helps to address the question on whether the communication needs of women entrepreneurs are adequately met, by pointing to women as important participants, as one is compelled to understand their needs in order to maximise their participation in the economy. Finally, in assisting with the research question on what the obstacles are that female entrepreneurs in South Africa and Zambia face in the use of cellular phones, the

participatory approach points to women as true development “experts” or grassroots entrepreneurs as they know best what they need and what works for them (United States African Development Foundation 2005).

Nonetheless, even though participatory development is practised in Zambia and South Africa, women entrepreneurs still remain in the fringes of national economy. Burton (2002:43) reports that the participatory approach is inhibited by factors such as high levels of poverty and illiteracy, as well as a policy process which he claims is partly driven by transforming society on ‘legislative exclusion.’ He claims that in the South African context, one of the greatest hurdles to a participatory communication approach is in the effective use of ICTs themselves, which are supposed to be the vehicle for social inclusion. It therefore is imperative for more research to be conducted in the effective use of ICTs such as mobile phones, and more especially in terms of informal female entrepreneurship. Even though female entrepreneurship is an important area of economic growth, it is still challenged by lack of value-adding business opportunities. It goes without saying then, that if participatory development is to succeed in Zambia and South Africa, more research and development is needed in the role that ICTs play enabling female entrepreneurs to engage in value-added enterprises.

#### **2.4.2 Gender theory**

Gender theory, like the participatory development approach, is relevant to the study as it illuminates how women are marginalised in ICTs and development discourse. Gender theory promotes human rights, especially of those that are marginalised in society, by age, race, sexual orientation or sex (women) (Flax 1987:622-623; Mazrui 1992:87-89).

Webster (1995:316) asserts that gender has been theorised into different contexts by feminist thinkers. Gender, first and foremost, can be seen as the sexual division of labour (known as gender structure). Gender can also be seen as the meaning to which people attach and organise social activity (also known as gender symbolism). Lastly, gender can be seen on a personal or individual

level or identity (known as personal gender) (Webster 1995:316). Both gender and technology have redefined and renegotiated with changes brought on by time, and therefore cannot hold one static definition (Webster 1995:317).

The early studies on ICTs in the 1970s focused on men in Britain and the USA, in male dominated occupations, and as such, the effects of computer technology that were studied from a male perspective were thought to have the same effect on all workers. The unequal bargaining of power between women and men was not properly considered (Webster 1995:315). Rakow (1987:1) agrees with this claim by stating that women's communication experiences received little attention until the time when feminist scholars started to show their value, some time in the 1970s. She asserts that sociologists and communication scholars should have paid more attention to the way women use communication technologies. The 1980s brought a challenge to the predominance of male-centred studies in the workplace, to include research on the impact of computers on women's jobs (Webster 1995:318).

Feminist analysis has thus paved the way in offering a corrective to gender-blindness in the development of technologies. Investigation of the development and impact of ICTs must hence take cognizance of the gender relations found in society as a whole (Webster 1995:330).

Rakow and Navarro (1993:144), maintain that there are gender differences in the way cellular phones are acquired and made use of. For instance, when the cellular phone was first introduced on the open market in the United States in the early 1990s, women mostly used it to manage their responsibilities in taking care of their homes and children. On the other hand, men generally believed that women required cellular phones mostly for security reasons (Rakow & Navarro 1993:144, 147). Consequently, it is clear that gender dynamics play an intrinsic role in the study of women's phone consumer habits.

Rakow (1987:1-2) further maintains that the telephone, for instance, is not neutral, but is a gendered technology. Like Webster (1995:315), Rakow (1987:1-2) further asserts that communication technology should not have in the past been defined as not being important to women. Rakow (1987:2) insists that

there are deeper and richer intricacies in the way women use the telephone. They are often depicted humorously and satirically as being obsessed with the telephone. In actual fact, the characterisation of women's use of the telephone is as a result of differences from men in responsibility, interests and personality (Rakow 1987:2).

The foregoing discussion then shows that gender dynamics play an important role when it comes to the study of women in business. In this particular case, gender theory gives insight by shedding light on the research questions at hand.

- On the question as to whether telecommunications (cellular phones) can increase the participation of women in the economy, gender theory postulates that women need equal access to resources, including ICTs, since they have the capability of enhancing development. From a gender theory viewpoint, communication technologies such as mobile phones can also increase women's participation in the economy, if they have equitable access to them and maximise their use.
- Since gender theory deals with gendered use of ICTs, including cellular phones, it proves to be of significance when it comes to investigating the research question on what the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa are (Rakow and Navarro 1993:144). Furthermore, gender theory also aims to correct gender-blindness in developing communication technologies (Webster 1995:315).
- Finally, gender theory postulates that as with the case with most resources in society, women are usually the last people to benefit from various communication technologies. This supposition therefore partially helps to address the research question as to what obstacles female entrepreneurs in Zambia and South Africa face in the use of cellular phones.

## **2.5 CONCLUSION**

Chapter 2, which forms the literature review of the investigation, has discussed what encompasses ICTs, what development is, and the role of ICTs in

development. After the review of literature and analysis of various sources, it can be concluded that cellular phones do have the potential of increasing the participation of women in the economy. Chapter 2 also focuses on some traditional theoretical approaches to development, which were found to fall short in aiding the investigation on the current problem of using ICTs to uplift women's entrepreneurship. Newer contributions from gender theory and the participatory approach to development are more useful. Gender theory and the participatory development model assist in highlighting the fact that gender dynamics play an intrinsic role in the use of ICTs, and that women need to participate more in public policy-making and mainstream development efforts (Burton 2002:43; Rakow and Navarro 1993:144).

Nonetheless, even though the plurality approach seems to hold more tangible solutions to the problem of mainstreaming female entrepreneurship through the use of ICTs, the various efforts made by Zambian and South African national efforts still seem inadequate (African Development Bank Group [s.a.]); H.M. Consultancy Services 2005:22-23). Female entrepreneurship is still largely on the fringes of national economic activities. What remains to be achieved, therefore, is to identify the gaps that have led to the plurality approach not being able to meet its development goals in either country. One such gap that has been identified and needs greater attention and research is the knowledge gap on the use of new technology such as mobile phones in female entrepreneurship, especially in the informal sector. The lack of empirical studies and adequate statistical data on the role of cellular phones in female entrepreneurship in Zambia and South Africa is a huge problem. As such, the literature review on women's entrepreneurship in these two countries has had to be conducted on data that is rather still in the explorative stage of research and not totally complete (South Africa. Department of Trade and Industry 2005:14).

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter outlines the design and research methodology that was employed in this study. The research methodology comprised a literature review, as well as survey research using interviews and questionnaires. The sampling of the population was determined through accidental (also known as convenience) sampling. The method of comparative analysis was used to compare the results that were gathered from the investigation in Lusaka and Gauteng.

Lastly, the chapter discusses the main sources of error found in survey research, and how they were controlled in this particular case. The sources of error identified include: inappropriate selection of statistical techniques and data capturing errors; interviewer effects; high refusal rates and non-response rates; questionnaire error; sampling error and comparative analysis.

#### **3.2 AIMS AND OBJECTIVES**

The first step in this investigation was to determine the aims and objectives of the study. It was determined that the aim was to gather preliminary data in the area of consumer habits of female entrepreneur cellular phone users in Zambia and South Africa. The primary objective of conducting this investigation was to collect information on the use of cellular phones by women entrepreneurs, since the mobile phone has been identified as a powerful tool that can be used to meet development endeavours. One of the principal development goals in both Zambia and South Africa is to bring women's entrepreneurship from the margins of mainstream economic activity through the use of ICTs (South Africa. Department of Communications 2001; Zambia. Ministry of Communications and Transport 2005:17). Therefore, part of the objective of this study was to gather information on the use of mobile phones (which also form part of ICTs), and compare the results between the two countries.

The research question that was investigated reads as follows: “What are the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa that can be identified in order to help move them from the margins of main economic activity to the centre or mainstream?” The following were the sub-problems that emanated from the research question:

- Can telecommunications (specifically, cellular phones) increase the participation of women in the economy?
- What are the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa?
- Are the communication needs of business women in Zambia and South Africa adequately met?
- What are the obstacles that female entrepreneurs in Zambia and South Africa face in the use of cellular phones?
- What are the similarities and differences in the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa?

The above research sub-problems (which also served as the research questions), were formulated in order to gather data on cellular phone consumer habits in women’s entrepreneurship. The research questions were also used to explore the area of women’s entrepreneurship in Zambia and South Africa.

### **3.3 LITERATURE REVIEW**

The second stage of the investigation involved the reviewing of literature. The literature review enabled the researcher to identify the appropriate research methodology. The literature review also revealed that cellular phones have an important part to play in empowering female entrepreneurs. Furthermore, both the national policies of Zambia and South Africa acknowledge the fact that female entrepreneurs are marginalised, and need special attention in order to pull them into mainstream economic activities (South Africa. Department of Communications 2001; Zambia. Ministry of Communications and Transport 2005:47-48).

From the review of literature, it is evident that different viewpoints exist on what development is, as well as the role that ICTs have in development. Additionally, there exist a number of frameworks for the study of development, and current works acknowledge that a lot of these frameworks, such as the modernisation and dependency theories, have proved to have little relevance to bringing about desired developmental results in the less-developed countries (Jussawalla 1992:485).

The development framework that proved to be of most relevance to this investigation is the participatory approach. The literature review also shows that gender theory and some of its postulations are requisite to the investigation of female entrepreneurs' cellular phone consumer habits, in which the gendered use of ICTs is analysed. Furthermore, the review of literature reveals that prices for mobile phone services in Zambia and South Africa are quite steep, and in turn this hampers women's ability to draw on the full potential of mobile technology that can help them move from small-scale entrepreneurship into significant national economic activity.

### **3.4 TARGET POPULATION**

After conducting the literature review, the next stage of the research led to defining the population of female entrepreneurs to be studied in Gauteng and Lusaka. The target population in this study were identified as female entrepreneurs in the informal sector from Lusaka and Gauteng, whose numbers in total reached 115,260 and 350,980 respectively. In this investigation, female entrepreneurs are described as businesswomen in Zambia and South Africa from the informal sector who own businesses in diverse entrepreneurial activity such as retailing, hawking, making and selling of crafts and tailoring (Calling all women entrepreneurs 2005; Education and Training Unit [s.a.]). For the purposes of this study, the target population was further limited to those women in the urban areas of Lusaka and Gauteng that had small enterprises which employed no more than 50 workers.

The tables below indicate the distribution of the female labour forces of Lusaka and Gauteng:

**Table 3.1: Women’s labour force in Lusaka**

Total female working age population	501, 403
Economically active female workers	172,031
Females employed in the formal sector	56,771
Estimated 67% females employed in the informal sector	115,260

(Central Statistical Office 2005a:55, 56, 58, 64).

**Table 3.2: Women’s labour force in Gauteng**

Total female working age population	3,415,000
Economically active female workers	1,526,000
Estimated 61% females employed in the formal sector	930,860
Estimated 16% females employed as domestic workers	244,160
Estimated 23% females employed in the informal sector	350,980

(Statistics South Africa 2006b:27-28; Statistics South Africa 2007:8, 17, 27; Van der Westhuizen, Goga & Oosthuizen 2005:20-21).

### **3.5 RESEARCH DESIGN AND METHODOLOGY**

After the population to be studied was identified, the next step in the investigation was to decide on the research design that would be used to gather data in order to determine the consumer habits of female entrepreneur cellular phone users. It was determined that the investigation would be explorative in nature. In undertaking the explorative study, a survey of female entrepreneurs in both Gauteng and Lusaka was conducted. The survey instrument that was used was a standardised questionnaire. The questionnaire was used as both a self-

administered questionnaire where possible, or as an interview schedule in face-to-face interviewing sessions.

### **3.5.1 Exploratory research**

Very little is known about the consumer and communication needs of Zambian and South Africa businesswomen. For that reason, exploratory research was used, since there is hardly any prior knowledge upon which predictions could be made (Wimmer & Dominick 1994:255).

One of the benefits of explorative research is that it leaves room for both informal and formal methods of data gathering. In this particular study, the researcher adopted an informal approach by commencing with the reviewing of available literature and making telephone calls, visiting and sending e-mails to various places such as CAZ, the Central Statistical Office of Zambia and Statistics South Africa in order to find relevant data. A more formal approach was adopted through the use of a pilot study and structured interviews with women entrepreneurs.

Another advantage of exploratory research is that the results of the research can provide significant insight into a given situation. In this study, the results of exploratory research give some indication to answers from questions such as "why" cellular phones are deemed to increase the participation of women in the economy and; "how" female entrepreneurs use cellular phones; "what" amounts women entrepreneurs spend on cellular phones; "what" the communication needs of female entrepreneurs are and "what" the differences and similarities are, in the mobile phone usage patterns by women entrepreneurs in Zambia and South Africa. The following section looks at the method that was used to draw samples of female entrepreneurs who were interviewed in order to find answers to the above-mentioned questions.

### **3.5.2 Survey research**

In this study a survey was carried out in order to gather data from female entrepreneurs in the informal sector in both Zambia and South Africa. Survey research can be described as the gathering and scrutiny of responses from samples of people to polls and questionnaires that are designed to draw out their opinions, attitudes, and sentiments on a particular subject (Wrong 2007). Conversely, Garson (2007), critiques survey research as a method which falsely coerces respondents to create opinions. He maintains that this leads to the masking of the complexity of conflicting views and opinions that respondents have, and survey items have a tendency to poorly predict actual behaviour. He further asserts that survey research is prone to survey error, which includes faults in sampling, coding, tabulating, data processing, interviewer bias, researcher bias, and data misinterpretation (a discussion on how some of these errors were dealt with and controlled is presented towards the end of this chapter).

On the other hand, surveys also have a number of advantages. To begin with, the survey research method was chosen in this investigation as it is an efficient way of data collection from huge populations, since samples can be drawn for survey purposes. Thereafter, inferences from the samples can be drawn and applied to the rest of the population. Secondly, surveys offer flexibility in the sense that a range of information can be gathered, such as attitudes, values, beliefs, and past behaviours. Since surveys are standardised, they are also relatively free from several types of statistical errors. Furthermore, surveys are also fairly easy to conduct (Wimmer & Dominick 2006:179-180).

In this investigation, a standardised questionnaire (found in Appendix B), that addresses the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa was distributed to a sample of 50 women in Gauteng Province and 50 women in Lusaka Province. Where relevant, Likert-type scales that rank answers (for example on a scale of 1 to 5), were used to measure the women's attitudes and opinions in the survey. Likert scaling is a common method of measurement that is used for measuring various personality, social, and psychological attitudes (Babbie 1998:167-177). Essentially, the Likert scale

is a survey method that requires respondents to measure the strength of their reactions to a number of statements, and when faced with a statement in the questionnaire, respondents choose their answer from a scaled range of responses (Babbie 1998:167-177). For example, in question 6 (Appendix B), respondents were asked to choose from the following responses: Cheap; reasonable; not so reasonable; expensive; cannot say; in response to their views on the prices charged for cellular phone services.

Owing to the fact that the sample was drawn from across different sectors, the female entrepreneurship under study consisted of women with differing levels of education, age and income levels. Nonetheless, the study focussed on the women entrepreneurs' use (and lack of use) of mobile phones in: Contacting suppliers, employees and customers; the use of cellular phones for social purposes like reaching children and family; the women's use of other people's mobile phones as well as the extent to which other people borrow the women's phones; the cellular phone features used mostly by women, the extent to which the women are able to afford mobile phone services, as well as the extent to which they are satisfied with the services on their cellular phones.

The number of years for which the female entrepreneurs have been in business ranged from 0 to more than 20 years. Whilst some female entrepreneurs had employees, others had none at all. In this study, the female entrepreneurs who were included in the research survey were limited to those with no more than 50 employees, as the focus was on micro and small business owners.

### **3.5.3 Self-administered questionnaires**

A standardised self-administered questionnaire was used to collect information from the respondents, and the same questionnaire was used to interview those respondents who were illiterate, or were unable to answer the questions on their own. In order to speed up the collection time of data from the units of analysis, two research assistants conducted the interviews. The research assistants were given the task of distributing the self-administered questionnaires to the respondents and collecting the completed questionnaires. They then handed the

completed questionnaires to the researcher for data analysis. Conversely, the downside to making use of the two research assistants (one in Lusaka and the other in Gauteng), was that the cost of conducting the research increased, since the research assistants had to be paid, even though a lot of time was saved. On the other hand, whenever research workers are used to help in any given research, their reliability is brought into question. In order to guard against the possibility of the research assistants being unreliable, the researcher took a sub-sample of 4 respondents to verify some of the information in the completed questionnaires through replication (Babbie 1998:133).

In this study, a self-administered questionnaire of five pages (found in Appendix B) was used to gather information from female entrepreneurs. One of the biggest benefits of using self-administered questionnaires is that this type of survey is not very costly. Another advantage of using self-administered questionnaires in this survey is that respondents could complete the questionnaires in privacy without the physical intrusion of the researcher. However, the downside to self-administered questionnaires is that respondents do not have the privilege of clarifying any issues that may not be clear to them right away, since the researcher is not present (Leedy 1993:187).

A structured self-administered questionnaire was used to collect information from the respondents as it is also relatively inexpensive. Since the questionnaire used was structured, it was also easier to draw comparisons from uniform responses to both open-ended and closed-ended questions. By contrast, some important information may not have been elicited from the respondents since they were not allowed much freedom to express themselves (Welman & Kruger 1999:173).

The following is the structure of the questionnaire that was used to collect data in this study. The questionnaire was primarily divided into two parts; the first section contained questions that were designed to elicit demographic information. This section included questions on the business sector to which the respondents belong; their age; number of years in business; number of employees; their education level and the income generated from the business. The second part of the questionnaire was specifically designed to respond directly to the research questions.

### **3.5.4 Structured interviews**

Interviewing is a method of collecting information from subjects by asking them specific questions that are supposed to yield answers to research questions (Leedy and Ormrod 2005:187). Welman and Kruger (1999:166) define structured interviews as the kind of interviews that require the interviewer to pose questions from a previously compiled questionnaire to a respondent, face-to-face. The interviewer then records the interviewee's responses. In structured interviews, the interviewer sticks to the predetermined questions and does not deviate from them. The restriction of the interviewer to the set questionnaire can be seen as a positive step, especially in this investigation where the surveys from Zambia and South Africa had to be compared, standardisation was of utmost importance.

The decision to use structured interviews in this investigation was also made on the basis of time constraints. Unlike using unstructured interviews that allow for topics being investigated to be probed at a deeper level, structured interviews allow for data to be collected more swiftly, as they do not deviate from the interview schedule. Moreover, structured interviews prevent interviewers (in this case from Zambia and South Africa) from collecting information which is not comparable (Welman & Kruger 1999:196).

In this instance, the choice of using questionnaires in personal interviews was made on the basis of them being flexible, as well as leaving room for respondents to understand the questions and purpose of the study fairly. In addition, structured interviews also tend to produce results with reasonable accuracy (Mouton 2001:186). In this investigation, 57 respondents (21 from Zambia and 35 from South Africa), who did not take the time to complete the questionnaires on their own, had to be interviewed face-to-face. The rest of the women entrepreneurs were able to complete the self-administered questionnaires without much help from the research assistants. Before conducting interviews, Leedy (1993:194-195) recommends that a pre-arranged time and date should be agreed upon between the researcher and the interviewee. Leedy (1993:194-195) also advises the interviewer to be prompt and to follow the agenda on the interview. It was imperative before conducting

the interviews, that both the researcher and the research assistants be familiar with the following guidelines for effective interviewing as recommended by Leedy and Ormrod (2005:187-188):

- The interviewees have to be representative of the population – the research assistants were encouraged to interview women from different business sectors.
- Suitable locations should be found for the interviews – in this investigation, the interviews were conducted at the women's places of work.
- Permission for interviews should be granted first – the interviewers were instructed to first introduce themselves and explain what the study is about, and then obtain permission from the interviewees before conducting the interviews.
- Rapport between the interviewees and interviewers should be established and maintained – the interviewers managed to create rapport with the interviewees, and this also helped in the speedy collection of data.
- Focus has to be on the actual issues at hand and not on abstract issues – the interviewers were instructed to remain focussed at all times.
- Words should not be put in the interviewees' mouths (creating researcher biasness) – the interviewers were instructed to keep to the interview schedules at all times.
- Interviewers need to keep reactions to themselves – the interviewers had to remain professional at times.

To this end, the two research assistants were informed of the above-mentioned concerns before they distributed the questionnaires and embarked on carrying out the interviews.

### **3.6 SAMPLE SELECTION**

The selection of a representative sample was the step that followed after designing and constructing the survey instrument. First the sampling method had to be chosen, and then the size of the sample decided upon.

#### **3.6.1 *Accidental sampling***

In order to identify the sample of female entrepreneurs in Lusaka and Gauteng, the sampling method that was used is a non-probability method called accidental or convenience sampling. The actual sample in this study was selected as follows: The sample of female entrepreneurs (in this investigation limited to women in the informal sector who run businesses with no more than 50 employees), was drawn from the finite population of female entrepreneurs in Zambia and South Africa. What transpired was that the two research assistants used only 1 female entrepreneur each, to identify 50 other acquaintances. In both Zambia and South Africa, the result was that the 100 female entrepreneurs that were selected in the sample were limited to the cities of Lusaka (in Lusaka Province) and Johannesburg, Midrand and Pretoria (in Gauteng). Subsequently, one of the greatest constraints of the selected sample was that it was drawn from only small parts of the cities and did not cover wider areas.

Accidental sampling was identified as the appropriate method of sample selection in this study, since it was applied with the proponent of relying on the individuals in the survey to identify their counterparts. The method of relying on individuals to identify their counterparts that was employed in accidental sampling is similar to the proponent of involving people at grassroots' level (in this case the female entrepreneurs themselves), founded in the participatory model of development. Since participatory theory is being practised in both Zambia and South Africa, and in concurrence with gender theory women in both countries have been identified as being marginalised, marginalised female entrepreneurs were thus called upon to identify their counterparts for inclusion in the sample using the accidental approach.

Through the accidental or convenience method, one was able drastically to reduce the research costs, as it was relatively easy to rely on the initial women entrepreneurs to make referrals to other business women (Trochim 2006). The accidental sampling approach also enabled a radical increase in the pace of identifying samples (both in Lusaka and Gauteng), where business women identified others like them. Therefore, the data collection exercise could be commenced sooner than anticipated, since prospective respondents were able to be contacted through women entrepreneurs in their network with whom they were already familiar.

Accidental sampling is also known by other names such as haphazard or convenience sampling (Trochim 2006). It can be referred to as a sampling method in which the researcher chooses a requisite number of research participants from the cases that are available (Burger & Silima 2006:92). In this study, the researcher selected 100 female entrepreneurs in the informal sector to be included in the survey from the total number of 115,260 female entrepreneurs in Lusaka and 350,980 female entrepreneurs in Gauteng.

There are a number of advantages that come with accidental sampling. To begin with, it uses research participants who are readily available for inclusion in the sample (Trochim 2006). Accidental sampling also comes with the benefit of being economical, especially in instances where resources are lacking to do random sampling, or survey participants are not easily accessible. Through accidental sampling, in-depth results can also be drawn in a short period of time as respondents' trust can be won over more easily when they make referrals to others (as was the case in this study), unlike through other methods. Accidental sampling is also a sampling design that is less complicated than other designs, as it does not require rigorous sampling selection procedures. Accidental sampling is also commonly used in qualitative research where the main aim is to gain in-depth description and understanding of a research problem, rather than focussing on the *quantity* of data that can gathered through other sampling designs (Burger & Silima 2006:92).

However, as a non-probability sampling technique, the accidental method does not allow the degree to which the sample differs from the population to be

established. To a certain extent, it introduces bias since as a method of sampling it reduces the probability of drawing a sample that is a good representation of the whole population (Sampling methods 2007). Burger and Silima (2006:92-93) also criticise accidental samples on the issue of representativeness in stating that, since the sampling elements are not randomly drawn, there is the likelihood of most accidental samples being biased. They therefore advise on taking caution when making conclusions from conveniently drawn samples.

### **3.6.2 Sample size**

The non-probability method of accidental sampling means that although the probability of each unit of analysis being included in the sample could not be fully established, the method of sampling could be replicated and similar responses received (Sampling methods 2007).

The cost implications also had to be borne in mind while deciding on the sample size, while at the same time ensuring that the desired level of accuracy was not compromised (Mouton 2001:124). Taking into consideration the reasons given for choosing a sizeable sample, the total size of the sample was determined at 100 female entrepreneurs: 50 from South Africa from a population of 350,980 women in the informal sector in Gauteng and, 50 from Zambia from a population of 115,260 women in the informal sector in Lusaka. The sample may not be viewed as representative, but it provides some insight into the existing and small pool of women entrepreneurs. After establishing the sample size, the survey instrument (questionnaire) had to be pre-tested, as discussed in the next section.

## **3.7 PILOT TEST**

Pilot tests are an essential step in survey research, as they often illuminate ambiguities and various sources of bias and error. Moreover, pre-testing of questionnaires helps to deal with problems such as misinterpretations of questions, sections where the respondents wanted to say more, or questions

which seemed sensitive. Pilot testing also helps to check for such practical things as whether there is enough blank space provided for open-ended items and instructions for returning or collecting the questionnaire (Garson 2007).

In this survey, in order to refine the data-gathering procedure, a pilot test was conducted on four businesswomen (Wimmer & Dominick 2006:139). The test revealed that the initial questionnaire had to be redesigned in order to accommodate the Zambian currency (the Kwacha) in question 7. In this regard, two separate questionnaires were distributed in Zambia and South Africa, with the only difference being question 7 that had figures in Rand (for the South African survey), and in Kwacha (for the Zambian survey).

### **3.8 DATA ANALYSIS**

The survey was administered in Gauteng and Lusaka by the two research assistants after the pilot test was completed and the appropriate changes made to the questionnaire. The data collected from the survey then had to be analysed and interpreted.

Comparative analysis as conducted in this study is discussed below, while the findings of the research and the interpretation of the findings are presented in detail in Chapter 4.

#### **3.8.1 Comparative analysis**

In comparing the research results between women entrepreneurs in South Africa and Zambia, a method of comparative analysis known as cross-case analysis was employed. Cross-case analysis can be described as the technique in which data in one case (in this instance, Zambian female entrepreneurs), is compared to other cases (South African female entrepreneurs) (Foster [s.a.]).

Since two cases were conducted in this study, cross-case analysis had to be carried out by making matrices of various data sets that dealt with particular

research questions (for example the communication needs of female entrepreneurs). The matrices for the different data sets were then compared in the Zambian case and the South African case. Cross-analysis was especially useful in this study since data could be analysed, and then conclusions made for each country, after which the results could be compared to one another. From there on, similarities and differences between the consumer habits of female entrepreneurs in the two countries could be established. Not only that, discoveries that were not foreseen in the initial stages on the research were made when the patterns in cellular phone usage by business women in the two countries were compared. The next section looks at the main sources of error found in survey research, and explains how they were handled in this study.

### **3.9 MAIN SOURCES OF ERROR**

According to Mouton (2001:153), the following are some of the main sources of error in survey research: sampling error, questionnaire error; high refusal rates; high non-response rate; interviewer effects; respondent effects; data capturing error and inappropriate selection of statistical techniques. The following discussion focuses on these common sources of error, and how they were controlled in this study.

#### **3.9.1 *Sampling error***

As stated in the discussion on the sampling technique of accidental sampling that was employed in this study, accidental sampling is a non-probability method of sampling, which proved to be convenient and economical. As such, the accidental sampling method could not allow for the establishment of the sampling error, that is, an estimation of the unrepresentativeness of the sample to the population (Welman & Kruger 1999:48-49). The representativeness of the sample's exact properties and in the same proportions as that of the population could not be ascertained, since the sampling procedure in this case required subjective and not random selection of sampling elements (Sampling methods 2007; Trochim 2006). In a bid to overcome the problem of not being able to

measure the sampling error, the sample size had to be as big as possible. Given the cost limitation encountered in this study (in that the investigation had to be carried out in two different countries and two research assistants had to be paid), the largest sample that could be selected was 100 female entrepreneurs.

In an attempt to show the extent to which the sample was representative or unrepresentative of the population, the table below was drawn up. Table 3.3 shows the number of female entrepreneurs in the informal sector in Lusaka and Gauteng, in relation to the number of female entrepreneurs that were included in the sample:

**Table 3.3: Sample representativeness**

<b>Province</b>	<b>No. of female entrepreneurs</b>	<b>No. of respondents</b>	<b>% of respondents in relation to no. of female entrepreneurs</b>
Lusaka	115,260	50	0.043%
Gauteng	350,980	50	0.014%
<b>TOTAL</b>	<b>466,240</b>	<b>100</b>	<b>0.057%</b>

General guidelines for sampling sizes state that from a population size of about 400,000, the percentage size of the sample should be between 0.25% and 0.5% (Burger & Silima 2006:96-97). In this case the sample size came to 0.057%, which shows that in terms of numbers, the sample cannot be deemed to be actually representative of the population. Nonetheless, as confirmed by Burger and Silima (2006:92), accidental sampling which was employed in this study, was mainly used for the purposes of obtaining an in-depth description and understanding of the research problem at hand. Therefore, even though the research findings cannot be generalised on a broad scale due to the small size of the sample, valuable information for the purposes of understanding the role that cellular phones play in women's entrepreneurship in South Africa and Zambia was attained.

### **3.9.2 Questionnaire error**

In order to minimise and control for errors in the design of the questionnaire, the following steps as recommended by Wimmer and Dominick (2006:183-185) were taken. To begin with, the questions had to be made as clear as possible, avoiding technical, difficult and specialised words and acronyms. The questions also had to be short and straight to the point. The purposes of the research had to be upheld in designing questions that would elicit responses to the research questions at hand. Double-barrelled questions, as well as biased words and terms were avoided. Leading questions were also avoided, as well as questions that asked for highly detailed information. In addition, the questionnaire did not include potentially embarrassing questions. Even though all these steps were taken in the designing of the questionnaire, the questionnaire was still tested in a pilot study of four female entrepreneurs, whereupon further improvements were made to it. Some of the improvements that were made after the pilot study included making the questions as clear and simple as possible, as well as specifying the currencies for the two countries in which the study was undertaken.

### **3.9.3 High refusal rates and non-response rates**

Mouton (2001: 153) lists high refusal rates and high non-response rates as some of the main sources of error in survey research. However, these particular problems were not encountered in this study. Nonetheless, contingency measures were still taken, in that the research assistants were instructed to distribute the questionnaires with a covering letter that explained what the survey was about, and to introduce themselves in a cordial, and yet professional and polite manner. Furthermore, the research assistants were instructed to build a rapport with the female entrepreneurs that they were interviewing. In order to avoid high non-response rates as recommended by Leedy (1993:187-192), the date that each questionnaire was sent was recorded, so that after a predetermined period (of two weeks), follow-ups of those individuals who did not return the questionnaires could be made.

### **3.9.4 Interviewer effects**

In order to avoid the problem of interviewer effects or interviewer bias, it was ensured that the research assistants who were selected to carry out the interviews were already experienced in the field of conducting interviews in survey research. Moreover, the research assistants were briefed on what this particular study entails, as well as what is expected of them. In addition, they were instructed to conduct trial-runs before conducting the actual interviews, in order to obtain clarity on issues that they may not be clear about. Furthermore, the research assistants were encouraged to report any problems that they encountered during the interview period.

### **3.9.5 Inappropriate selection of statistical techniques and data capturing errors**

Welman and Kruger (1999:212) state that statistical techniques serve the purpose of assisting the researcher to reach justifiable decisions on whether data that was obtained supports the hypotheses that were formulated at the beginning of the research. In this study, the selection of the statistical techniques and data capturing methods that were used were carefully selected in order to ensure that they could be replicated to produce the same results by another researcher. Data coding from the questionnaire was done in SPSS. Thereafter, various reports could be drawn in analysing the answers received from the respondents. In order to control for any errors, the data coding procedure in SPSS was done thrice (twice by the researcher and once by a statistician) so as to ascertain reliability.

## **3.10 CONCLUSION**

This chapter has focussed on the research methodology that was used in investigating the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa. The chapter outlined the various steps that were taken in carrying out the survey research as determining study aims and objectives; conducting a literature review; defining the population; designing and

constructing the survey instrument; sample selection; pilot testing; administering the survey and analysing, interpreting and communicating the research results.

The explorative method through which the study was conducted in order to gather preliminary information on the needs, interests and patterns of mobile phone usage by women entrepreneurs was scrutinised. Since there are very few empirical studies that focus on female entrepreneurs in Zambia and South Africa, the approach used in this study was a typical exploration approach. The justification of this approach is also based on the fact that there is a need to know the consumer habits of female entrepreneurs' cellular phone habits in Zambia and South Africa, as prior research on the subject is lacking. The exploratory approach was also selected in view of gathering information that can be used for future research that can be more conclusive in identifying the communication needs of businesswomen (Babbie 1998:90).

The specific data collection methods used were a standardised questionnaire (which was also used for the structured interviews), that was sent to 100 women who were identified through the accidental sampling method. Comparative analysis was then carried out in order to compare the results between women entrepreneurs in Zambia and South Africa. A discussion on the common sources of error in survey research and how they were dealt with in this study was also presented in this chapter. The actual results and the interpretation thereof are discussed in the next chapter – Chapter 4.

## **CHAPTER 4**

### **FINDINGS OF THE INVESTIGATION**

#### **4.1 INTRODUCTION**

The findings of the investigation on female entrepreneurs' cellular phone habits in Zambia and South Africa are presented in this chapter. The first part of this chapter deals with the response rates from both Zambia and South Africa, and how they reflect on the overall research. The second part focuses on the research results from the individual countries. The results are discussed firstly based on the biographical data of the respondents, and then in direct relation to the research questions that were investigated.

The results that were gathered from the interviews demonstrate the need for service improvement in both countries, as well as the reduction in costs for women to be able to use their cellular phones in business more effectively. The results also highlight the need for more women to gain access to mobile phone services such as e-mail and cellular phone banking, so as to improve their overall business operations and thereby contribute more substantially to the national economy.

#### **4.2 RESPONSE RATES**

The responses received from both Gauteng and Lusaka were 92 (43 responses were received from Lusaka and 49 from Gauteng) – missing the target of a total 100 responses by only 8.

Table 4.1 represents the response rate on the number of questionnaires (92) that were analysed in this study, in relation to the total sample of 100 female entrepreneurs that were identified in Lusaka and Gauteng.

**Table 4.1: Response rates**

<b>FEMALE ENTREPRENEURS</b>	<b>TARGET SAMPLE</b>		<b>SAMPLE REALISATION</b>	
	No. of respondents	Percentage	No. of questionnaires received	% in relation to questionnaires sent
Lusaka	50	50%	43	86%
Gauteng	50	50%	49	98%
<b>TOTAL</b>	<b>100</b>	<b>100%</b>	<b>92</b>	

The response rates of 86% in Lusaka, and 98% in Gauteng were high enough to allow inferences to be drawn from them (Leedy & Ormrod 2005:192-196). The high response can be directly attributed to the accidental (convenience) sampling technique, in which the initial number of female entrepreneurs that were identified made referrals to their counterparts, who were willing to participate in the survey. Another reason for the significant response could be due to the cordial relations that formed between the respondents and the research assistants who distributed and collected the questionnaires.

### **4.3 SURVEY RESULTS**

The following is a discussion on the findings of the study from Zambia and South Africa. It needs to be pointed out that since the same questionnaire was used to collect data from both the women who answered the questions on their own and those who were interviewed face-to-face, the tabulation of the data collected was not separated.

#### **4.3.1 Biographical information**

The following table (table 4.2), shows the distribution of female entrepreneurs in Lusaka and Gauteng according to business sector. The responses from South Africa, at 49 in number, were slightly higher than those from Zambia where only 43 were received. Nonetheless, the number of responses from both countries was close enough to the required samples of 50 units of analysis in each

country.

**Table 4.2: Distribution of respondents according to business sector**

**Crosstab**

Count		In which business sector are you involved in?							Total
		Agriculture / Fishing	Catering / Accommodation	IT / Telecoms	Retail	Textiles / Clothing	Travel / Tourism	Other	
Country	South Africa	1	9	7	5	6	3	18	49
	Zambia	7	6	2	11	12	3	2	43
Total		8	15	9	16	18	6	20	92

According to the data as displayed in table 4.2 above, the majority of Zambian women entrepreneurs interviewed in this survey were concentrated in the retail, textiles and clothing industries (with the retail sector having 11 respondents and the textiles and clothing sector 12 respondents). According to the table, 7 respondents fall under agriculture and 6 under catering and accommodation. The lesser number of respondents (2) were from the IT and telecommunications sectors, and the category of 'other' business sectors also had only 2 respondents. The data collected shows that female entrepreneurs in Lusaka need to penetrate the IT and telecommunications sectors where they are still marginalised.

In South Africa, most female entrepreneurs interviewed (9) were from the catering and accommodation industries. In contrast to Zambia, a higher number of women (7) were from the IT and telecommunications industries. The remainder of respondents that stated that they were from other industries, consisted of women from diverse sectors such as health, education, recruitment and manufacturing industries. Unlike Zambia that had 7 respondents from the agricultural sector, the results from South Africa only had 1 respondent who declared that she was from that sector. This may be because the survey was conducted in a highly urbanised area, where there not much agricultural activity takes place. In all, there appears to be an almost even spread of the women who were interviewed across the diverse business sectors, making allowance for generalisations of the research results to be made to female entrepreneurs in all

business sectors of informal employment in Gauteng.

**Table 4.3: Distribution of respondents according to number of years their business has been in operation**

**Crosstab**

Count

		How long have you been running your business?					Total
		0-4 years	5-9 years	10-14 years	15-20 years	More than 20 years	
Country	South Africa	34	13	2	0	0	49
	Zambia	21	11	8	2	1	43
Total		55	24	10	2	1	92

The table of results above shows that the highest number of women interviewed in Zambia and South Africa (21 and 34) have only been running their businesses for the length of time between 0 to 4 years. Both countries had the second largest number of women (South Africa 13 and Zambia 11) as those who have been in business between 5 and 9 years. The table also shows that 8 Zambian respondents have been running their current businesses for 10 to 14 years, and 2 for 15 to 20 years. Only 1 Zambian respondent indicated that her business has been in operation for more than 20 years. In South Africa, only 2 women have been in business for 10 to 14 years, and none of the women have been running her business for more than 15 years.

None of the women in South Africa indicated that they have had their business for more than 20 years. The reason for this could be attributed to the fact that prior to the period around 1994 women faced political restrictions which would have impacted on any venture into business. From a plurality and gender equality point of view, this data also shows that women from Gauteng in the small-scale business sector need to access more sustainable business opportunities that will permit growth over time from primary and secondary activities into mainstream economic ventures. Finally, the data to some extent indicates demographic trends where natural ageing of the population gives rise in decreases in economic activity and involvement in entrepreneurial ventures.

The following table displays the data received from women entrepreneurs on the number of employees that they have.

**Table 4.4: Distribution of respondents according to number of employees**

**Crosstab**

Count

		How many employees do you have?						Total
		None	Between 1-5	Between 6-10	Between 11-15	Between 16-20	More than 20	
Country	South Africa	14	23	3	4	1	4	49
	Zambia	17	22	4	0	0	0	43
Total		31	45	7	4	1	4	92

The table above (table 4.4) shows that 17 Zambian respondents declared that they have no employees. The remaining 26 women in Zambia indicated that they have between 1 to 10 employees. None of the Zambian interviewees indicated that they have more than 10 employees. The women who were interviewed were therefore able to meet the criteria of being small business owners, as set out in the purposes of this study (as indicated in Chapter 3, under heading 3.4).

Table 4.4 also shows that 23 respondents from Gauteng have between 1 and 5 employees. Like Zambia, the second highest number of women (14) has no employees at all. The remainder of respondents are those with employees ranging in number from 6 to more than 20. Unlike the data received from Zambia, where none of the interviews had more than 10 employees, their South African counterparts have more employees, with 4 declaring that they have more than 20 employees. The following table displays the women entrepreneurs' education levels:

**Table 4.5: Distribution of respondents according to highest level of education**

**Crosstab**

Count		What is your highest level of formal education?					Total
		Four year degree/diploma or other qualification (or higher)	Three year degree/diploma/certificate or other qualification	One or two year(s) diploma/certificate	Grade 12 or Standard 10	Lower than Grade 12 or Standard 10	
Country	South Africa	21	12	9	4	3	49
	Zambia	3	3	10	19	8	43
Total		24	15	19	23	11	92

From the number of female entrepreneurs interviewed in Zambia, 8 had an education level that is lower than Grade 12 (or Standard 10). The remaining 35 interviewees all had Grade 12 level of education or higher. This illustrates the general tendency of women with formal schooling to start their own business ventures in Lusaka, the country's capital, where entrepreneurial activity is both easier due to an urbanised market and, perhaps a necessity, owing to limited opportunities for formal employment. To some extent, this result can be extrapolated to women in other areas of Zambia, especially where there is migration from rural, subsistence economies to urban and semi-urban areas.

In Gauteng, a sizeable proportion of the interviewees (21) have 4 or more years of tertiary education. Only 3 of the interviewees have less than 12 years of education. This shows that the majority (46) of the women in the South African survey have got at least Grade 12 or Standard 10 level of education. The total number of women interviewed with tertiary education of 3 or more years was 33. This is much higher than that of the women in Lusaka where the figure only stood at 6.

The following table demonstrates the findings on how the female entrepreneurs interviewed in Gauteng and Lusaka view the levels of income from their businesses:

**Table 4.6: Distribution of respondents according to how they view their income**

**Crosstab**

Count		How much is the income from your business?					Total
		High income	Medium income	Low income	In debt	Cannot say	
Country	South Africa	8	25	11	0	5	49
	Zambia	2	16	19	3	3	43
Total		10	41	30	3	8	92

The table above (table 4.6), indicates that 3 respondents from Zambia reported that they could not divulge information on their income. Only 2 of the Zambian respondents revealed that they view the income from their business as high. The popular response by 19 of the respondents was that their income is low, and 16 view their income as medium. Only 3 of the interviewees reported that they were running their business on a loss. The fact that 35 (slightly over 80%) of the respondents in Lusaka reported that they have an education level of Grade 12 or higher, points to the lack of employment opportunities for women in the formal sector. As confirmed by the Central Statistical Office of Zambia (2005b), 88% of those employed in Zambia are in the informal sector. Women in Zambia therefore find it much easier to hold their own in the informal sector where small businesses can be established without rigorous administration. These findings also illuminate the need to engage women more in public policy-making and mainstream development efforts as stipulated in the plurality approach, since they are still in the fringes of main economic activity (Burton 2002:43; Rakow and Navarro 1993:144).

The number of interviewees in Gauteng that regard their income as high came to 8, while the majority (25) claim that their income is medium. A further 11 respondents in Gauteng reported that their income is low, and none that their business is in debt. The remaining 5 respondents could not disclose their income levels. The total number of women in Gauteng who regarded the income from their businesses as low came to 11, compared to their counterparts in Lusaka who were more pessimistic as 22 viewed their income as either low or in debt.

### 4.3.2 The participation of women in the economy by using cellular phones

The findings in this investigation show that female entrepreneurs in Lusaka and Gauteng actively use mobile phones in their day-to-day to business operations, thus highlighting the important link between ICTs and economic participation. Indeed, cellular phone possession by the female entrepreneurs interviewed is high, with an overwhelming 97,8% affirming that they own mobile phones (see table 4.7 which follows next as well as Appendix C):

**Table 4.7: Cellular phone possession by female entrepreneurs and payment of bills**

		Do you have a cell phone?				Total	
		Yes	No				
Country	South Africa	48	1			49	
	Zambia	42	1			43	
Total		90	2			92	
		Why don't you have a cell phone? Please choose all that apply.					Total
		I do not want one	I cannot afford one	I do not know how to use cell phones	Other reason/s	No response	
Country	South Africa	0	0	1	0	48	49
	Zambia	0	1	0	0	42	43
Total		0	1	1	0	90	92
		How many cell phones do you have?			Total		
		One	More than one	Do not have cell phone			
Country	South Africa	34	14	1	49		
	Zambia	33	9	1	43		
Total		67	23	2	92		
		Who pays your cell phone bills?					Total
		Yourself	Your spouse/partner /friend	The bill is shared	Cannot say	No response	
Country	South Africa	46	1	0	1	1	49
	Zambia	32	8	2	0	1	43
Total		78	9	2	1	1	92

Table 4.7 above contains responses to four questions that were pertinent to the issues of mobile phone possession by female entrepreneurs and the person/s responsible for paying the bills. As illustrated in table 4.7 above, the one interviewee in Lusaka that does not have a cellular phone gave the high cost of acquiring a mobile phone as the greatest hindrance. The table also shows that 32 of the women entrepreneurs who own mobile phones in Lusaka pay their own mobile phone bills, while 8 have their bills paid on their behalf, and 2 share their bills with others. These figures illustrate that the majority of women (42) in the survey in Lusaka own mobile phones, and most (32) also pay their own bills. This could be taken as sign of increasing financial independence on their part. The fact that most women in business possess cellular phones is an indication that the cellular phone is fast becoming an important and indispensable business tool. Moreover, 9 Zambian respondents indicated that they possess more than one mobile phone. Table 4.9 (discussed in the next two pages) also confirms that cellular phones have the potential of increasing women's participation in the economy, since 36 (over 80%) of the women interviewed in Zambia reported that they use their mobile phones for business purposes.

The majority of women (48) interviewed in Gauteng, South Africa, affirmed to possessing cellular phones. The respondent that does not possess a mobile phone stated she does not have a cellular phone because she does not know how to use one. A further number (14) of those that responded declared that they have more than one phone each. The fact that 48 of the women who were interviewed possess cellular phones shows the value attached to cellular phones by female entrepreneurs. Like the case in Lusaka, table 4.7 also shows that the majority of women in Gauteng (46) pay their own bills, while 1 woman has her bills paid for on her behalf. Like the situation in Lusaka, the fact that most of the women in the study affirmed to owning their own mobile phones and paying their own bills, proves that mobile technology is seen as an important asset in women's entrepreneurship.

**Table 4.8: Preference for other communication media by female entrepreneurs**

		Would you prefer to make use of other means of communication other than your cell phone?			Total		
		Yes	No	No response			
Country	South Africa	40	8	1	49		
	Zambia	28	14	1	43		
Total		68	22	2	92		
		If you answered "yes" to question 9 above, what other means of communication would you rather use? Please choose all that apply:					Total
		Landline	Fax	Internet	Other, e.g. e-mail, post	No response	
Country	South Africa	21	11	14	3	0	49
	Zambia	5	5	22	1	10	43
Total		26	16	36	4	10	92

It is imperative to point out that some respondents chose *more than one* communication medium as their preference. Therefore, the number of responses received in this particular question exceeds the actual number of respondents who stated that they would prefer to make use of other means of communication (as shown in the second part of table 4.8).

Table 4.8 shows that in Lusaka, 28 respondents show a preference for other means of communication. The table also shows that 22 Zambian respondents show an interest in using the Internet. The remaining respondents either prefer landline telephones (5) or faxes (5), and 1 respondent stated that she would actually prefer to make use of ordinary post. Female entrepreneurs in Lusaka are keen on using growing technology such as the Internet, but most of them do not have easy access to it. The respondents who showed a preference for landline telephones did so, on the basis of them being slightly cheaper than

cellular phones, and there being less congestion on telephone lines than on cellular phones. The following table, 4.9, shows that an overwhelming number (36) of female entrepreneurs use cellular phones for business purposes in Lusaka. This fact indicates the importance of equipping female entrepreneurs with ICTs such as mobile phones and the Internet on a wider scale, in order to increase their participation in mainstream economic activities.

Table 4.8 shows that 2 respondents (1 in Lusaka and 1 in Gauteng), did not state whether or not they prefer to make use of other communication media. In Gauteng, a high number (40) of the female respondents stated that they would prefer to make use of the other communication media, and not only their mobile phones. The table also shows that the other communication means preferred are: landlines (preferred by 21 women); the Internet (14); and fax, which 11 of the respondents prefer; and the remaining 3 who prefer other means of communication reported that they would prefer to use e-mail.

The fact that 21 interviewees prefer using landlines suggests that they find it a cheaper means of communication than mobile phones. Moreover, the fact that 14 showed a preference for and an interest in the Internet, demonstrates their awareness of this communication technology. The fact that women entrepreneurs in Gauteng are keen on various communication technologies is proof that they recognise the value of ICTs.

The next table shows the usage patterns of mobile phones by women entrepreneurs in Gauteng and Lusaka, and also demonstrates the usage patterns of phones in their business, showing that cellular phones are indeed becoming requisite in female entrepreneurship, as well as family and social networks.

**Table 4.9: Cellular phone usage by female entrepreneurs**

		Do you use your cell phone for business purposes?															Total			
		Yes					No					No response								
Country	South Africa					41						7						1	49	
	Zambia					36						6						1	43	
	Total					77						13						2	92	
		For what purposes do you use your cell phone? Please rank them from 1 (most often), 2 (often) to 3 (hardly ever):															Total			
		To contact suppliers (most often)	To contact suppliers (often)	To contact suppliers (hardly ever)	To contact customers (most often)	To contact customers (often)	To contact customers (hardly ever)	To contact employees (most often)	To contact employees (often)	To contact employees (hardly ever)	To contact friends (most often)	To contact friends (often)	To contact friends (hardly ever)	To contact family (most often)	To contact family (often)	To contact family (hardly ever)		To contact your children (most often)	To contact your children (often)	To contact your children (hardly ever)
Country	South Africa	3	1	3	3	1	2	4	2	3	5	5	0	8	1	0	6	1	0	48
	Zambia	8	0	1	5	0	2	1	3	1	3	4	1	4	2	2	1	3	1	42
	Total	11	1	4	8	1	4	5	5	4	8	9	1	12	3	2	7	4	1	90

Table 4.9 shows that female entrepreneurs in Lusaka and Gauteng use their mobile phones to reach suppliers, customers, and employees. The table also shows that women entrepreneurs use their mobile phones to communicate with others outside their business scope such as friends, families and children. The two non-responses to the question on whether cellular phones are used for business purposes as observed in the table above, are due to the fact that two respondents in the survey do not possess phones.

Table 4.9 also shows that in Lusaka, 8 respondents indicated that they communicate with suppliers ‘most often’, over and above the 4 who indicated that they communicate with relatives and families ‘most often’. A further 5 respondents indicated that they contact their customers using their cell phones ‘most often’, while 3 stated that they ‘often’ use their phones to contact their employees. Female entrepreneurs in Lusaka use mobile phones daily in their various business operations and, as table 4.9 shows, women here actually use

their phones more for business purposes than they do for social purposes. The numbers of those who ranked keeping in touch with friends, family and children as 'most often' are only 3, 4, and 1 respectively, compared to those who ranked contacting suppliers, customers and employees as 'most often' at 8, 5 and 1. Nonetheless, this evidence also suggests that the mobile phone is valued both as an economic and social communication tool.

The table also shows that 41 female entrepreneurs in Gauteng make use of their mobile phones for direct business purposes. The usage patterns of cellular phones by South African female entrepreneurs reveal that only 3 of them use their mobile phones 'most often' to communicate with their suppliers; another 3 use their mobile phones 'most often' to communicate with their customers and 4 use their mobile phones 'most often' to communicate their employees. These figures are evidence of the value that mobile phones have in women's entrepreneurship, as well as their economic worth in helping to pull women towards the margins of mainstream economic activity. Compared to the number of women in Lusaka who ranked contacting suppliers, customers and employees as a top priority – as shown in table 4.9 – the women in Gauteng who ranked the business use of their mobile phones as the topmost priority is lower. On the other hand, they use their phones more for social reasons than their Zambian counterparts who contact their friends less.

Table 4.9 indicates that female entrepreneurs in Gauteng not only use their phones for business purposes, but also in their social lives. Most respondents (8), ranked contacting their relatives and families as their highest priority, while 6 ranked contacting their children first, followed by 5 who put contacting friends as priority number 1. Although this study did not gather evidence on this phenomenon generally, it may be assumed that the extensiveness of networks and providers, together with the limitations of landline coverage and the dispersal of the population, would reflect similar results for other regions in South Africa. This data cited above emphasises that the mobile phone has both social and economic value in South African women's lives. It also confirms the dual role of many women in the informal sector: they are both care-givers and bread-winners in their households. What remains to be done then, is to ensure that South African women entrepreneurs are able to maximise their use of cellular phones

to enhance business growth.

The use of mobile phones in Gauteng more for social reasons than for business reasons could be because they find the phone services less expensive than their Zambian counterparts, and are thus able to make more social calls. The data compared in table 4.16 effectively shows that entrepreneurs in Gauteng spend more on their cellular phone bills, with 3 respondents spending more than R1000.00 on monthly bills, whilst none of the female entrepreneurs interviewed in Lusaka spent more than that amount.

Table 4.10 which follows is a tabulation of the overall comments that were received from the businesswomen in Gauteng and Lusaka on cellular phones.

**Table 4.10: Comments by female entrepreneurs**

		What are your comments on the use of cell phones?								Total
		Cell phones are essential and helpful	Cell phones are costly	Should be considered private	Cell phones are indispensable	Reception needs to be improved	No comment	(Incoherent comments)	Phones are effective tools of communication	
Country	South Africa	27	6	1	3	2	2	1	7	49
	Zambia	31	3	0	0	3	0	0	6	43
	Total	58	9	1	3	5	2	1	13	92

As indicated in table 4.10, when asked to comment on the use of cellular phones, most of the respondents (27 in Gauteng and 31 in Lusaka) mentioned that they are an essential and helpful device. A further 7 respondents in Gauteng and 6 in Lusaka, stated that mobile phones are an effective means of communication.

On the downside, 3 respondents in Lusaka commented on the need to improve the network in order to lessen congestion problems that inhibit effective communication, as well as the need to have wider cellular network coverage that will cater for remote areas and not only urban and peri-urban places. In Gauteng, it was 2 interviewees that made commented on the need for cellular phone reception to be improved. With regards to affordability, 9 female

entrepreneurs (2 in Lusaka and 6 in Gauteng), made comments that reflected on how expensive it is to have a cellular phone.

The general comments received from the women in the survey also show the potential that mobile phones have for increasing the participation of women in national economic activities. An analysis of the research findings and literature sources (in chapter 2) on women entrepreneurs' cellular phone usage and their potential to increase women's participation in the economy in both Zambia and South Africa show considerable similarities between the two contexts. To begin with, though the number of interviewees in South Africa was slightly higher (at 49) than in Zambia (at 43), the surveys in both countries recorded that they only had 1 respondent each who does possess a cellular phone. This high number of women entrepreneurs with cellular phones is proof that mobile phone technology in both countries is viewed as an indispensable tool in female entrepreneurship.

The data collected on the use of cellular phones for business purposes by female entrepreneurs, shows that women in both Lusaka and Gauteng rely on their mobile phones in order to conduct business. The total number of interviewees in both countries who indicated that they use their cellular phones in their business came to 77 out of the 92 responses received. The high figures (over 80%) of women who use their phones for business purposes such as contacting suppliers, customers and employees, show the intrinsic role that mobile phones have in helping women to participate in economic activities.

In general, the findings in South Africa are similar to those from Zambia, where women entrepreneurs acknowledge the value of cellular phones in their businesses. The next section examines the consumer patterns of female entrepreneurs in Gauteng and Lusaka, and shows how they use their cellular phone functionalities.

### 4.3.3 Consumer habits of female entrepreneur cellular phone users

The following is a tabulation of the results on cellular phone functionalities as used by female entrepreneurs in Lusaka and Gauteng. The cellular phone functionalities that were looked were the making and receiving of calls; sending and receiving SMSs; taking and sending of pictures; cellular phone banking; e-mail; checking of time and the calendar and/or reminder functionalities.

**Table 4.11: Use of cellular phone functionalities by female entrepreneurs**

		Rank all the cell phone features/functionalities below with numbers from 1 (most often), 2 (often) to 3 (hardly ever), according to the way you use them:																		Total			
		Making & receiving calls (most often)	Making & receiving calls (often)	Making & receiving calls (hardly ever)	Sending & receiving SMSs (most often)	Sending & receiving SMSs (often)	Sending & receiving SMSs (hardly ever)	Taking, sending & receiving pictures (most often)	Taking, sending & receiving pictures (often)	Taking, sending & receiving pictures (hardly ever)	Cell phone banking (most often)	Cell phone banking (often)	Cell phone banking (hardly ever)	Receiving & sending e-mail (most often)	Receiving & sending e-mail (often)	Receiving & sending e-mail (hardly ever)	Checking the time (most often)	Checking the time (often)	Checking the time (hardly ever)	Using the calendar/reminder function (most often)	Using the calendar/reminder function (often)	Using the calendar/reminder function (hardly ever)	
Country	South Africa	8	0	1	6	2	1	3	4	1	1	3	1	2	2	1	7	2	0	1	2	0	48
	Zambia	12	0	0	9	1	0	1	2	0	0	1	1	0	1	1	5	2	0	1	5	0	42
Total		20	0	1	15	3	1	4	6	1	1	4	2	2	3	2	12	4	0	2	7	0	90

Table 4.11 above indicates that 12 women interviewed in Lusaka ranked the making and receiving of calls as the number 1 functionality that they use. According to the table, the second most popular cellular phone function used by women in business is the Short Message Service (SMS) function, with 9 Zambian women indicating that they use it most. A further 5 ranked the checking of time as the most used function on their phones. Only 1 respondent indicated that she uses her phone for banking 'often', and another 1 respondent reported that she uses the e-mail function on her phone 'often'. This shows that cellular

phone banking and e-mail services in Zambia are not yet popular, or have not been rolled out on a broad scale. These findings also suggest that it is possible that these services have not yet been marketed adequately or perhaps that female entrepreneurs are not yet in a position to afford them. This leaves room for future investigation into how such higher-level services can be used to enhance business operations for women in the informal sector.

Table 4.11 also illustrates the ways in which female entrepreneurs in Gauteng use the various functionalities on their mobile phones. The table reveals that 8 women ranked the making of phone calls as the feature they use 'most often'. Using mobile phones to check the time was given the second highest priority by the interviewees, with 7 women declaring they use it 'most often'. This was followed by a preference to send and receive SMSs, and then by taking pictures, followed by sending and receiving e-mail, and then by using the calendar/organiser function and banking.

The research results clearly show that female entrepreneurs in Gauteng are not able to put their phones to full use. Possibly owing to the fact that cellular phone banking is relatively new on the market, only 1 interviewee ranked it first in making use of their phones for business purposes. The e-mail functionality only received a ranking of feature 'most used' by 2 of the respondents, implying that service is also relatively new on the market, and also perhaps that the female entrepreneurs' computer literacy levels are not yet on a level at which they are able to make use of this service.

Due to various reasons such as affordability and lack of knowledge on how to use the various functions on their mobile phones, the women who were interviewed miss out on opportunities of fast mobile communications that can make their business operations much more efficient. Various other reasons for the female entrepreneurs not making full use of the functionalities on their mobile phones exist. For instance, there is a predominance of voice calls, due to the possibility that some of the people with whom the respondents interact may not be able to use e-mail or SMS.

The general usage patterns of mobile phone functionalities by female entrepreneurs in Gauteng show that they use slightly more functions than their Zambian counterparts, where the roll-out of enhanced technologies on mobile phones is somewhat slower.

The use of more phone functionalities by the women in Gauteng could also be because of the higher educational levels observed for the Gauteng sample. Nonetheless, the data received in both countries shows that female entrepreneurs are not in a position to make full use of their mobile phones to speed up business operations as most of them still do not use the calendar, e-mail and banking functionalities and services on their phones.

The following table captures businesswomen’s views on cellular phone service improvement:

**Table 4.12: Female entrepreneurs’ views on service improvement**

		Do you think your cell phone service needs to be improved?			Total	
		Yes	No	No response		
Country	South Africa	18	30	1	49	
	Zambia	28	14	1	43	
Total		46	44	2	92	
		If you answered “yes” to question 13 above, in what way/s can the service provided on your cell phone be made better?				Total
		Reduce cell phone costs	Additional services	Improve network reception	No response	
Country	South Africa	8	6	4	31	49
	Zambia	17	2	9	15	43
Total		25	8	13	46	92

Table 4.12 points out that half of the interviewees (46) expressed the need to have cellular phone services improved upon and indicated the ways in which services should be made better. From the number of female entrepreneurs who claimed that cellular phone services need to be improved, 9 respondents in

Zambia and 4 in South Africa asserted that the network needs to be improved in order to lessen congestion and that there is a need for wider network coverage especially in remote areas. Another 8 female entrepreneurs (2 in Zambia and 6 in South Africa), stated that they would like to have more services available, such as seeing the person on the phone with whom they are talking, and being able to talk without lifting the phone handset to their ear, as indicated in the open-ended comments part of the questionnaire. A significant number of respondents (25) expressed the need to see a reduction in the cost of services, maintaining that they find cellular phone services too expensive.

The South African figures show that fewer female entrepreneurs (18) would like to see improvement in services, compared to the higher Zambian figure of 28 respondents. It can thus be deduced female entrepreneurs in Gauteng receive better mobile phone services than those in Lusaka, as a smaller number of women complained about receiving bad service. However, this is not to say that there is no need for South African service providers to improve their services, since 18 survey participants in Gauteng still see the need for service improvement.

The claim of mobile phone services being too expensive for business women in is also validated in the research findings as tabulated below. Table 4.13 shows that mobile phones are not exactly a personal communication tool, but are shared by several people who cannot afford to make use of their own phones all the time.

**Table 4.13: Sharing of cellular phones by female entrepreneurs**

		Do other people use your phone?			Total
		Yes	No	No response	
Country	South Africa	22	26	1	49
	Zambia	33	9	1	43
Total		55	35	2	92
		If you answered "yes" to question 17 above, who are the other people who use your cell phone? Please specify.			Total
		Spouse/family/children/relatives	Friends	Employees	
Country	South Africa	18	5	4	27
	Zambia	34	9	0	43
Total		52	14	4	70
		Do you borrow or use other people's cell phones?			Total
		Yes	No	No response	
Country	South Africa	27	21	1	49
	Zambia	21	21	1	43
Total		48	42	2	92

It is imperative to point out that table 4.13 above is a tabulation of responses to three questions regarding the sharing of cellular phones. The first question asks whether there are people who borrow the female entrepreneurs' mobile phones, to which they had to answer either 'yes' or 'no'. The second question asks the female entrepreneurs to name the people that borrow their cellular phones if they answered 'yes' to the first question. It needs to be stressed that some respondents named *more than one* person out of the three categories given, and hence the responses tabulated are actually more than the number of the respondents who affirmed that there are others who use their phones. Consequently, the total responses in this case were deemed to be irrelevant. The third part of the table contains answers in response to the question on whether the respondents borrow other people's mobile phones.

In Lusaka, 33 interviewees (as indicated in table 4.13 above) asserted that there

are other people besides themselves who use their phones. Of those who responded in the affirmative, 34 responses stated that the other people who use their mobile phones are usually their spouses and children and 9 responses were received for the 'friends' category as those that borrow their phones. In turn, 21 of the women interviewed affirmed that they too tend to use other people's cellular phones. These findings then attest to the claim that cellular phone services are still very expensive in Zambia. In all, the general usage patterns of mobile phones by the female entrepreneurs who were interviewed reveal that not all the phone functionalities that the women would like to use are available to them. In addition, the interviewees are not entirely satisfied with the services that they receive from their service providers.

Table 4.13 also shows that 22 interviewees in Gauteng have their mobile phones used by others. The other people who use the interviewees' phones are mostly their families, spouses, relatives and children (with 18 responses). Only 4 responses were received for the category of 'employees' as people that tend to also make use of their mobile phones. A good number of women (27 also admitted to borrowing other people's cellular phones.

The usage patterns of cellular phones by female entrepreneurs in Gauteng outlined in this section confirm that a cellular phone is also a shared communication tool, as the female entrepreneurs tend to borrow other people's phones, whilst other people also use their phones from time to time. The fact that the interviewed female entrepreneurs confirm that the mobile phone is a shared communication tool, leads to the supposition that their communication needs are not met satisfactorily.

In both countries, for instance, businesswomen indicated that they would like to see an improvement in mobile phone services. In Lusaka, the respondents claimed that they would like to see an improvement in network reception as there is too much congestion; and that they would like to see the charges for services brought down, as well as to have more services such as 3G and video calling provided to them.

The consumer patterns of female entrepreneurs show that a slightly higher

number of women in Lusaka use their cellular phones more for business purposes than their counterparts in Gauteng. The number of entrepreneurs in Lusaka who ranked contacting suppliers as the most often used function of their mobile phones in their businesses came to 8, 5 ranked contacting customers first and 1 ranked contacting her employees first. The numbers of female entrepreneurs in Gauteng are 3, 3, and 4 respectively.

Conversely, the data from female entrepreneurs in Gauteng show that South African businesswomen use their cellular phones more for social purposes than do Zambian businesswomen. The data shows that the entrepreneurs included in the sample prioritised communications as follows: 5 ranked communicating with friends as the topmost priority; 8 family and 6 children. The data from Lusaka is 3, 4 and 1 respectively.

Another marked difference in cellular phone consumer habits between Zambian female entrepreneurs and South African female entrepreneurs is in the use of mobile phone functionalities. While women from both countries showed a high tendency of using their cellular phones to make calls and send SMSs, very few women in Lusaka use their phones for banking and e-mail purposes compared to Gauteng. Only 2 respondents in Lusaka reported that they use their cellular phone for banking, compared to 5 women in Gauteng. Moreover, only 2 women in Lusaka indicated that they use their phones for e-mail, compared to the higher figure of 5 in Gauteng.

#### 4.3.4 Communication needs of female entrepreneur cellular phone users

From the answers received on questions that were targeted at eliciting responses on the communication needs of female entrepreneur mobile phone users in the questionnaire, the following can be deduced: in short, the communication needs of female entrepreneurs in Lusaka and Gauteng are not adequately met.

As discussed in the foregoing section, out of the 90 respondents who indicated that they possess cellular phones, a large number of them (68), indicated that they still have a preference for other communication media like the Internet, telephone and fax (as shown in tables 4.8 and 4.9). This data on the women's preference for other ICTs also implies that the communication needs of female entrepreneur cellular phone users are not or cannot be entirely met by this medium. The following table, 4.14, shows the women's satisfaction levels with the services they receive on their cellular phones.

**Table 4.14: Female entrepreneurs' levels of satisfaction with cellular phone services**

		How satisfied are you with the overall packet of services provided on your cell phone?					Total
		Satisfied	Neutral	Dissatisfied	Cannot say	No response	
Country	South Africa	14	26	7	1	1	49
	Zambia	5	19	17	1	1	43
Total		19	45	24	2	2	92

As shown in table 4.14 above, 19 Zambian interviewees declared that they are neither satisfied nor dissatisfied with the services they receive, 5 stated that they were satisfied, and 17 declared that they are actually dissatisfied with the services rendered to them. Some of the reasons for the women's dissatisfaction are seen in the preceding discussions where the respondents claimed that mobile phone services are too expensive, and moreover, 21 stated that they have to rely on other people's cellular phones as they borrow them from time to time.

This data then is evidence of the fact that female entrepreneurs' communication needs in Zambia are not adequately met, and if nothing is done urgently to redress this situation, they will continue to be marginalised and remain on the fringes of mainstream economic activity. This is true to the extent to which women are able to access tools such as ICTs that would enable them to enter mainstream economic activity. It would be pointless to continue advocating the application of ICTs to empower women, if costs are structured such that only a small number of women in business can actually comfortably afford them.

Even though table 4.14 shows a higher level of satisfaction with the services that female entrepreneurs in Gauteng receive on their cellular phones than their Zambian counterparts, 7 interviewees in Gauteng stated that they were dissatisfied with the services they receive on their mobile phones. A larger number, 14 stated that they were satisfied with the services on their phones, while the largest number, at 26, claimed that they were neither satisfied nor dissatisfied. Conversely, table 4.12 shows that 18 still declared that they would still like to see an improvement in areas such as costs and better network reception although a lesser number (7 as indicated in table 4.14) stated that they were dissatisfied with the services they receive.

Their overall comments on mobile phones (in table 4.10) also point to room for improvement, with 5 female entrepreneurs stressing the need to improve network reception and 9 declaring that prices should be brought down. The issue of cellular phone services' prices is discussed in the next section, where the results from the study show that the women interviewed declared that mobile phone services are expensive. The issue of pricing then, if not urgently addressed, will severely hamper development efforts of increasing the participation of women in the economy and limit the impact of the participatory or plurality approaches which try to harness the power of ICTs to uplift women's positions.

**4.3.5 Female entrepreneurs and the obstacles they face in using cellular phone handsets and cellular phone services**

The findings on the affordability of mobile phone services and cellular phone handsets by female entrepreneurs reveal that not all women find it easy to acquire mobile phone handsets, and the cost of mobile phone services is still too high in Zambia and South Africa, since not all women are able to pay their own bills.

The following table illustrates the number of phones owned or possessed by each woman entrepreneur who was interviewed. It also shows whether each woman interviewed who has a mobile phone handset, acquired the phone by herself, or through other means and how easy it was to acquire that cellular phone.

**Table 4.15: Cellular phone acquisition by female entrepreneurs**

		How many cell phones do you have?			Total			
		One	More than one	Do not have cell phone				
Country	South Africa	34	14	1	49			
	Zambia	33	9	1	43			
Total		67	23	2	92			
How did you acquire your cell phone?								
		How did you acquire your cell phone?					Total	
		You bought it yourself	It was bought for you	It is a borrowed phone	It is a shared phone	Other means, e.g. received as a gift, on contract		No response
Country	South Africa	30	14	0	0	4	1	49
	Zambia	30	10	0	1	1	1	43
Total		60	24	0	1	5	2	92
If the phone belongs to you, how easy was it for you to acquire it?								
		If the phone belongs to you, how easy was it for you to acquire it?				Total		
		Easy	Difficult	Cannot say	No response			
Country	South Africa	29	15	4	1	49		
	Zambia	6	24	12	1	43		
Total		35	39	16	2	92		

Table 4.15 shows that 33 Zambian women interviewed possess only one cellular phone each, while 9 have more than one phone. Even though 30 women in Zambia indicated that they acquired the phones themselves, table 4.15 above shows that a total of 24 respondents did indeed find it difficult to acquire cellular phone handsets.

In South Africa 14 respondents declared that they have more than one phone, and 30 (as demonstrated in table 4.15 above), reported that they actually bought the phones themselves. Another 14 of the interviewees stated that the phones were bought for them by others, while a further 4 reported that the phones were acquired through other means (such as attaining them through contracts and receiving them as gifts).

The information presented in the table above shows that it was relatively easy for the majority of female entrepreneurs in Gauteng (29) to acquire their phones. This number should not be taken to mean that there is universal, unproblematic access. To the contrary, quite a high number, at 15, asserted that it was difficult for them to get cellular phones. Relatively, the data reflects that female entrepreneurs in Gauteng find it easier to acquire mobile phones than those in Lusaka, where 24 respondents found it difficult to acquire mobile phones. This could mean that the price of cellular phones in Zambia is higher than in South Africa, or simply that fewer Zambians are able to afford mobile phones than South Africans.

The following table (table 4.16) shows the actual views on the cost of mobile phone services as expressed by the women who were interviewed, as well as the amounts that they spend paying for their bills on a monthly basis.

**Table 4.16: Female entrepreneurs' views on costs, their monthly bills and the person/s that pay/s the bills**

		What is your view of the prices charged for cell phone services?						Total
		Cheap	Reasonable	Not so reasonable	Expensive	Cannot say	No response	
Country	South Africa	14	19	11	3	1	1	49
	Zambia	6	16	17	3	0	1	43
	Total	20	35	28	6	1	2	92
		What is your monthly cell phone bill?					Total	
		R1 – R100 / K1 – K50,000	R101 – R500 / K51,000 – K100,000	R501 – R1000 / K101,000 – K500,000	More than R1001 / K501,000	No response		
Country	South Africa	11	23	11	3	1	49	
	Zambia	20	12	10	0	1	43	
	Total	31	35	21	3	2	92	
		Who pays your cell phone bills?					Total	
		Yourself	Your spouse or partner/friend	The bill is shared	Cannot say	No response		
Country	South Africa	46	1	0	1	1	49	
	Zambia	32	8	2	0	1	43	
	Total	79	9	2	1	2	92	

Table 4.16 shows that when asked for their views on prices for mobile phone services, 6 Zambian respondents declared that the cost is cheap and 16 stated that the cost is reasonable. On the other hand, a good number of women (17) declared that the prices are not reasonable, and 3 claimed that they are actually expensive. The data received on the amounts spent on cellular phone bills per

month shows that the majority of female entrepreneurs (20), spend between K1.00 to K50,000.00 (about R1.00 to R100.00). None of the women interviewed spend more K501,000.00 (about R1000.00) per month on their bills. It appears that the amount of money from their business ventures that many female entrepreneurs would be able to spend on their mobile phone services is limited.

The majority of women in Zambia (32), also maintain that they pay their own bills, but 8 indicated that could not actually afford to pay their own bills, and instead have their bills paid by others, and a further 2 share their bills. The fact that the majority of women pay their own bills points to the independence of women in business. This provides justification for service providers to attend to their needs as it shows that female entrepreneurs form an important segment of the market. Judging from the size of their businesses (as none of the interviewees have more than 10 employees), it is understandable that the women in the study could not afford to spend more K500,000.00 on cellular phone bills.

Also seeing that 20 (17 stated that the prices are 'not so reasonable' and 3 that they are 'expensive') declared that the cost of services is rather high, the plight of female entrepreneurs and the affordability of mobile phones in Lusaka become evident. Even those with a high income did not exceed K501,000.00 (about R1000.00) per month in cellular phone bills, suggesting that their income may not necessarily be high enough for them to use their mobile phones on a more extensive level.

When asked about their views on prices charged for cellular phone services in Gauteng, 2 interviewees did not give their opinion; 14 maintained that the prices are cheap; 19 claimed that the prices are reasonable; 11 stated that they are not so reasonable, and 3 stated that they are expensive. Those that find the prices to be on the high side therefore come to 14 confirming that the cost of mobile phone technology in South Africa is quite high for a good number of people. Table 4.16 also shows that close to half (23) of the respondents in Gauteng, stated that they pay bills between R101.00 and R500.00 a month; 11 pay between R501.00 and R1000.00; 11 pay between R1.00 and R100.00, and only 3 pay bills that exceed R1001.00. These figures point to the fact female entrepreneurs in Gauteng spend more on their monthly bills than do female

entrepreneurs in Lusaka.

#### **4.4 CONCLUSION**

It is imperative to point out the surveys conducted in this study (both in Lusaka and Gauteng), were limited to urban areas, where it was certain that most female entrepreneurs would be in possession of cellular phones, so that their consumer habits could be studied. Therefore, it is quite probable that the findings would have been different had the surveys been extended to rural areas. This then, points to the need for future studies to be undertaken in this vein.

The major findings in this study also show that female entrepreneurs in both Lusaka and Gauteng find cellular phones to be an indispensable means of communication, in both their business and personal lives. However, a number of areas need to be improved upon if female entrepreneurs in both countries are to maximise the potential of mobile phone technology in order to participate more in mainstream economic areas. As pointed out by the female entrepreneurs themselves, the areas that need improvement include reducing congestion on networks, widening of network coverage, provision of additional services and a reduction in costs.

It can be concluded from the results of the interviews that were conducted that the female entrepreneurs in Lusaka are more dissatisfied with the services they receive on their phones, than are the female entrepreneurs in Gauteng. The South African women entrepreneurs in this study also have better access to mobile phones than the Zambian women, and they also spend more on their bills. The survey results also show that women in Gauteng view the income from their businesses as higher, than do the women in Lusaka. The general conclusion is that where cellular phone accessibility is greater, there might also be a proportionate increase in business income. This then could show that cellular phones do indeed have the capability of increasing women's participation in the national economy. In addition, the postulate found in both the participatory and gender theory models that calls for the participation of all relevant stakeholders at national policy-making level (in this case the inclusion of female

entrepreneurs as well) becomes relevant. It is only by studying the consumer habits of female entrepreneurs themselves, and by including their input in policy-making, that their needs and interests will be met and their contribution to mainstream economic ventures be increased.

## CHAPTER 5

### CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

#### 5.1 GENERAL

The study on business women's use of phone technology cannot be undertaken without making reference to gender theory and the participatory approach to development. Since the study itself is on the topic of the gendered use of cellular phones by female entrepreneurs, some of the views are borrowed from gender theory. The equal participation of women and men is needed in the development, usage and control of ICTs, since many women still view ICTs as a male domain and vice versa. Both the Zambian and South African governments recognise that female entrepreneurs experience problems and have special needs. To this end, they are committed to structuring their support to marginalised women in business in a way that gives special attention to their enterprises (South Africa. Department of Trade and Industry 1995; Zambia. Ministry of Communications and Transport 2005:31).

This chapter covers the limitations that were encountered in the study. These include: the non-probability sampling method of accidental sampling; the lack of empirical studies on mobile phone usage in women's entrepreneurship in Zambia and South Africa; as well as the cost constraint. The chapter also provides recommendations on redressing the communication problems experienced in women's entrepreneurship in Zambia and South Africa, based on the results presented in the preceding chapter as well as in chapter 2. It looks at how the participation of women in mainstream economic activities can be increased by using cellular phones, and how the research findings on the consumer habits of female entrepreneurs can be used by policy-makers at national level to uplift women in society. In addition, it is recommended that national policy-makers take cognisance of the fact that the communication needs of female entrepreneurs are not adequately met, and that there are numerous obstacles that women face in using mobile phones.

## **5.2 LIMITATIONS**

The following are some of the limitations that were encountered during the investigation on the use of cellular phones by female entrepreneurs in South Africa and Zambia:

### **5.2.1 *Non-probability sampling***

The non-probability sampling method of accidental sampling that was used in this investigation essentially means that there is a limitation on the extent to which the research findings can be generalised to the rest of the population of female entrepreneurs in the informal sector. Nonetheless, it is possible for the study to be replicated by using the same sampling procedure (Sampling methods 2007).

The problem of selection bias that is prevalent in accidental sampling was ameliorated through the analysis of various research documents and literature sources that impact on national policy regarding women's entrepreneurship. As pointed out by Mouton (2001:166), consulting various sources of information also tends to lessen researcher bias.

### **5.2.2 *Lack of empirical studies on women's entrepreneurship and cellular phone usage***

The review of literature in this study was faced with the problem of absence of adequate empirical studies on women's entrepreneurship and how cellular phones are used therein. There were hardly any information sources that were reviewed which directly dealt with the subject of women entrepreneurs and their use of mobile phones in Zambia or South Africa. Literature sources that were available were rather scanty and their reliability cannot be deemed to be complete.

The lack of empirical studies on women's entrepreneurship and cellular phone usage, especially in Zambia, further highlights the urgency with which inhibiting

factors regarding businesswomen's use and access to ICTs and the poor understanding of the gendered use of technology on the continent need to be addressed.

### **5.2.3 Cost constraint**

Owing to the cost restraint encountered in this study, the surveys conducted had to be limited to the urban areas of Lusaka and Gauteng only. The study could have been improved by comparing findings from female entrepreneurs in both rural and urban areas. Also owing to the fact that the sample selected was only limited to the cities of Johannesburg, Midrand, Pretoria and Lusaka, the benefit of drawing results from the rest of the provinces of Lusaka and Gauteng was not there. The particular geographical location of the sample means that the sample has peculiarities that may not be found in the rest of the population of female entrepreneurs.

Conversely, the constraint of limiting the surveys to the urban areas of Lusaka and Gauteng could be seen as advantageous in that most of the sample that was selected (a total of 97,8% of interviewees) was in possession of cellular phones. In this manner, the particular consumer habits of female entrepreneur cellular phones could be easily investigated.

The cost constraint encountered in this investigation was that the researcher could not actively participate in the interview process, and had to rely heavily on the data that was collected by research assistants who had to be paid. Since the researcher was based in Gauteng, it was not feasible to make more than one trip to Lusaka during the course of this study. This meant that the research assistants had to be first carefully selected, in order to ensure that they were able to conduct interviews effectively. In order to ensure greater validity of the data gathered by the research assistants, they had to be briefed at length on what the investigation was about, and what the data gathering procedures would be. Furthermore, as recommended by Babbie (1998:133), the researcher took a sub-sample of four respondents (two from Zambia and two from South Africa), in

order to verify, through replication, some of the information collected by the research assistants.

### **5.3 RECOMMENDATIONS**

The following are the recommendations that can be made to both cellular phone service providers and national policy-makers when it comes to providing female entrepreneurs with ICTs, especially cellular phones that can help them better to meet their communication needs.

#### **5.3.1 Zambia**

The recommendations suggested for Zambia and its national policy endeavours of empowering women through the use of ICTs are as follows:

##### **a) The participation of women in the economy by using cellular phones in Zambia**

In order to increase the participation of women in the economy through the use of ICTs including mobile phones, it is recommended that more extensive and rigorous research into women's entrepreneurship be undertaken. In this study, the lack of empirical studies on women's entrepreneurship in Zambia was one of the major hurdles encountered. This points to the urgent need to increase studies into women's entrepreneurship, especially if national policy concerns of increasing women's participation in mainstream economic activities are to be realised. It goes without saying that it is imperative first to study the behavioural patterns of women entrepreneurs' consumption of various ICTs, before employing measures that are supposed to help them move from the periphery of national economic activity to the centre through the use of ICTs.

The findings of this study, (as presented in chapter 4) reveal that 36 Zambian female entrepreneurs (which comes to 83,7% of the respondents) make use of

their cellular phones for business purposes. This shows that there is a link between cellular phones and economic growth. The claim by The World Bank (2006:4) that ICTs are able to enhance economic growth is true, since the women interviewed in Lusaka indicated that they use cellular phones in their businesses, for contacting suppliers, employees and customers. Indeed, some of the comments received from the women were that cellular phones have made their business operations much easier, as they can use their mobile phones to obtain information quite easily. The barrier of distance in obtaining and sending information for business purposes is eliminated. The findings received in this investigation therefore attest to the fact that cellular phones have a vital role to play in increasing women's participation in the Zambian economy. As the review of literature suggests, cellular phones assist small businesses in operating more efficiently, hence their potential needs to be optimised in order to boost overall economic growth in female entrepreneurship (International Telecommunication Union 2006:22).

**b) The consumer habits of female entrepreneur cellular phone users in Zambia**

It is not enough just to possess knowledge on the important role of ICTs such as cellular phones in development. What remains to be done is to apply that knowledge into viable measures that will make a definite impact on economic growth. However, before that can be done, it is paramount first to study *how* various ICTs are currently being used. Again it is necessary to emphasise that national policy-makers in Zambia need to invest in research and development that focuses on the consumer patterns of various ICTs, especially those of special groups in society such as small-scale businesswomen.

The consumer patterns of the Zambian cellular phone users in this investigation show that in their social lives female entrepreneurs use their mobile phones to contact their friends, families and children. In seeking information on the women's use of cellular phones for business purposes, it was found that Zambian female entrepreneurs use their phones to contact suppliers, customers and their employees. Furthermore, the results from the survey show that 48,8%

of the women (21 in number) borrow other people's cellular phones and 76,7% (33) indicated that their mobile phones are also used by others. These findings highlight the fact that a mobile phone is a shared communication tool in Zambia. Female entrepreneurs in Zambia mostly use their mobile phones to make calls and to send and receive SMSs; other functionalities are not exploited to any significant extent. Accordingly, it is possible to recommend that Zambia needs to catch up in rolling out new technologies and services such as 3G and cellular phone banking, as the women interviewed showed a keen interest in using their phones for other functions than the ones to which they are currently restricted. In addition, developmental policy-makers need to consider using cellular phones as a medium to disseminate information, such as the availability of resources. In this manner, the cellular phone may be an important conduit for information and education, while it enables participation in business and the economy. Since the results received show that there is the slow uptake of latest mobile phone technology by Zambian female entrepreneurs, it is recommended that the rollout of new technologies should also focus on marginalised groups of people such as small-scale businesswomen. It is in this light that the participatory approach of including everybody in development efforts can work with regards to the empowerment of women through ICTs, as well as handling numerous issues that come with gender-blindness when it comes to women accessing various ICTs.

### **c) The communication needs of women entrepreneurs in Zambia**

The results drawn from Zambia show that women entrepreneurs are not particularly satisfied with the cellular phone services available to them. They indicate that there is still a lot of congestion on mobile phone networks that hampers effective communication. Clearly this is an area that needs immediate attention, especially by the national regulator, CAZ. It is necessary that network suppliers render a better quality of service.

Furthermore, in order to meet the aims of universal service provision and access as outlined by the Zambian national policy-makers, who recognise that women are in need of empowerment when it comes to telecommunications services, the issue of wider area network coverage needs to be addressed urgently (Zambia.

Ministry of Communications and Transport 2005:47-48). Once again, it is up to the regulatory body CAZ to put in place measures that force service providers to take into account universal service in the process of awarding licences to them. Penalties can then be imposed on those service providers that do not meet the universal service obligations that come with their operating licences.

**d) Zambian female entrepreneurs and the obstacles they face in using cellular phone handsets and cellular phone services**

The area of pricing is another issue that needs to be addressed in Zambia. Needless to say, the cost of telecommunications in Zambia is still too high. It is reported by the International Telecommunication Union (2006:22) for instance, that large amounts of households' incomes in Zambia go to household phones. Zambians apparently spend even more than 10% of their monthly household income on telephone bills. In developed countries the figure is only about 3% of household income. Moreover, Mulavu et al (2005:181-182) report that the average income for a household in rural areas is about ZMK291,484.70 (R485.80) per year, while the average cost of a fixed line is ZMK58,290.16 (R97.15). This example is validation of the fact that telecommunications prices in Zambia are very high, impacting negatively on the utilisation of ICTs by female entrepreneurs in the informal sector. Expense inhibits the population in general and women entrepreneurs, specifically, from accessing the full range of ICTs available.

As confirmed in this study, telecommunications costs are quite high in Zambia, with 48,8% of the female entrepreneurs (21 in number) who were interviewed admitting that they have to borrow other people's cellular phones from time to time. Moreover, 18,6% of the women (8) interviewed indicated that their monthly cellular phone bills are paid for on their behalf, since they are not able to pay their own bills. A further 46,5% of the respondents (20 women) stated that they find cellular phone bills to be rather on the high side, with the majority of the respondents at 46,5% (20) paying bills between K1.00 to K50,000.00 per month.

Nevertheless, it appears the price of purchasing cellular phones in Zambia is

slowly becoming more affordable, as 42 out of the 43 interviewees were in possession of their own mobile phones, and 9 respondents actually have more than one phone. Nonetheless, 24 women (55,8% of the respondents) still found it relatively difficult to acquire their phones. Another 28 (65,1%) interviewees expressed an interest in using other ICTs such as the Internet, landlines and faxes, as an indication that not all their communication needs are being met by their mobile phones. Indeed, some sited affordability as the reason for relying on communication methods such as postal services as opposed to mobile phone use. This situation highlights the pressing need with which national development efforts that aim to uplift women's entrepreneurship in Zambia by using the participatory approach have to redress the issue of high communication costs as a barrier to attaining economic development.

### **5.3.2 South Africa**

Based on the findings in this investigation, the following are the recommendations made for South African stakeholders with regards to female entrepreneurship and ICTs:

#### **a) The participation of women in the economy by using cellular phones in South Africa**

As is the case in Zambia, women entrepreneurs in South Africa rely on their cellular phones in order to conduct their day-to-day business transactions. They use their cellular phones to contact their business suppliers, their employees and their customers. The results from this investigation show that 41 women (83,6% of the female entrepreneurs) in South Africa make use of their mobile phones for direct business purposes. This indicates that the use of cellular phones does have an impact on economic growth, and their effective use can actually have a positive bearing on overall development.

Similar to the situation in Zambia, only minimal research exists on mobile phone usage in women's entrepreneurship. This tendency is worrying particularly as

women's entrepreneurship and the extended use of ICTs are acknowledged by South African policy-makers as being crucial to economic development. Policy-makers and other relevant stakeholders in the development field need to put in place measures that encourage research into female entrepreneurship and the important role ICTs such as mobile phones may play.

**b) The consumer habits of female entrepreneur cellular phone users in South Africa**

The research findings in this study reveal that in South Africa, the popular cellular phone functionalities are to send and receive phone calls. The other popular functionalities that the female entrepreneurs use are to make and receive SMSs, check the time, to take pictures, to send and receive e-mails and do cellular phone banking. A good number of those interviewed indicated that they use their cellular phone to check on their children (a total of 8 responses were received for this category of answers). The business uses for cellular phones include reaching suppliers, employees and customers.

Again, this study recommends that a more in-depth investigation be carried out on the way female entrepreneurs in South Africa use cellular phones and other ICTs. Such studies may go some way to ameliorating the secondary position of women in the national economy. The purposes and ways in which female entrepreneurs in South Africa use their cellular phones is also significant in designing participatory development measures that can be used to optimise female entrepreneurial activity through the deployment of ICTs.

**c) The communication needs of women entrepreneurs in South Africa**

The research findings in this study reveal that female entrepreneurs in South Africa are more satisfied with the services rendered on their cellular phones, than are their Zambian counterparts. The possible reasons for higher satisfaction levels in South Africa could be that the women access a wider range of functionalities on their phones, and the quality of service is better since fewer

women in South Africa complained about network congestion. Only 14 respondents stated that they are satisfied with the services on their phones. Nonetheless, 18 respondents (over 36%) stated that they would still like to see an improvement in their mobile phone services, citing costs, network reception and wider network coverage as areas of concern to them. The female entrepreneurs in South Africa also expressed an interest in using other forms of communication such as the Internet, telephones, and faxes, declaring that they would get a wider range of services, and in certain instances the cost of communication would be even cheaper, than would be the case if cellular phones were used exclusively.

These issues need to be taken into serious consideration by stakeholders in the South African communications industry, as female entrepreneurs not only form an important part of the ICTs consumer market, but also contribute to overall economic growth. Their concerns regarding universal access through the widening of network reception areas and the lowering of costs should be addressed.

**d) South African female entrepreneurs and the obstacles they face in using cellular phone handsets and cellular phone services**

As stated in the previous section, it is clear that the cost of telecommunications in South Africa is high. One of the major concerns voiced by the women interviewed in this study was that they would like to see a reduction of costs in the mobile phone services. In addition, 15 female entrepreneurs stated that it was not easy for them to purchase their cellular phones. Furthermore, 14 women (or 28,5% of the respondents) declared that the price for services was too high for them, with 23 women (46,9%) spending between R101.00 and R500.00 per month on bills. Cost as an inhibiting factor seems to have been recognised even in the highest echelons of power. In 2006, the president, Thabo Mbeki, appealed for telecommunications charges to be brought down so that telecommunications can be made available to everyone (Mawson & Glazier 2006).

A survey carried out by the International Telecommunication Union (2006:22) in South Africa showed that mobile phones helped save money and time for people who live in remote areas, in that they no longer have to travel long distances to post letters or use public telephones. Once again the importance of cellular phones is highlighted, though mobile phones themselves are not necessarily cheap in South Africa. This study has affirmed that convenience of access is a major benefit of cellular telephony.

In a study conducted by the International Telecommunication Union, 62% of small businesses affirmed the importance of cellular phones (2006:22). The small business operators also claimed that they had increased their profits as a result using cellular phones. Since these studies prove the vital role of cellular phones in SMMEs as well as in women's entrepreneurship, it must follow that the high cost of mobile phone services ought to be addressed in order to effect social and economic change.

The level of competitiveness in the South African communications industry needs to be increased even more, since competitiveness brings with it a number of benefits for consumers, including the lowering of prices

Although Telkom's exclusive rights ended in 2002, the process of implementing a licence for a Second National Operator (SNO) has taken considerable time, with Neotel finally sanctioned as the SNO and supposedly in direct competition with Telkom (Sikwane 2006). While the introduction of a SNO is a positive step in the South African industry, more steps towards competitiveness are needed in order for female entrepreneurs to maximise mobile technology and other ICTs, particularly as the Internet which is also still expensive in South Africa. A report by Sikwane (2006) states that the South African government is actually waiting for competitors before prices for Asymmetric Digital Subscriber Line (ADSL) and Internet access can be lowered. Therefore, increasing the level of competitiveness in South Africa will go a long way in insuring that customers, such as female entrepreneurs, are able to get a service that is not only efficient, but also reasonable in cost. Nonetheless, the increasing of competitiveness should be conducted in a fashion that is not gender-biased against women.

## 5.4 CONCLUSION

In the words of Clark (2006), the digital war is far from over, "But it's clear just how it will be won. The key is the mobile phone." However, the solution is not in merely handing out cellular phones, but in ensuring that sustainable policies and pricing regulation are in place, so that female entrepreneurs can benefit from the technology, and in turn boost economic growth. Indeed, one study claims that developing countries which had an average of ten more cellular phones per 100 people in the years between 1996 and 2003 would have enjoyed per capita GDP growth that was 0.59% more than other developing nations (Cell phone use...2005).

Both South Africa and Zambia are sure to benefit from the growth of women's entrepreneurship. However, in order to do so, women's consumer habits of ICTs such as mobile phones, first need to be studied in order to develop appropriate, gender-sensitive strategies. One of the major hurdles encountered in this study was the lack of empirical research on female entrepreneurship in Zambia and South Africa, and more especially on female entrepreneurs and their use of cellular phones. It is clear, then, that more research is needed in the study of women's entrepreneurship, especially if policy goals of empowering them with ICTs are to be met through adopting the plurality approach. The fostering of growth in research and development in women's entrepreneurship would be a positive step in developing and implementing successful programmes for female entrepreneurs.

The findings in this study attest to the fact that mobile phones have the potential to increase the participation of women in the economy. It stands to reason that more in-depth studies are needed to examine the usage patterns of mobile phones by small-scale female entrepreneurs, in order to move them into mainstream economic areas. The concerns by female entrepreneurs in Zambia and South Africa are very similar, though experienced to a lesser degree in South Africa, where the uptake and roll-out of new ICTs is often faster, and the communications infrastructure more developed (Infoplease 2006). This investigation has also revealed that the communication needs of female entrepreneurs in Zambia and South Africa are not adequately met, since women

still find it difficult to acquire and access, not only cellular phones, but other ICTs. Some of the major hurdles they face are the high costs of mobile phone services, poor connectivity and lack of network coverage in certain areas. It is therefore urgent to redress the aforesaid issues, if the development efforts of empowering women with ICTs in order for them to contribute positively to economic growth – which have so far been met with little success – are to be realised. Nonetheless, mobile phones in themselves are not the only answer to uplifting women's lives. As Urbach (2007) maintains, the expansion and effectiveness of mobile telephony in Africa depends to a large extent on the policies adopted by government. Furthermore, these national policies need to examine the consumer habits of female entrepreneurs more closely.

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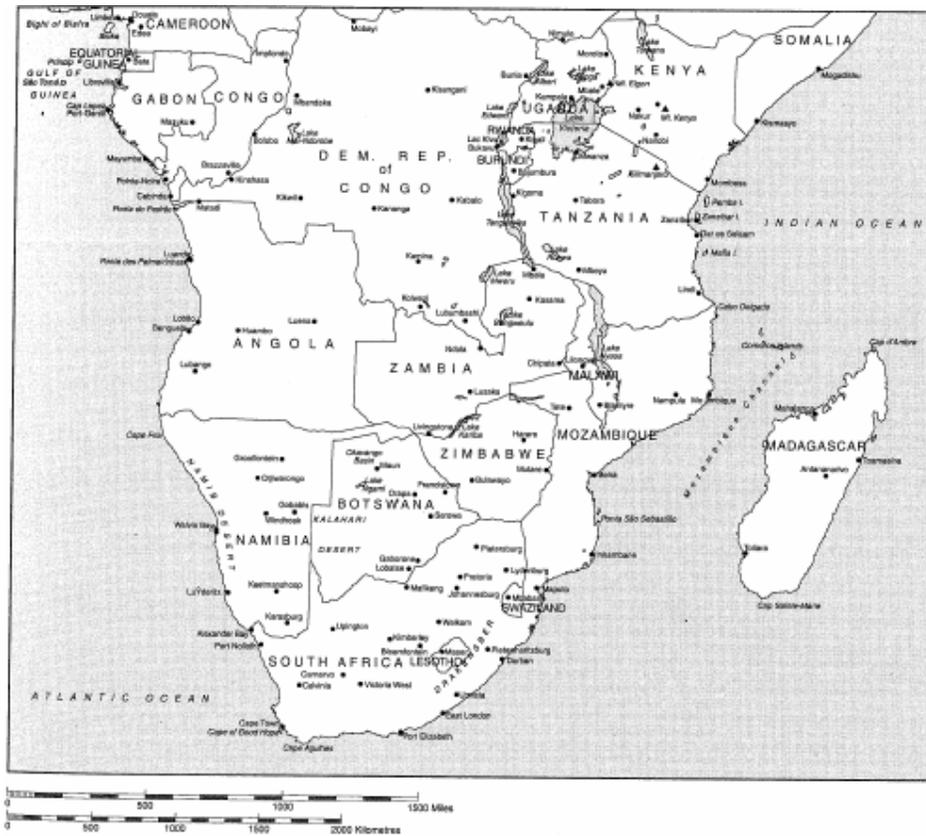
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## APPENDICES

### APPENDIX A: MAP OF SOUTHERN AFRICA

The following is a map of Southern Africa that shows the geographical locations of Zambia and South Africa:



(Rotberg 2002:iv).

## APPENDIX B: QUESTIONNAIRE

### Covering letter for questionnaire

PO BOX 875  
WAPADRAND  
0050

2006-07-03

Dear Respondent,

#### **Female entrepreneurs' cellular phone habits in Zambia and South Africa**

I am a student in my final year of study at the University of South Africa. I am studying for a Master's degree in International Communication. In order to meet the requirements of my degree, I need to complete a dissertation, and I have chosen a topic called, "*Female entrepreneurs' cellular phone habits in Zambia and South Africa.*"

The purpose of the study is to explore the consumer habits of female entrepreneur cellular phone users in Zambia and South Africa. The study aims to explore the consumer habits of female entrepreneur cellular phone users in these two countries, in order to find out their consumer patterns, needs and interests.

It is my hope that once you receive this questionnaire, you will complete it as soon as possible (within a week at least), and return it to me. Your completion of the attached questionnaire will go a long way in helping me to complete my studies.

Should you have any queries, please do not hesitate to contact me.

Sincerely,

Ms Mwanja Kayamba  
+72 346 1818

# FEMALE ENTREPRENEURS' CELLULAR PHONE HABITS

## SECTION I

### BIOGRAPHICAL INFORMATION

Please tick in the appropriate box for each question below:

- 1) In which business sector are you involved in?
- Agriculture / fishing
  - Catering / accommodation
  - IT / telecommunications services
  - Retail
  - Textiles / clothing
  - Travel and tourism
  - Other (Please state the nature of the business below)
- 
- 2) How long have you been running your business?
- Between 0-4 years
  - Between 5-9 years
  - Between 10-14 years
  - Between 15-20 years
  - More than 20 years
- 3) How many employees do you have?
- None
  - Between 1 – 5
  - Between 6 – 10
  - Between 11 – 15
  - Between 16 – 20
  - More than 20
- 4) What is your highest level of formal education?
- Four year degree/diploma or other qualification (or higher)
  - Three year degree/diploma/certificate or other qualification
  - One or two year(s) diploma/certificate
  - Grade 12 or Standard 10
  - Lower than Grade 12 or Standard 10
- 5) How much is the income from your business?
- High income
  - Medium income
  - Low income
  - In debt
  - Cannot say

**SECTION II**

**Please tick in the appropriate box or give a brief explanation in response to the following questions:**

1)	Do you have a cell phone? Yes <input style="width: 30px; height: 20px;" type="checkbox"/> No <input style="width: 30px; height: 20px;" type="checkbox"/> <b><i>If you answered "yes" to question 1 above, please proceed to answer questions 3 to 20. If you answered "no," please answer questions 2 and 20 only.</i></b>
2)	Why don't you have a cell phone? Please choose all that apply. I do not want one <input style="width: 30px; height: 20px;" type="checkbox"/> I cannot afford one <input style="width: 30px; height: 20px;" type="checkbox"/> I do not know how to use cell phones <input style="width: 30px; height: 20px;" type="checkbox"/> Other reason/s <input style="width: 30px; height: 20px;" type="checkbox"/> Please explain your other reason/s below: _____ _____
3)	How many cell phones do you have? _____
4)	How did you acquire your cell phone? You bought it yourself <input style="width: 30px; height: 20px;" type="checkbox"/> It was bought for you <input style="width: 30px; height: 20px;" type="checkbox"/> It is a borrowed phone <input style="width: 30px; height: 20px;" type="checkbox"/> It is a shared phone <input style="width: 30px; height: 20px;" type="checkbox"/> Through other means <input style="width: 30px; height: 20px;" type="checkbox"/> Please specify _____
5)	If the phone belongs to you, how easy was it for you to acquire it? Easy <input style="width: 30px; height: 20px;" type="checkbox"/> Difficult <input style="width: 30px; height: 20px;" type="checkbox"/> Cannot say <input style="width: 30px; height: 20px;" type="checkbox"/>

6)	What is your view of the prices charged for cell phone services?	
	Cheap	<input type="checkbox"/>
	Reasonable	<input type="checkbox"/>
	Not so reasonable	<input type="checkbox"/>
	Expensive	<input type="checkbox"/>
	Cannot say	<input type="checkbox"/>
7)	What is your monthly cell phone bill?	
	R1 – R100 (K1 – K50,000)	<input type="checkbox"/>
	R101 – R500 (K51,000 – K100,000)	<input type="checkbox"/>
	R501 – R1000 (K101,000 – K500,000)	<input type="checkbox"/>
	More than R1001 (K501,000)	<input type="checkbox"/>
8)	Who pays your cell phone bills?	
	Yourself	<input type="checkbox"/>
	Your spouse or partner/friend	<input type="checkbox"/>
	The bill is shared	<input type="checkbox"/>
	Cannot say	<input type="checkbox"/>
9)	Would you prefer to make use of other means of communication other than your cell phone?	
	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Cannot say	<input type="checkbox"/>
10)	If you answered "yes" to question 9 above, what other means of communication would you rather use? Please choose all that apply:	
	Landline (telephone)	<input type="checkbox"/>
	Fax	<input type="checkbox"/>
	Internet	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	Please specify _____	

11) Rank all the cell phone features/functionalities below with numbers from 1 (most often), 2 (often) to 3 (hardly ever), according to the way you use them:

- Making & receiving calls
- Sending & receiving SMSs
- Taking, sending & receiving pictures
- Cell phone banking
- Receiving & sending e-mail
- Checking the time
- Using the calendar / reminder function

12) How satisfied are you with the overall packet of services provided on your cell phone?

- Satisfied
- Neutral
- Dissatisfied
- Cannot say

13) Do you think your cell phone service needs to be improved?

- Yes
- Uncertain
- No

14) If you answered "yes" to question 13 above, in what way/s can the service provided on your cell phone be made better?

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15) Do you use your cell phone for business purposes?

- Yes
- No

16) For what purposes do you use your cell phone? Please rank them from 1 (most often), 2 (often) to 3 (hardly ever):

To contact suppliers	<input type="checkbox"/>
To contact customers	<input type="checkbox"/>
To contact employees	<input type="checkbox"/>
To keep in touch with friends	<input type="checkbox"/>
To contact relatives and family	<input type="checkbox"/>
To check on your children	<input type="checkbox"/>

17) Do other people use your phone?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

18) If you answered "yes" to question 17 above, who are the other people who use your cell phone? Please specify.

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19) Do you borrow or use other people's cell phones?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

20) What are your comments on the use of cell phones?

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## APPENDIX C: DATA ANALYSIS

The analysis below is of the survey designed to find out female entrepreneurs' cellular phone habits in Zambia and South Africa. The following indicators were analysed using the SPSS system:

### FREQUENCY TABLES

		Country			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	South Africa	49	53.3	53.3	53.3
	Zambia	43	46.7	46.7	100.0
	Total	92	100.0	100.0	

### SECTION I: BIOGRAPHICAL INFORMATION

#### In which business sector are you involved in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture / Fishing	8	8.7	8.7	8.7
	Catering / Accommodation	15	16.3	16.3	25.0
	IT / Telecoms	9	9.8	9.8	34.8
	Retail	16	17.4	17.4	52.2
	Textiles / Clothing	18	19.6	19.6	71.7
	Travel / Tourism	6	6.5	6.5	78.3
	Other	20	21.7	21.7	100.0
	Total	92	100.0	100.0	

#### How long have you been running your business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-4 years	55	59.8	59.8	59.8
	5-9 years	24	26.1	26.1	85.9
	10-14 years	10	10.9	10.9	96.7
	15-20 years	2	2.2	2.2	98.9
	More than 20 years	1	1.1	1.1	100.0
	Total	92	100.0	100.0	

**How many employees do you have?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	31	33.7	33.7	33.7
	Between 1-5	45	48.9	48.9	82.6
	Between 6-10	7	7.6	7.6	90.2
	Between 11-15	4	4.3	4.3	94.6
	Between 16-20	1	1.1	1.1	95.7
	More than 20	4	4.3	4.3	100.0
	Total	92	100.0	100.0	

**What is your highest level of formal education?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Four year degree/diploma or other qualification (or higher)	24	26.1	26.1	26.1
	Three year degree/diploma/certificate or other qualification	15	16.3	16.3	42.4
	One or two year(s) diploma/certificate	19	20.7	20.7	63.0
	Grade 12 or Standard 10	23	25.0	25.0	88.0
	Lower than Grade 12 or Standard 10	11	12.0	12.0	100.0
	Total	92	100.0	100.0	

**How much is the income from your business?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High income	10	10.9	10.9	10.9
	Medium income	41	44.6	44.6	55.4
	Low income	30	32.6	32.6	88.0
	In debt	3	3.3	3.3	91.3
	Cannot say	8	8.7	8.7	100.0
	Total	92	100.0	100.0	

**SECTION II**

**Do you have a cell phone?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	90	97.8	97.8	97.8
No	2	2.2	2.2	100.0
Total	92	100.0	100.0	

**Why don't you have a cell phone?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I cannot afford one	1	1.1	50.0	50.0
I do not know how to use cell phones	1	1.1	50.0	100.0
Total	2	2.2	100.0	
Missing System	90	97.8		
Total	92	100.0		

**How many cell phones do you have?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid One	67	72.8	72.8	72.8
More than one	23	25.0	25.0	97.8
Do not have cell phone	2	2.2	2.2	100.0
Total	92	100.0	100.0	

**How did you acquire your cell phone?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid You bought it yourself	60	65.2	66.7	66.7
It was bought for you	24	26.1	26.7	93.3
It is a shared phone	1	1.1	1.1	94.4
Other means, e.g. received as gift, on contract	5	5.4	5.6	100.0
Total	90	97.8	100.0	
Missing System	2	2.2		
Total	92	100.0		

**If the phone belongs to you, how easy was it for you to acquire it?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Easy	35	38.0	38.9	38.9
	Difficult	39	42.4	43.3	82.2
	Cannot say	16	17.4	17.8	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**What is your view of the prices charged for cell phone services?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cheap	20	21.7	22.2	22.2
	Reasonable	35	38.0	38.9	61.1
	Not so reasonable	28	30.4	31.1	92.2
	Expensive	6	6.5	6.7	98.9
	Cannot say	1	1.1	1.1	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**What is your monthly cell phone bill?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	R1 – R100 (K1 – K50,000)	31	33.7	34.4	34.4
	R101 – R500 (K51,000 – K100,000)	35	38.0	38.9	73.3
	R501 – R1000 (K101,000 – K500,000)	21	22.8	23.3	96.7
	More than R1001 (K501,000)	3	3.3	3.3	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**Who pays your cell phone bills?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yourself	78	84.8	86.7	86.7
	Your spouse/partner/friend	9	9.8	10.0	96.7
	The bill is shared	2	2.2	2.2	98.9
	Cannot say	1	1.1	1.1	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**Would you prefer to make use of other means of communication?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	68	73.9	75.6	75.6
	No	22	23.9	24.4	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**What other means of communication would you rather use?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Landline	26	28.3	31.7	31.7
	Fax	16	17.4	19.5	51.2
	Internet	36	39.1	43.9	95.1
	Other, e.g. e-mail, ordinary post	4	4.3	4.9	100.0
	Total	82	89.1	100.0	
Missing	System	10	10.9		
Total		92	100.0		

Rank all the cell phone features/functionalities below with numbers from 1 (most often), 2 (often) to 3 (hardly ever), according to the way you use them:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Making & receiving calls (most often)	20	21.7	22.2	22.2
	Making & receiving calls (hardly ever)	1	1.1	1.1	23.3
	Sending & receiving SMSs (most often)	15	16.3	16.7	40.0
	Sending & receiving SMSs (often)	3	3.3	3.3	43.3
	Sending & receiving SMSs (hardly ever)	1	1.1	1.1	44.4
	Taking, sending & receiving pictures (most often)	4	4.3	4.4	48.9
	Taking, sending & receiving pictures (often)	6	6.5	6.7	55.6
	Taking, sending & receiving pictures (hardly ever)	1	1.1	1.1	56.7
	Cell phone banking (most often)	1	1.1	1.1	57.8
	Cell phone banking (often)	4	4.3	4.4	62.2
	Cell phone banking (hardly ever)	2	2.2	2.2	64.4
	Receiving and sending e-mail (most often)	2	2.2	2.2	66.7
	Receiving and sending e-mail (often)	3	3.3	3.3	70.0
	Receiving and sending e-mail (hardly ever)	2	2.2	2.2	72.2
	Checking the time (most often)	12	13.0	13.3	85.6
	Checking the time (often)	4	4.3	4.4	90.0
	Using the calendar/reminder function (most often)	2	2.2	2.2	92.2
	Using the calendar/reminder function (often)	7	7.6	7.8	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**How satisfied are you with the overall packet of services provided on your cell phone?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Satisfied	19	20.7	21.1	21.1
	Neutral	45	48.9	50.0	71.1
	Dissatisfied	24	26.1	26.7	97.8
	Cannot say	2	2.2	2.2	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**Do you think your cell phone service needs to be improved?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	46	50.0	51.1	51.1
	No	44	47.8	48.9	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**In what way/s can the service provided on your cell phone be made better?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Reduce Cell phone costs	25	27.2	54.3	54.3
	Additional services	8	8.7	17.4	71.7
	Improve network reception	13	14.1	28.3	100.0
	Total	46	50.0	100.0	
Missing	System	46	50.0		
Total		92	100.0		

**Do you use your cell phone for business purposes?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	77	83.7	85.6	85.6
	No	13	14.1	14.4	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**For what purposes do you use your cell phone? Please rank them from 1 (most often), 2 (often) to 3 (hardly ever):**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	To contact suppliers (most often)	11	12.0	12.2	12.2
	To contact suppliers (often)	1	1.1	1.1	13.3
	To contact suppliers (hardly ever)	4	4.3	4.4	17.8
	To contact customers (most often)	8	8.7	8.9	26.7
	To contact customers (often)	1	1.1	1.1	27.8
	To contact customers (hardly ever)	4	4.3	4.4	32.2
	To contact employees (most often)	5	5.4	5.6	37.8
	To contact employees (often)	5	5.4	5.6	43.3
	To contact employees (hardly ever)	4	4.3	4.4	47.8
	To contact friends (most often)	8	8.7	8.9	56.7
	To contact friends (often)	9	9.8	10.0	66.7
	To contact friends (hardly ever)	1	1.1	1.1	67.8
	To contact family (most often)	12	13.0	13.3	81.1
	To contact family (often)	3	3.3	3.3	84.4
	To contact family (hardly ever)	2	2.2	2.2	86.7
	To contact children (most often)	7	7.6	7.8	94.4
	To contact children (often)	4	4.3	4.4	98.9
	To contact children (hardly ever)	1	1.1	1.1	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**Do other people use your phone?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	55	59.8	61.1	61.1
	No	35	38.0	38.9	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**Who are the other people who use your cell phone?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Spouse/family/children/relatives	52	56.5	74.3	74.3
	Friends	14	15.2	20.0	94.3
	Employees	4	4.3	5.7	100.0
	Total	70	76.1	100.0	
Missing	System	22	23.9		
Total		92	100.0		

**Do you borrow or use other people's cell phones?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	48	52.2	53.3	53.3
	No	42	45.7	46.7	100.0
	Total	90	97.8	100.0	
Missing	System	2	2.2		
Total		92	100.0		

**What are your comments on the use of cell phones?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Cell phones are essential & helpful	58	63.0	63.0	63.0
Cell phones are costly	9	9.8	9.8	72.8
Should be considered private	1	1.1	1.1	73.9
Cell phones are indispensable	3	3.3	3.3	77.2
Reception needs to be improved	5	5.4	5.4	82.6
No comment	2	2.2	2.2	84.8
[Incoherent comments]	1	1.1	1.1	85.9
Phones are effective tools of communication	13	14.1	14.1	100.0
Total	92	100.0	100.0	

**CROSSTABULATION**

**SECTION I: BIOGRAPHICAL INFORMATION**

**Country \* In which business sector are you involved in?**

**Crosstab**

Count		In which business sector are you involved in?							Total
		Agriculture / Fishing	Catering / Accommodation	IT / Telecoms	Retail	Textiles / Clothing	Travel / Tourism	Other	
Country	South Africa	1	9	7	5	6	3	18	49
	Zambia	7	6	2	11	12	3	2	43
Total		8	15	9	16	18	6	20	92

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.641 <sup>a</sup>	6	.000
Likelihood Ratio	27.284	6	.000
Linear-by-Linear Association	6.243	1	.012
N of Valid Cases	92		

a. 6 cells (42.9%) have expected count less than 5. The minimum expected count is 2.80.

**Country \* How long have you been running your business?**

**Crosstab**

Count		How long have you been running your business?					Total
		0-4 years	5-9 years	10-14 years	15-20 years	More than 20 years	
Country	South Africa	34	13	2	0	0	49
	Zambia	21	11	8	2	1	43
Total		55	24	10	2	1	92

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.488 <sup>a</sup>	4	.050
Likelihood Ratio	10.891	4	.028
Linear-by-Linear Association	8.289	1	.004
N of Valid Cases	92		

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is .47.

**Country \* How many employees do you have?**

**Crosstab**

Count		How many employees do you have?					Total	
		None	Between 1-5	Between 6-10	Between 11-15	Between 16-20		More than 20
Country	South Africa	14	23	3	4	1	4	49
	Zambia	17	22	4	0	0	0	43
Total		31	45	7	4	1	4	92

**Country \* What is your highest level of formal education?**

**Crosstab**

Count

		What is your highest level of formal education?					Total
		Four year degree/diploma or other qualification (or higher)	Three year degree/diploma/certificate or other qualification	One or two year(s) diploma/certificate	Grade 12 or Standard 10	Lower than Grade 12 or Standard 10	
Country	South Africa	21	12	9	4	3	49
	Zambia	3	3	10	19	8	43
Total		24	15	19	23	11	92

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.747 <sup>a</sup>	4	.000
Likelihood Ratio	33.619	4	.000
Linear-by-Linear Association	26.969	1	.000
N of Valid Cases	92		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.14.

**Country \* How much is the income from your business?**

**Crosstab**

Count

		How much is the income from your business?					Total
		High income	Medium income	Low income	In debt	Cannot say	
Country	South Africa	8	25	11	0	5	49
	Zambia	2	16	19	3	3	43
Total		10	41	30	3	8	92

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.864 <sup>a</sup>	4	.028
Likelihood Ratio	12.279	4	.015
Linear-by-Linear Association	3.057	1	.080
N of Valid Cases	92		

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 1.40.

**SECTION II**

**Country \* Do you have a cell phone?**

**Crosstab**

Count

		Do you have a cell phone?		Total
		Yes	No	
Country	South Africa	48	1	49
	Zambia	42	1	43
Total		90	2	92

**Country \* Why don't you have a cell phone?**

**Crosstab**

Count

		Why don't you have a cell phone?		Total
		I cannot afford one	I do not know how to use cell phones	
Country	South Africa	0	1	1
	Zambia	1	0	1
Total		1	1	2

**Country \* How many cell phones do you have?**

**Crosstab**

Count

		How many cell phones do you have?			Total
		One	More than one	Do not have cell phone	
Country	South Africa	34	14	1	49
	Zambia	33	9	1	43
Total		67	23	2	92

**Country \* How did you acquire your cell phone?**

**Crosstab**

Count

		How did you acquire your cell phone?				Total
		You bought it yourself	It was bought for you	It is a shared phone	Other means, e.g. received as gift, on contract	
Country	South Africa	30	14	0	4	48
	Zambia	30	10	1	1	42
Total		60	24	1	5	90

**Country \* If the phone belongs to you, how easy was it for you to acquire it?**

**Crosstab**

Count

		If the phone belongs to you, how easy was it for you to acquire it?			Total
		Easy	Difficult	Cannot say	
Country	South Africa	29	15	4	48
	Zambia	6	24	12	42
Total		35	39	16	90

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.884 <sup>a</sup>	2	.000
Likelihood Ratio	22.332	2	.000
Linear-by-Linear Association	18.688	1	.000
N of Valid Cases	90		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.47.

**Country \* What is your view of the prices charged for cell phone services?**

**Crosstab**

Count

		What is your view of the prices charged for cell phone services?					Total
		Cheap	Reasonable	Not so reasonable	Expensive	Cannot say	
Country	South Africa	14	19	11	3	1	48
	Zambia	6	16	17	3	0	42
Total		20	35	28	6	1	90

**Country \* What is your monthly cell phone bill?**

**Crosstab**

Count

		What is your monthly cell phone bill?				Total
		R1 – R100 (K1 – K50,000)	R101 – R500 (K51,000 – K100,000)	R501 – R1000 (K101,000 – K500,000)	More than R1001 (K501,000)	
Country	South Africa	11	23	11	3	48
	Zambia	20	12	10	0	42
Total		31	35	21	3	90

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.757 <sup>a</sup>	3	.033
Likelihood Ratio	9.974	3	.019
Linear-by-Linear Association	4.118	1	.042
N of Valid Cases	90		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.40.

**Country \* Who pays your cell phone bills?**

**Crosstab**

Count

		Who pays your cell phone bills?				Total
		Yourself	Your spouse/partner/friend	The bill is shared	Cannot say	
Country	South Africa	46	1	0	1	48
	Zambia	32	8	2	0	42
Total		78	9	2	1	90

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.604 <sup>a</sup>	3	.014
Likelihood Ratio	12.483	3	.006
Linear-by-Linear Association	3.526	1	.060
N of Valid Cases	90		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .47.

**Country \* Would you prefer to make use of other means of communication?**

**Crosstab**

Count

		Would you prefer to make use of other means of communication?		Total
		Yes	No	
Country	South Africa	40	8	48
	Zambia	28	14	42
Total		68	22	90

**Country \* What other means of communication would you rather use?**

**Crosstab**

Count

		What other means of communication would you rather use?				Total
		Landline	Fax	Internet	Other, e.g. e-mail, ordinary post	
Country	South Africa	21	11	14	3	49
	Zambia	5	5	22	1	33
Total		26	16	36	4	82

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.217 <sup>a</sup>	3	.007
Likelihood Ratio	12.590	3	.006
Linear-by-Linear Association	7.667	1	.006
N of Valid Cases	82		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.61.

**Country \* Rank all the cell phone features/functionality below with numbers from 1 (most often), 2 (often) to 3 (hardly ever), according to the way you use them:**

**Crosstab**

		Rank all the cell phone features/functionality below with numbers from 1 (most often), 2 (often) to 3 (hardly ever), according to the way you use them:											
		Making & receiving calls (most often)	Making & receiving calls (hardly ever)	Sending & receiving SMS (most often)	Sending & receiving SMS (often)	Sending & receiving SMS (hardly ever)	Taking, sending & receiving pictures (most often)	Taking, sending & receiving pictures (often)	Taking, sending & receiving pictures (hardly ever)	Cell phone banking (most often)	Cell phone banking (often)	Cell phone banking (hardly ever)	Receiving & sending e-mail (most often)
Country	South Africa	8	1	6	2	1	3	4	1	1	3	1	2
	Zambia	12	0	9	1	0	1	2	0	0	1	1	0
	Total	20	1	15	3	1	4	6	1	1	4	2	2

		Rank all the cell phone features/functionality below with numbers from 1 (most often), 2 (often) to 3 (hardly ever), according to the way you use them:								Total
		Receiving & sending e-mail (often)	Receiving & sending e-mail (hardly ever)	Checking the time (most often)	Checking the time (often)	Checking the time (hardly ever)	Using the calendar/r eminder function (most often)	Using the calendar/r eminder function (often)	Using the calendar/r eminder function (hardly ever)	
Country	South Africa	2	1	7	2	0	1	2	0	48
	Zambia	1	1	5	2	0	1	5	0	42
	Total	3	2	12	4	0	2	7	0	90

**Country \* How satisfied are you with the overall packet of services provided on your cell phone?**

**Crosstab**

		How satisfied are you with the overall packet of services provided on your cell phone?				Total
		Satisfied	Neutral	Dissatisfied	Cannot say	
Country	South Africa	14	26	7	1	48
	Zambia	5	19	17	1	42
	Total	19	45	24	2	90

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.159 <sup>a</sup>	3	.027
Likelihood Ratio	9.428	3	.024
Linear-by-Linear Association	7.617	1	.006
N of Valid Cases	90		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .93.

**Country \* Do you think your cell phone service needs to be improved?**

**Crosstab**

Count

		Do you think your cell phone service needs to be improved?		Total
		Yes	No	
Country	South Africa	18	30	48
	Zambia	28	14	42
Total		46	44	90

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7.626 <sup>b</sup>	1	.006		
Continuity Correction <sup>a</sup>	6.503	1	.011		
Likelihood Ratio	7.745	1	.005		
Fisher's Exact Test				.007	.005
Linear-by-Linear Association	7.541	1	.006		
N of Valid Cases	90				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.53.

**Country \* In what way/s can the service provided on your cell phone be made better?**

**Crosstab**

Count

		In what way/s can the service provided on your cell phone be made better?			Total
		Reduce Cell phone costs	Additional services	Improve network reception	
Country	South Africa	8	6	4	18
	Zambia	17	2	9	28
Total		25	8	13	46

**Country \* Do you use your cell phone for business purposes?**

**Crosstab**

Count

		Do you use your cell phone for business purposes?		Total
		Yes	No	
Country	South Africa	41	7	48
	Zambia	36	6	42
Total		77	13	90

**Country \* For what purposes do you use your cell phone? Please rank them from 1 (most often), 2 (often) to 3 (hardly ever):**

Count

		For what purposes do you use your cell phone? Please rank them from 1 (most often), 2 (often) to 3 (hardly ever):						
		To contact suppliers (most often)	To contact suppliers (often)	To contact suppliers (hardly ever)	To contact customers (most often)	To contact customers (often)	To contact customers (hardly ever)	To contact employees (most often)
Country	South Africa	3	1	3	3	1	2	4
	Zambia	8	0	1	5	0	2	1
	Total	11	1	4	8	1	4	5

		For what purposes do you use your cell phone? Please rank them from 1 (most often), 2 (often) to 3 (hardly ever):										Total	
		To contact employees (often)	To contact employees (hardly ever)	To contact friends (most often)	To contact friends (often)	To contact friends (hardly ever)	To contact family (most often)	To contact family (often)	To contact family (hardly ever)	To contact your children (most often)	To contact your children (often)		To contact your children (hardly ever)
Country	South Africa	2	3	5	5	0	8	1	0	6	1	0	48
	Zambia	3	1	3	4	1	4	2	2	1	3	1	42
	Total	5	4	8	9	1	12	3	2	7	4	1	90

**Country \* Do other people use your phone?**

**Crosstab**

Count

		Do other people use your phone?		Total
		Yes	No	
Country	South Africa	22	26	48
	Zambia	33	9	42
	Total	55	35	90

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10.102 <sup>b</sup>	1	.001		
Continuity Correction <sup>a</sup>	8.771	1	.003		
Likelihood Ratio	10.432	1	.001		
Fisher's Exact Test				.002	.001
Linear-by-Linear Association	9.990	1	.002		
N of Valid Cases	90				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.33.

**Country \* Who are the other people who use your cell phone?**

**Crosstab**

Count

		Who are the other people who use your cell phone?			Total
		Spouse/family/children/relatives	Friends	Employees	
Country	South Africa	18	5	4	27
	Zambia	34	9	0	43
Total		52	14	4	70

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.762 <sup>a</sup>	2	.034
Likelihood Ratio	8.018	2	.018
Linear-by-Linear Association	3.672	1	.055
N of Valid Cases	70		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.54.

**Country \* Do you borrow or use other people's cell phones?**

**Crosstab**

Count

		Do you borrow or use other people's cell phones?		Total
		Yes	No	
Country	South Africa	27	21	48
	Zambia	21	21	42
Total		48	42	90

**Country \* What are your comments on the use of cell phones?**

**Crosstab**

Count

		What are your comments on the use of cell phones?							Total	
		Cell phones are essential & helpful	Cell phones are costly	Should be considered private	Cell phones are indispensable	Reception needs to be improved	No comment	[Incoherent comments]		Phones are effective tools of communication
Country	South Africa	27	6	1	3	2	2	1	7	49
	Zambia	31	3	0	0	3	0	0	6	43
Total		58	9	1	3	5	2	1	13	92