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A GENDER-BASED ANALYSIS OF ICT ADOPTION AND USAGE IN SOUTH AFRICA

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A research report submitted to the Faculty of Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management (in the field of ICT Policy and Regulation)

February 2011

Abstract

Ample evidence exists that suggests that Information and Communication Technologies (ICT's) access and usage is structured along gender lines where social, economic, education barriers as well as attitudes impact negatively on female adoption and usage of ICT's. Further, the ability to communicate and or own an ICT gadget is heavily reliant on disposable income and affordability (Hafkin, 2002).

By investigating gender adoption and usage patterns of ICT's, South Africa stands an opportunity to gather important data critical to circumvent possible negative aspects of gender difference in adoption and usage. According to Huyer, S., and Hafkin, N., (2007), "gender in relation to ICT use and access remains largely an uncharted domain" (Huyer & Hafkin, 2007, p.36).

The report uses available ICT data covering between year 2005 to 2010 and the 2007 ICT access and usage survey data is the primary source for the key findings of the report. Key findings of the report suggest that no gender difference exists in adoption and usage of ICT's in South Africa. However higher incomes, more advanced education, being young and living in an urban location increases adoption and usage. Thus, given the existing gender disparities in income and education and the location of a large proportion of the female population in rural areas, the analysis found that females are disadvantaged with respect to broad ICT access and usage beyond mobile voice communications. While ICT adoption cannot on its own address the broad challenges of socio-economic development, gender-based policy and regulation is necessary to unlock heightened ICT usage by women as a contributing factor to development.

Declaration

I declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master in Management (in the field of Public Development Management) in the University of the Witwatersrand, Johannesburg. It has not been submitted before any degree or examination in any other University.

_____

Mbombo Bruce Mokebe Maleka

February 2011.

Dedication

My children, Kaya, Keitu, Oratile, Kabelo and Kamo, I did this with you in mind. I trust it will serve as an inspiration for you to achieve higher.

To my mother, sister and my whole family: D, Ncane's, and Mbi —your support gave me all the strength. Di-Bras watseba mostan . . .Dr Stork thanks to your mentorship and patience. To Thabang 'Obiado,' Lungi and Thabo 'Spencer', and my dearest pets Lulu & Zola, your contribution to the research was valuable and I will be indebted to you for years to come. Derick 'Avocado' for all your support . . . and book.

Lastly to my late sister Chunku—I think of you always and you are my beacon of hope; truly are! And please take good care of Keitu-she means the world to me.

Acknowledgements

I am extremely grateful to my supervisor Luci Abrahams for her persistent supervision. It is her encouragement that prompted the courage to want to complete what I started despite the challenges; Wits University; The LINK Centre for providing me the opportunity; Research ICT Africa (RIA), Alison Gilwald, Dr Stork, thank you for providing me the opportunity to actively partake and use the RIA Survey for primary data and continuous guidance; your experience in the sector has given me hope I did not choose a wrong career path. Woldekidan K, Alex Comninos your advice and contribution were much appreciated. To Department of Communications for affording me the opportunity albeit difficult circumstances—Dr Wesso, Dr Hadebe, Ms Khomotso Maloko, Kgomotso Ngwenyama and Ms Petronella Linders—the resources you gave me played a very crucial role, I thank you.

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Glossary of Terms

Term	Definition
e-Skills	**"e-Skills are essential in empowering individuals so that they can participate fully as citizens of the Information Society, and take advantage of all the opportunities before them: opportunities for employment and wealth creation, for taking advantage of innovative education and learning strategies, and for using new life-enhancing services, such as interaction with public authorities," (NeSPA, 2010).**
Ex-Ante regulation	**ITU defines it as "sector-specific, forward-looking regulation to prevent or promote certain activities"(ITU, 2010).**
Formal structures	**According to Statistics South Africa, they include houses, flats, hotels, boarding houses, old age homes, caravan parks and school and university hostels, (StatsSA, 1998).**
Gender Sensitivity	The concept of gender sensitivity has been developed to reduce the barriers of personal and economic development created by sexism. It also indicates the many challenges that remain in order to close gender gaps and promote equality in education. Gender sensitivity helps to

	generate respect for individual irrespective of sex. It is not pitting women against men. On the contrary the education, which is gender sensitive, benefits the members of both the sexes in an organization. It helps them determine the assumptions in matter of gender re valid and stereotyped generalizations. It requires only not only intellectual efforts but also the sensitivity and broadmindedness. It opens the widest possible range of life options for men and women (Malhotra, 2009).
ICT Development Index	**According to the ITU, "the index captures the level of advancement of information and communicationtechnologies (ICTs) in more than 150 countries worldwide and compares progress made between 2002 and 2007," (ITU, 2009, p. III).**
Informal structures	Excludes houses, flats, semi-detached houses, units in a complex, flats, rooms in the backyard and/or in a farm, (StatsSA, 2007c).
Information and knowledge societies	"An information society is a society in which the creation, distribution, diffusion, uses, integration and manipulation of information is a significant economic, political, and cultural activity. The knowledge economy is its economic counterpart whereby wealth is created through the economic exploitation of understanding. People that have the means to partake in this

	form of society are sometimes called digital citizens," (Beniger, 1986).
National Expenditure Deciles	**According to the Business Dictionary, it is "total level of expenditure in a national economy, equivalent to its total level of output and total level of income" (Businessdictionary.com, 2011).**
Network Readiness Index (NRI)	**" . . . Identifies enabling factors for countries to leverage ICT developments, with a particular focus on the role of the three main social actors: individuals, business and government. It provides a unique benchmarking instrument for economies to monitor their progress over time" (Dutta et al., 2008, p. 4).**
Usage Component Sub-Index[1] (UCS)	**According to Dutta et al., 2008,UCS consists of 15 variables used to assess ICT usage (Dutta et al., 2008).**
Sharemobile	Number of mobile owned by an individual or household

[1] According to Dutta et al., 2008,UCS consists of 15 variables used to assess ICT usage (Dutta et al., 2008).

List of Abbreviations

ABBREVIATION	DEFINITION
BMR	Bureau of Market Research
CGE	Centre for Gender and Development
CSIR	Centre for Scientific and Industrial Research
CS	Community Survey
DAI	Digital Access Index,
DAW	Division for Advancement of Women
DOI	Digital Opportunity Index
EC	Eastern Cape
ECA	Economic Commission for Africa
FHHH	Female Headed Households
FS	Free State
GDP	Gross Domestic Product
GHS	General Household Survey
GPI	Gender Parity Index
GSI	Gender Status Index

GP	Gauteng
HHincome	Household Income
HHsize	Household Size
HSRC	Human Sciences Research Council
ICT's	Information and Communication Technologies
ICASA	Independent Communications Authority of South Africa
IDI	ICT Development Index
IDRC	International Development Research Centre
IES	Income and Expenditure Survey
IOI	ICT Opportunity Index
ITU	International Telecommunication Union
KZN	KwaZulu-Natal
LFS	(Quarterly) Labour Force Survey
LP	Limpopo
MDG's	Millennium Development Goals
MHHH	Male Headed Households
MP	Mpumalanga

NC	Northern Cape
NSO	National Statistics Office
NW	Northern West
NED	National Expenditure Deciles
NRI	Network Readiness Index
Obs	Observations
RIA	Research ICT Africa
SAIRR	South African Institute of Race Relations
SA	South Africa
StatsSA	Statistics South Africa
UCS	Usage Component Sub-Index
UN	United Nations
USAASA	Universal Service and Access Agency of South Africa
UCS	Usage Component Sub-Index
USAID	United States Agency for International Development
WC	Western Cape
WEF	World Economic Forum

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CHAPTER 1: BACKGROUND AND CONTEXT:

UNDERSTANDING GENDER AND ICT ADOPTION & USAGE IN SOUTH AFRICA

Females in general have been the subjects of discrimination for many decades. Differences in male and female interaction with the world at socio-economical, political and cultural levels have been studied globally for many years and continue to be relevant even today.

It is also well documented that females in South Africa are exposed to greater magnitudes of gender-based challenges across all areas of their lives. Harsh Apartheid policies entrenched racial and social inequalities impacting on citizens in SA. Although directed towards specific racial groups, there is no doubt that Apartheid impacted across the South African society and justified a negative culture of dominance of one group over the other; whether racial or gender-based the institutional endorsement of this practice made lives unbearable even more so for females. In addition, cultural practices have often favoured males and systematically perpetuated their dominance over females. It could be that this deeply entrenched discriminatory pattern against women has transgressed to impact adoption and usage of Information and Communication Technologies (ICT's).

This report seeks to investigate whether any barriers exist that deprive females to fully adopt and use ICT's. Gender as a tool used to measure female and male differences influences this research report in order to understand adoption and usage patterns of ICT's by females in South Africa. Further, little literature exists that investigate gender ICT Adoption and Usage at both household and individual levels in South Africa.

Two units of analysis were identified to better understand gender and ICT adoption and usage:

1. **Individuals are analysed on the basis that findings by world organisations suggest that females are in fact discriminated against including in ICT's (Buvinic, Morrison, Ofosu-Amaah; & Sjobloom, 2008).**
2. **Households are analysed on the basis of many studies that have shown that female and male individuals from the same household access and use ICT's differently (Huyer & Hafkin, 2008).**

The above-mentioned units of analysis are universal instruments to promote reliable data regarding social phenomena including adoption and usage patterns of ICT's. The pervasive nature of ICT's necessitates governments to direct research practices on adoption and usage patterns as means to better inform policy and regulation.

It is important for the researcher to introduce South Africa and present an overview of the country, its provinces and its economy at the time of research. Chapter one will therefore provide an overview of South Africa in between 2006 and 2008. It will also address the concept of an information society associated with adoption of ICT's. It will also provide key sector-related statistics relevant to define the status of the country then. Chapter two will present the literature review within the context of the theoretical framework and chapter three will describe the theoretical framework and the research methodology adopted as a result. Chapter four will present the results while chapter five is the analysis. Conclusion and recommendations are detailed in chapter six.

1.1 SOUTH AFRICAN CONTEXT AND POPULATION DEMOGRAPHICS

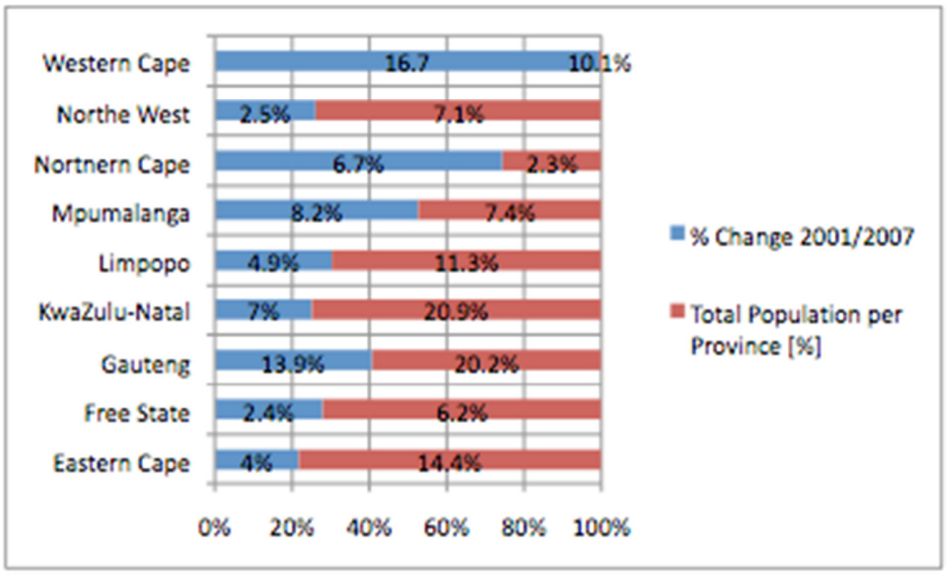
South Africa is located at the southern tip of Africa and according to the Community Survey 2007, had an estimated population of 48, 5million in 2007[2] spread across its 9 provinces (StatsSA, 2007a). This was an 8.2% increase of the population since the 2001 census (StatsSA, 2007a). Of the total population, 24, 2 million were female and constituted50.8% of the population, in contrast to 23, 5 million or 49.2% male. The Mid-Year Population Estimates for the same year calculated the South African population at 47, 8 million, with the majority of the population being women (StatsSA, 2007b).

According to the Community Survey 2007 (StatsSA, 2007a), Gauteng province had the largest share of the population at 10, 4 million people. This represents 21, 5% of the total population while the Northern Cape had the least percentage of the population at 2.3% of the total population see Figure I below.

The provinces that experienced the most significant population growth are the Western Cape and Gauteng, 16.7% and 13.9% respectively. The average population growth for the country was 8.2% (StatsSA, 2007a).

[2] NOTE: The research data used for this research report was collected in 2007, therefore it is necessary that the analysis of the South African economic landscape is measured around the same periods of the research data which forms the fundamental basis for findings that will be drawn.

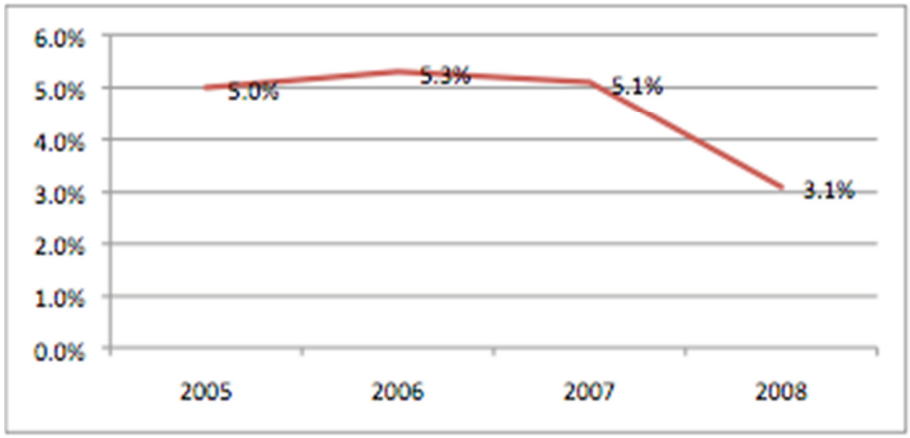
Figure: I. Total Population (%) for the Year 2007, by Province& (%) Population Growth Rate



Source: StatsSA 2007c

The Gross Domestic Product (GDP) at market prices was at 5.1 in 2007 (the year this research was undertaken) down from 5.3 the previous year. Year 2008 recorded a much more significant drop to 3.1; see Figure II below (StatsSA, 2008b). This is an illustration of the growth or in this case, regression pattern of the South African economy, which inherently will have an impact on individuals and household well-being in terms of ICT consumption patterns and disposable income to spend on communications.

Figure: II. GDP at Market Prices (%) Per Year



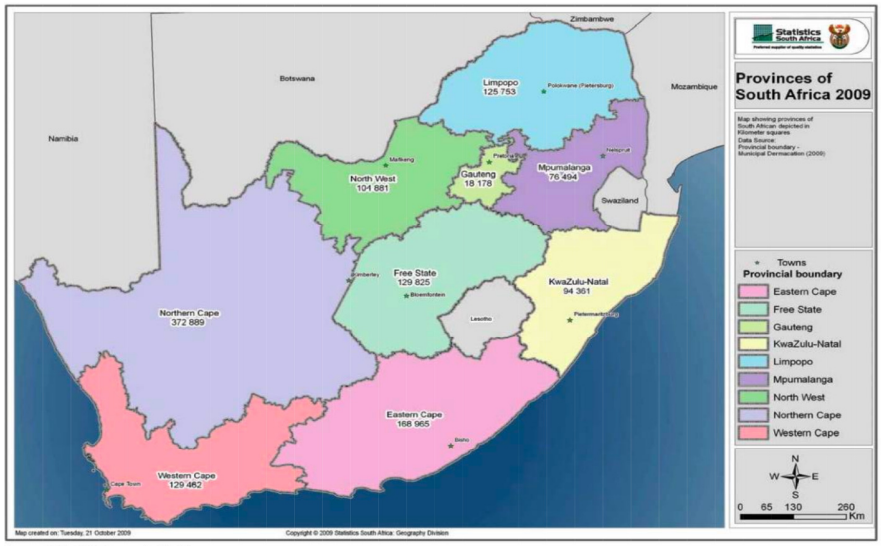
StatsSA, 2008b

South Africa has a total land area of 1, 220, 813 square kilometres. The country is divided into nine provinces. The largest of the provinces, Northern Cape, covers land area of 372, 889 square kilometres (StatsSA, 2008a), see Figure III below.

Figure: III. South African Map

Source: StatsSA, 2008a

Western Cape and Gauteng were considered high-income provinces. Low-income provinces were Limpopo, Eastern Cape and Northern Cape



Source: Stats SA, Geography Division

while KwaZulu-Natal was considered a middle-income province (StatsSA, 2005/6). The highest income-earning households (2008) were found in Gauteng (52%), Western Cape (13%) and KwaZulu-Natal (11%), (Masimula, 2009). The rest of the provinces not mentioned above shared the remaining 24%.

In terms of households per province, Gauteng had the most number of households in 2007 with 3, 2 million households followed by KwaZulu-Natal with 2, 5 million households. Northern Cape had the least households at 294 thousand households during the same period. Households in South Africa have been on an increase at 2.8% per year since 2002; see Figure IV below (StatsSA, 2007a).

Figure: IV. Number of Households per Year

Source: StatsSA, 2007a

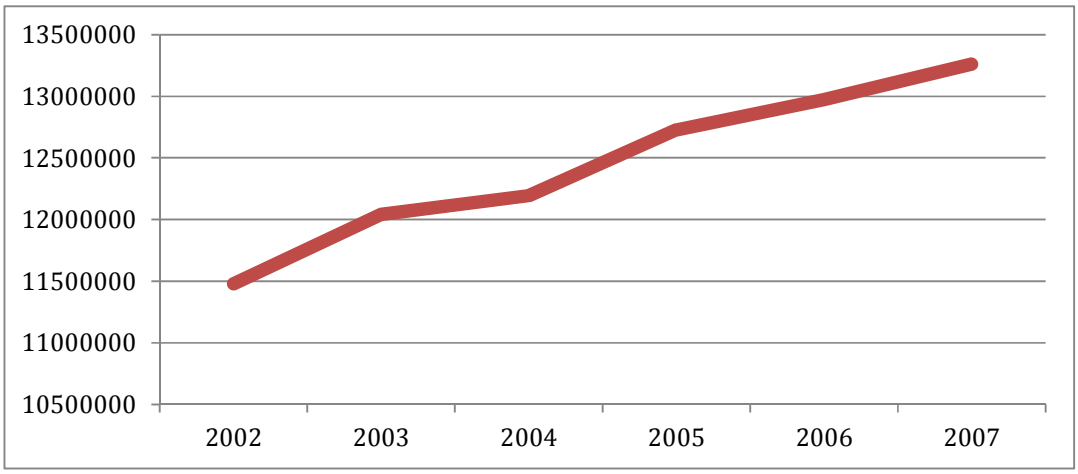
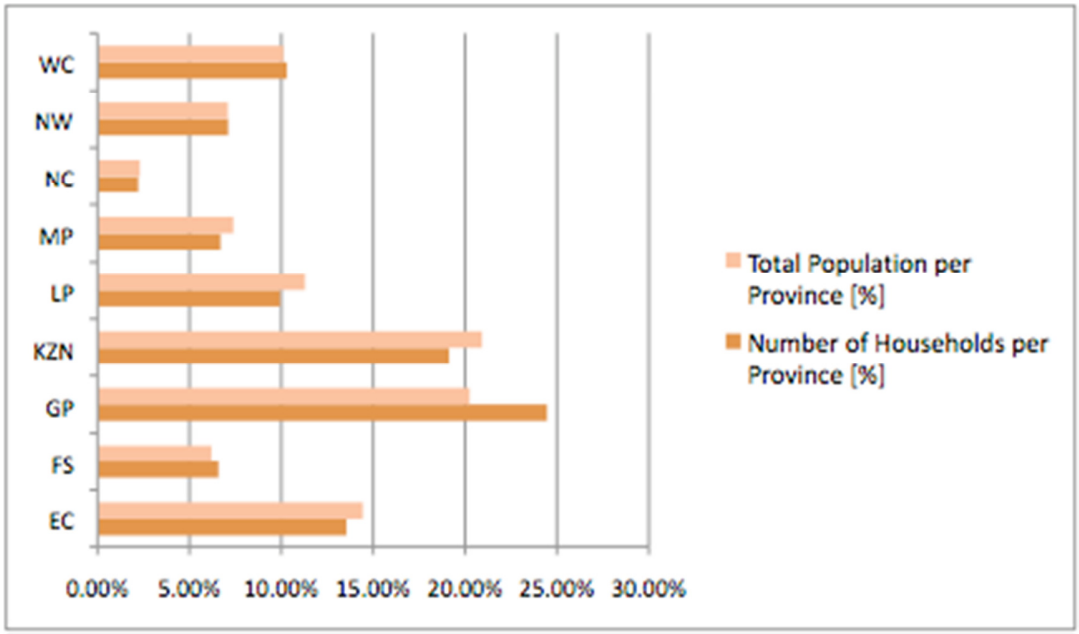


Figure V below suggests a relation between the populated provinces and number of households, the more the populated a province—the more the demand for households. In 2007 KwaZulu-Natal had a majority (21%) of the total population followed by Gauteng at 20% (StatsSA, 2007a). With the exception of WC, GP, and FS where households are more than the population, households are generally in proportion to the population of the provinces.

Figure: V. Comparison of Total Population and Households per Province [%]



Source: StatsSA, 2007a

For the purpose of this research, employment[3] and unemployment are important economic indicators in relation to the ability of households or individuals to be enable themselves to have access to resources associated with security, stability including access to communication. The relation of provinces and unemployment rates therefore becomes critical for this report. As reported in a 2008 StatsSA report, there was a general increase in employment across all provinces except the Free State and Limpopo provinces. The Western Cape Province showed the highest increase in employment figures with 66 000 new employments (StatsSA, 2008c).

By 2007, Limpopo had the highest unemployment rate of households at 59.1% followed by the Eastern Cape at 49.5%. The least affected province in this regard was the Western Cape with approximately 11.9% of households without employment. The average unemployment for South African households was on an increase to 37.8% in 2007 up from 35.3% in 2002. Unemployment rate for women in 2008 was at 27%, considerably higher than for men at 20% (Hall, 2010a).

The formal sector saw an increase in employment in 2008. The biggest contributors to the increase were observed in the construction sector at 65, 000 and services sectors at 48, 000 (StatsSA, 2008a). It must also be noted however that although increases were observed in other formal employment sectors, they were not statistically significant to be recorded as such according to the National Statistics Office (NSO) (StatsSA, 2008a).

Electricity is fundamental to mass-adoption of ICT's for developing economies because it underpins connectivity and telecommunications networks (Mwilima, 1995). According to the General Household Survey,

[3] According to StatsSA, 'employed' is defined "as *persons aged 15-65 years who, during reference week: did any work for at least one hour, or had a job or business but were not at work (temporarily absent)"* (StatsSA, 2008).

2007, 81.5% of all households were connected to the mains electricity supply (StatsSA, 2007a). Most South African households in 2007 used electricity as the main source of energy for lighting and heating (80% and 58.7% respectively). There has been a significant increase of approximately 18% of households using electricity as an energy source between the 2001 and 2007 census (StatsSA, 2007a).

In 2006 the total expenditure in the post and telecommunications industry was R 111, 6 million. Total expenditure of the telecommunications industry alone was at R 105, 2 million, (StatsSA, 2006a). This large expenditure on telecommunications can be attributed to investment in infrastructure and growth of the telecommunications industry in the same period. According to a StatsSA (2006) Statistical Report, R 47,4 million (42%) of expenditure in the telecommunications sector was attributed to purchases while capital expenditure on new assets in the same year amounted to R 15 048 million (StatsSA, 2006a).

Services related to cellular phones accounted for the largest income in the telecommunications sector at R 48, 2 million by 2006. Fixed line and broadcasting both accounted for 19% of the total income related to services in the sector (StatsSA, 2006a).

1.2 GENDER DESCRIPTION

While this paper does not seek to describe in detail the sociological definition of gender, it seeks to contextualise the definition of gender in relation to development and the impact thereof. According to the World Bank, Gender is defined "to refer to the socially constructed roles and socially learned behaviours and expectations of women and men in a particular society" (Worldbank, 2009). There is a cultural connotation to the definition in that female and male in the African context (and worldwide) have always had different roles associated with day-to-day

activities. Societies define roles, value systems and attitudes to determine levels of participation by its members based on sexual orientation (Venter & Marias, 2006). Suffice it to say therefore that gender is associated to social and cultural constructs (Venter et al., 2006).

"Gender is a socio-cultural construct of the society that determines the identity, roles or functions, entitlements and deprivation women and men in the society" (Mikalista, 2010, p. 2326).

Biologically, sex (being male or female) *"*refers to anatomy and physiology,"(Kennedy, Wellmen & Klement, 2003, p. 74) and is not easily altered, therefore gender is a social identity that changes over time (historically) and space (geographically) and is influenced by media, family, religion, and education in order to frame actions and shape behaviours. Gender is a means to understand the differences between males and females and hence refers to both sexes (World Bank, 2009; Kennedy et al, 2003).

It is important for countries in general to seek to understand women's political, social and cultural perspectives based on their positions in society and the roles they assume in family development, hence the term *Gender Sensitivity* (Venter et al., 2006).

1.3 ICT'S AND THE INFORMATION SOCIETY

For the purpose of this research, Information and Communication Technologies refers to the hardware, software, networks and media used to communicate either through data, voice, imagery and text and only covers the Internet, Mobile telephones and landline telephones although acknowledgement is made that there are many other types of ICT's such as the television and radio (UNICTTF, 2005).

The concept of knowledge societies is largely focused around people,

citizens and how they optimally use ICT's for development. This requires a set of skills that enable individuals to leverage from ICT's in order to actively participate in economic activities.

ICT's play an ever-increasing role in modern societies and their crosscutting nature affords countries opportunities to resolve impending social, economic, and developmental challenges. According to Comninos, Esselaar, & Gilwald, and Moyo & Naidoo, (2009/2010) infrastructure investment in telecommunications "improves national productivity and economic growth" (Comninos et al., 2009/2010, p. 3). There is a direct correlation between increase in ICT penetration and Growth Domestic Product (GDP) increase (Gilwald, Milek & Stork, 2010). It is for this reason that world organisations such as the ITU, World Economic Forum (WEF) and the World Bank have put emphasis on countries to reform their sectors and prioritise inclusive participation in order to realise information and knowledge society phenomenon. To support development, countries that adhere to global sector reform standards are guaranteed investment opportunities by these global organisations. Measuring the information society has therefore become an important activity for countries in order to carefully measure success relative to development.

According to an International Telecommunications Union (ITU) discussion paper (2010), the cross-cutting nature of ICT necessitates cooperation of regulatory statutes in a country in order to maximise benefits that can be derived from application of ICT's across sectors such as education, economic and health sectors (ITU, 2010). Equally important is the mass-participation of citizens to benefit from ICT's including females.

1.4 WSIS AND THE ISAD PLAN: DEFINITION OF GENDER

The World Summit of Information Society (WSIS) is a global initiative led

by the United Nations (UN) in order to ensure a people-centred approach for countries reap benefits from planned ICT diffusion. It also called among other things for a uniform approach to measuring ICT diffusion and development of uniform measuring indicators (UNICTTF, 2005). Many countries including South Africa are signatory to the WSIS plan of action adopted during a summit in 2003. This plan consisted of action steps to be adopted by signatory countries in relevance to adoption of what became to be known as the WSIS Declaration of Principles (Hadebe, 2010).

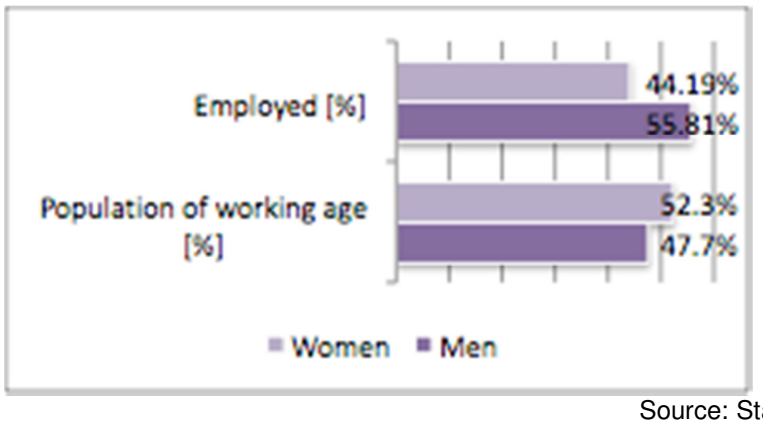
For SA the plan was translated into the Information Society Development Plan (ISAD) as a response document to respond to SA's commitment to an implementation in accordance to the WSIS action plan. Cabinet subsequently approved the ISAD Plan in 2007. It is equally important to note that the ISAD plan is managed from one of the branches of called the Department of Communications, the Presidential National Commission (PNC)(Hadebe, 2010).

1.5 FEMALES AND MALES IN SOUTH AFRICA

Of the total population,32% (which is one-third) is under the age of 15 years while seven percent is sixty years or older (StatsSA, 2008a). Life expectancy at birth is higher for women than men at fifty-three, nine years (53, 9) for females and only fifty, three years (50, 3) for males(StatsSA, 2008a).

The 2007 General Household Survey (GHS) reported that with the exception of Gauteng, females constituted the majority of the population in all provinces, (StatsSA, 2007a).

Figure: VI. : Population of Working Age Vs Employed by Gender [%]



Source: StatsSA, 2008c

There were 184 thousand marriages and 31 thousand divorces that were recorded in 2006 and females divorced the most compared to males at (StatsSA, 2008a). The rationale for presenting this statistic is its implication to single-headed households and or the social challenges that may coerce females to seek divorce.

According to the Labour Force Survey (LFS) 2008, the population estimates of working ages between 15-65 years was 30, 4 million and of that 17, 1 million was the economically active population while 13, 2 million were not economically active. The unemployment rate in 2008 was higher for females than males at 26, 3% and 20, 6% respectively (StatsSA, 2008c). Figure VI above is a breakdown of population of working age by gender. Females are a majority and yet less employed than males (StatsSA, 2008c).

By 2006, the post and telecommunications industry employed 76 thousand persons. The female proportion of this employment trend was 38.5% (StatsSA, 2006a). The telecommunications sector accounted for 67% of all employment in the post and telecommunications industries alone (StatsSA, 2006a).

James, Smith, Roodt, Primo & Evans, (2006) found that in 2005“. . . Females were paid less for the same type of work than their male counterparts” in the

ICT sector (James et al., 2006, p. 46). Furthermore, during the same period, females only accounted for 18, 6% of the total core ICT workforce in contrast to 81, 4% of males. Interestingly during the same period, more females were ICT end users than males at 74.4% and 25.6% respectively (James et al., 2006).

According to the StatsSA quarterly labour force survey report (2008), more males than females during 2008 were employers at approximately 588, thousand for males and 176, thousand for females. Whereas 91, thousand females were unpaid household members in 2008 than 36, thousand of males (StatsSA, 2008c).

1.6 HOUSEHOLDS IN SOUTH AFRICA

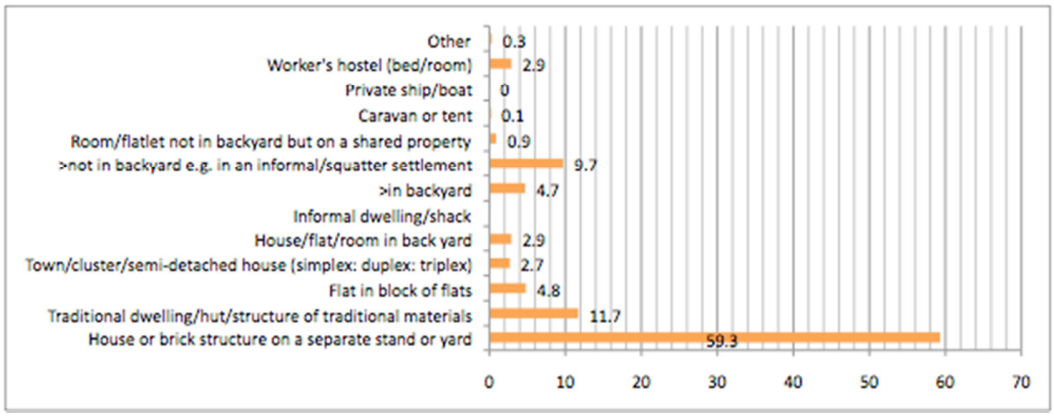
By 2007, there were 13, 2 million households in South Africa. Gauteng had the most households with 3, 2 million households and the province with the least households was Northern Cape with 294 000 households (StatsSA, 2007c). In relation to geographical size of provinces, the smallest province had the most number of households than the largest province and this can be attributed to the drastically opposite economic activities in these provinces with Gauteng being amongst the most active economic environments in South Africa.

Informal versus formal classification for households is often used in South Africa. According to StatsSA Community Survey Report (2007), 70.6% of houses were formal structures, i.e. house, flat, semi-detached house, unit in a complex, flat, room in the backyard and/or in a farm (StatsSA, 2007c). Northwest at 23.8%, Gauteng and the Free State at 22.7% and 18.4% respectively, had the highest informal dwellings as compared to other provinces (StatsSA, 2007c).

It is equally important to note that despite these high percentages in the

mentioned provinces, there has been a notable decrease in informal dwellings in 2007 compared to 2001 from 16.4% to 14.4% (StatsSA, 2007c).

Figure: VII. Household type by Main Dwelling (%), 2007



Source: StatsSA, 2007c

In all provinces, 15.4% of all households lived in informal dwellings in 2007, as compared to 12.7% in 2002. The province with the most informal dwellings at the time was Gauteng at 25.9% followed by Western Cape at 21.4% (StatsSA, 2007a). This is consistent with urban migration trends. In 2007, the majority of households (59%) in South Africa were brick structures. The second largest type of households were households made of traditional dwelling, see Figure VII above (StatsSA, 2007c).

Another report by the Bureau of Market Research (BMR) claimed there were 13, 4 million households in South Africa measured during 2008 period and in 2007 these household had a combined income of R1, 3 trillion (Masemola, 2009). A consistent incline of urban settlements (formal households) between 2002 and 2007 at 63.4% to 69.8% respectively and a decrease of informal settlements from 65.8% to 59.6% during the same period respectively was recorded (StatsSA, 2007a). This trend is consistent with urban migration patterns where people migrate in search of better opportunities in order to participate in

economic activities.

According to StatsSA, households reported an annual gross income of R 929, 2 billion in 2006 (StatsSA, 2005/6). In the same period, 2005/2006, and after tax deductions (R 64, 7 billion) and contribution to UIF (R4 billion), household disposable income was R 860, 5 billion (StatsSA, 2005/6).

Between 2002 and 2006 there was an increase in the number of households that received government housing subsidy with an average of 7.28%. The year 2007 saw a reversal of that trend with only 9.1% of households receiving a housing subsidy compared to 9.6% in 2006 and 5.6 % in 2002. Female households received a significant amount of this subsidy in 2007 at 11.5% in contrast to 7.6% received by males in the same period (StatsSA, 2007a).

Past political inequalities resulted in many disparities including economic, race and gender inequalities; for example during 2006 10% of the total population accounted for more than half of households income while 7% of household income was earned by 40% of the total population (StatsSA, 2005/2006). The poorest of the households (20%) "Accounted for less than 1, 5% of the income" (StatsSA 2005/2006, p. 2).Furthermore, despite being a majority, Black households accounted for 10% of income-earning household in comparison to 81% white households (Masemola, 2009). The lowest income group constituted the majority (51.5%) of households which are also majority black (Masemola, 2009).

According to Hall, 2008, unemployment among female-headed households is considerably higher than that of male-headed households. In 2008, 27% FHHH compared to 20% of MHHH of economically active population were unemployed (Hall, 2008a).

By 2001 the South African household landscape saw an increase in the number of FHHH by 41% up from 37.8% in 1996 (Venter et al., 2006). The increase in FHHH has serious implications for South Africa; there needs

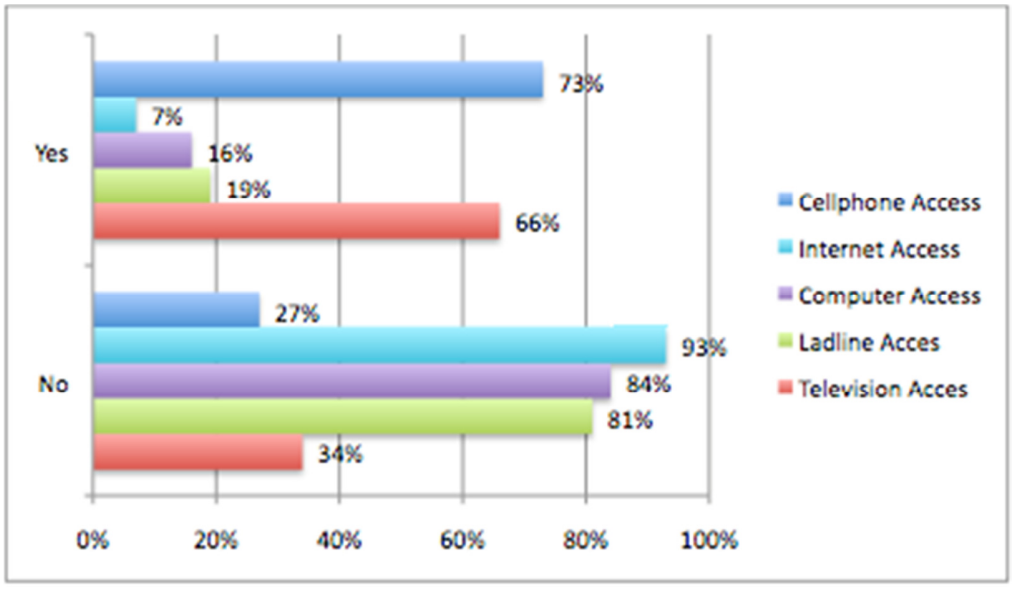
to be a systemic shift of policy and regulation to prioritize gender issues as means to better cater for this dramatic shift of SA households to FHHH. It also qualifies the general global shift to focus on understanding better the household gender disparities as means to contribute to better economic and societal policy and regulatory environments for countries.

Generally, female-headed households consumption expenditure for communications was lower at 3.5% compared to consumption expenditure for transport (19.9%), food and non-alcoholic beverages (1.4%) and miscellaneous goods and services (14.4%) in 2006 (StatsSA, 2005/6). Further, low-income households spent only 3.0% on communications than 4.3% by high-income households (StatsSA, 2005/6). Majority (23%) of household expenditure was spent on food (Masemola, 2009).

In 2007, mobile phones dominated ICT penetration at household level in South Africa at 73% (9 million) households claiming to own mobile phones. Internet access at household level had the least penetration at less than 7% (900 thousand) of households having Internet access. Television had the second-most highest penetration in household level with 66% (8 million) households claiming to own Televisions (USAASA, 2009/2010). Only 4.8% of households had Internet Access in the same period.

Only 27% of South African Households had no Mobile phone Access, while 81% have no access to Landline phones. In relation to Internet accesses, 93% of households in South Africa have no access and 84% of households had no computers at home; see Figure VIII below (USAASA, 2009/10). These findings are consistent with StatsSA by confirming that while landline access had decreased (as subjected by mobile popularity); all the other ICT household goods had significantly increased since the 2001 Census (StatsSA, 2007a).

Figure: VIII. South African Household ICT Penetration



Source: USAASA 2009/10

1.7 PATTERNS FOR MEASURING ICT ADOPTION AND USAGE IN SOUTH AFRICA

The pervasive nature of ICT's requires an effective regulatory system that nurtures careful and systemic deployment in order to maximise benefits and potential spin-offs that emanate from broadband ecosystem that impacts on both macro and micro economic systems (ITU, 2010).

Regulators are increasingly monitoring penetration trends and usage patterns as means to prevent indiscriminate practices across the value chain.

Benchmarking as means to develop comparable indicators and measure success stories has become more important in order to assess national-against-regional-against-global competitiveness (ITU, 2010). Indices such as the ICT Development Index (IDI) have become the norm because of their all-inclusive approach and empirical approach based on lessons learned in relation to past indices such as the Digital Access

Index (DAI), Digital Opportunity Index (DOI) and ICT Opportunity Index (IOI) (ITU, 2009). This report is influenced by the IDI indices particularly, the affordability, infrastructure and usage indices.

It is important to give background to the context of this research paper and the role of the nationally representative household survey and Focus Group Discussions (FGD's) conducted in 2007 as part of the broader Research ICT Africa (RIA) research initiative that is funded by the International Development Research Centre (IDRC). The growing demand for relevant ICT data to inform ICT policy and regulation across Africa is the motivation for such research exercises in Africa which ultimately enable public and private sectors to actively participate in national, regional and global policy formulation processes (Gilwald, 2010). Of all African countries, 17 participated in this household survey that provided rich data set from households, individuals about access and usage patterns (Gilwald et al., 2010).

According Comninos, et al. (2010) in the report: *South African Sector Performance Review* (2009/2010), South Africa has the largest economy amongst the African countries that participated in the survey but fares inferior when compared to countries of its size in areas such as economic and social disparities and unemployment which has soared in recent years (Comninos et al., 2009/2010).

In terms of the South African communications sector in 2008, it contributed a measly 2.8% to the GDP, which was a reflection of the general trend of the economy that was far below comparative middle-income countries (Comninos et al., 2009/2010). In comparison to the 17 other countries, SA has the most developed telecommunications network environment but lags far in comparison to countries of similar GDP per capita; services such as broadband penetration are minimal and concentrated in urban areas while high communications costs associated with vertically structured markets and regulatory inefficiency

continue to stifle competition and growth of the sector (Comninos et al., 2009/2010).

In 2007 fixed line penetration rate was at 9.8 % while broadband penetration was at 2.8% in 2009 (Comninos et al., 2009/2010). There were approximately 4 million Internet users in SA in 2007 (Goldstuck, 2010). Only 7% of households had Internet access (RSA, 2009). According to a BMI TechKnowledge Group peer benchmark study with 4 other countries, Brazil, India, USA and Chile found usage to be relatively low for mobiles while mobile penetration in 2007 was measured at 92% and the most basic Nokia phone cost significantly higher in at US$56 and a relatively expensive mobile tariffs (USAASA, 2009).

South Africa ranked 51 with a score of 4.05 in a Network Readiness Index (NRI) 2007-2008, (Dutta & Mia, 2008). The Usage Component Sub-Index[4] (UCS) ranked a score of 3.40 for the country. Individual usage was ranked to a score of 1.79, business at 4.71 ad government at 3.68 (Dutta et al., 2008). In the same report, mobile telephone subscribers per 100 inhabitants; South Africa ranked 57 out of 64 countries surveyed (Dutta et al., 2008). In another study measuring the World Economic Forum (WEF) Network Readiness as reported by Gilwald et al. (2010), SA dropped its lead to 52 in 2009 from 47 in 2007 (Gilwald et al., 2009/2010).

Further, the International Telecommunication Union (ITU) as the global body responsible for "*for collecting and disseminating of telecommunication and ICT statistics worldwide,"* has developed broad indicators to measure access and usage of ICT's (ITU, 2009). The measurement of gender is inherent within the context of the Index. The ICT Development Index for an example measures three main pillars: *ICT Readiness*, which measures infrastructure access of a country; *ICT Use*, which examines the intensity of use by individuals and households; and

[4] According to Dutta et al., 2008,UCS consists of 15 variables used to assess ICT usage (Dutta et al., 2008).

ICT Capability, **which measures the skills necessary to use ICT's (ITU, 2009). It is important to note that ITU ranked South Africa at 87 in 2007 down ten places from 77 in 2002 (Africa, 2009).**

In summary, not much literature exists that looks at ICT usage patterns in South Africa, especially along the lines of gender. Large surveys such as the Community Survey (2007) provide valuable data in terms of ICT's but largely concentrate on data capture and analysis and extracting from as large as possible a sample of the population and as such fail to acquire empirical data critical to understand the different variables that influence ICT usage patterns (Anderson, McWilliam, Lacohee, Cluscas, & Gershuny, 2007).

This research report seeks to contribute to the existing body of knowledge regarding gender patterns for individuals and households with a particular focus in ICT's. It seeks to examine the extent to which access and usage of ICT's is influenced by gender for individuals and at household level. Little data exists that analyses gender and ICT patterns at household level; therefore the report aims to encourage the practice because it cannot be assumed that the spread of ICT automatically addresses equal access irrespective of gender (Huyer & Hafkin, 2007).

Secondly, it will explore the implications of gender difference at economic, legal and educational contexts. The likelihood of gender differences is greater in South Africa given the long history of systematic discrimination in the society. Thirdly, given the historical background of male dominance in the world and particularly in the continent where dominance is endorsed through cultural stereotypes, the paper will investigate cultural and social phenomena in relation to gender differences.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK FOR GENDER-BASED ANALYSIS

A conceptual framework informs the structure of the literature review as illustrated in the Figure IX (Page 43). According to Huyer et al., 2007, women as significant players in socio-economic development and economic growth of countries need to be protected and their participation measured in the advent increase of marginalisation. Researchers have contributed to the identification of key indicators to measure gender differences in ICT adoption and usage; they include socio-cultural and access barriers, education, training and skills, disparities in ICT employment, access to and control over financial resources, media and content, age and type of technology (Huyer et al., 2007). Male dominance has been observed and well documented by many institutions. At household level, gender-segregated data has been found wanting especially on the part of ICT's where MHHH are likely to regulate patterns of usage and choice of programming on some ICT's (Huyer et al., 2007).

For the purpose of this research report, below is a list of variables used to analyse gender-based access and usage of ICT's:

- **Socio-cultural barriers: In relation to male-dominance and how it influences adoption of ICT's. Also to better understand whether individuals and household members access ICT's differently as a result of gender.**
- **Education and skills: In relation to females and males patterns of access to education and whether the ability to use ICT's differs between females and males.**
- **Economic disparities in labour and employment in order to explore whether females are equal to males in the labour**

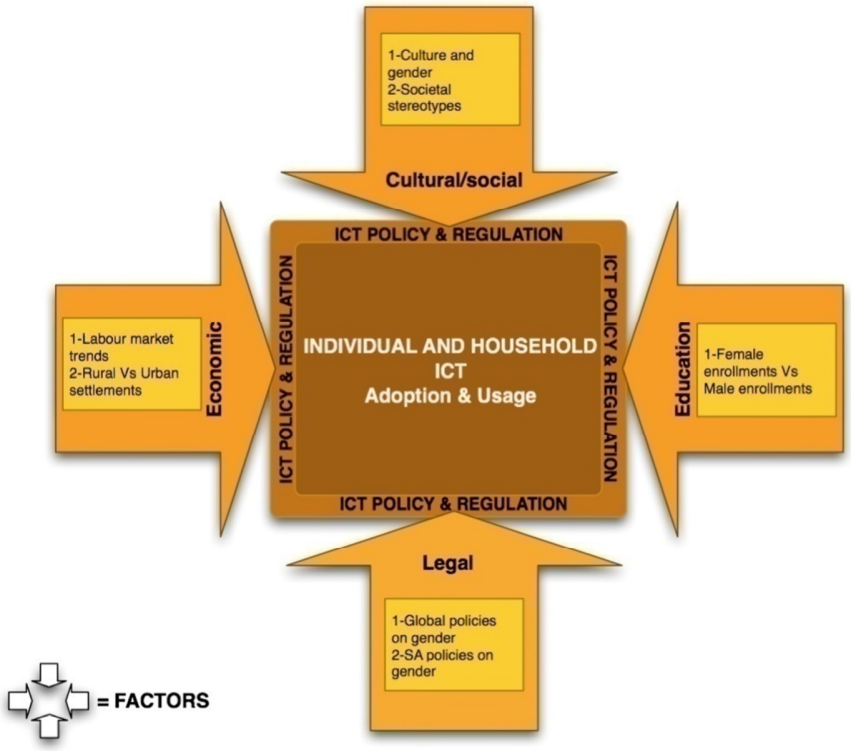
environment and whether there is equal opportunities to jobs and ICT-related jobs for females and males; and

- **Legal environment as mean to explore how legislative instruments support equity in South Africa and the implications for ICT policy and regulation.**

Figure IX (next page) is a diagrammatic representation of the variables mentioned above. It is the reality of gender disparities and the insufficiency of relevant gender segregated ICT data to inform policy and regulation in South Africa that is the motivation for this approach to the research paper. Furthermore gender discrimination is a global phenomenon that poses multitude of societal challenges for countries (Melhem, 2008).

“Unfortunately and until today, the world lacks a monitoring and evaluation framework with gender disaggregated indicators related to ICT usage and impact by women” (Melhem, 2008, p. 21).

Figure: IX. CONCEPTUAL FRAMEWORK: Gender-Based Analysis of ICT Adoption and Usage in South Africa



These dynamics (economic, cultural/social, educational and legal) addressed in this report are critical to understanding the impact with which they influence adoption and usage of ICT's at individual and household levels particularly for a country with a recent past of the highest form of discrimination entrenched at all societal levels of interaction and even supported through literature.

The Gender Status Index (GSI), which measures *wages and income*, *time of use and employment* and *access to resources* as economic measurement tools scored SA at an average 0.914 where a score of 1 means gender equality has been achieved (CGE, 2006). It is clear that SA still needs to address some gaps if gender equality is to be achieved.

The need to gather intelligence on those who are likely to be discriminated against from mainstream of progressive society can never be underrated because it will provide government with necessary intelligence to take corrective action.

2.1 FEMALES AND ICT ANALYSIS

Although in some countries women dominate some areas of ICT's as was evidenced in a research study by Markauskaite (2006, p. 445), there is a common trend of male dominance of ICT's across the globe (Formatex, 2006; NDP, 2007; e-Living Consortium, 2003; Norman, 2002 & Hafkin, 2003) particularly in developing countries. More often than not "technology is seen as gender-neutral," therefore there is a lack of coherent research practice to analyze gender disparities in ICT's across human levels of interaction(Fialova, 2006, p.35).

There has been a "slow but steady uptake of the technologies by females" in new technologies such as telephones, mobiles or computers (Gupta, 2008, p. 5). Dholakia, Dholakia, and Kshetri, (2003) in a G*ender and Internet Usage* study states that in Africa, "women's participation in Internet usage continues to be low, ranging from 12% in Senegal to 38% in Zambia" (Dholakia et al, 2003, p. 6). Therefore there is a rationale to disaggregate data by gender in order to better understand the inequalities that may be overlooked with regard to women usage and access of ICT's.

The gender gap is however less in young educated population than in the older population in other countries (Tankeu, 2005). Suffice it to say that there is a growing interest in ICT's among women than before, especially the younger generation (Gay, Mahon, Devonish, Alleyne & Alleyne, 2006).

McLaren &Zappalà (2002) further argues in her peer-reviewed journal

article of 2002, that patterns for ICT access and usage are multi-faceted and not evenly spread, i.e. the level of income, age, gender, occupation, family type, indigenous status and geographic location are important factors in determining who benefits from ICT's" (McLaren et al, 2002, p. 4). Political stability of a region, education and ICT skills, income and progressive policies all have an impact on how ICT's are adopted by countries. Although other schools of thought refute this argument and cite the case of Arab states that despite low literacy levels, the states have registered high growth in ICT. However, there is empirical evidence to the contrary (UNDP, 2004).

". . . Indeed, developed countries that have low levels of poverty would have better access to ICT's . . ." (UNDP, 2004, p. 3).

In order to fully diminish the gender bias so as to make ICT's ubiquitously available, communication infrastructure must extend to where women live while government must ensure enhanced educational levels (Tasneem, 2008).

Although Telecentres have been widely adopted in developing countries as means to combat accessibility issues, there is empirical evidence that suggest that without proper design of these centres to cater for women's needs (including the provision of education structures), they will not always benefit the advancement of women's' lives (Nadamoto, 2008). Internet for an example is a critical tool to access information, and Telecentres are well positioned to provide Internet services to the most disadvantaged communities. It is a known fact that far less females than males use the Internet irrespective of the education level (Huyer et al., 2007).

Ample literature suggests that providing an enabling environment for females in terms of access to education, labour, land, credit, new technologies and access to household resources, can impact positively to households and females as individuals thereby increasing positive

spin-offs for the country and economy (Tembon & Fort, 2008).

Truer in the African continent than any other continent, females were and still are deliberately conditioned to be inferior to males. In South Africa, females are almost always likely to be excluded from the mainstream economic activities due to socio-cultural and customary beliefs. This has led us to believe that there is a possible gender influence in the manner in which women access and use ICT's.

According to Huyer et al., (2007) " . . . Women use ICT's less often and spend less time using them, engage in less diverse uses and are less likely to find jobs in the ICT sector, particularly in higher positions" (Huyer et al., 2007, p. 20). For an example and with a few exceptions, comparison among countries shows that women are marginalised with respect to a key ICT tool, the Internet (Huyer et al., 2007).

A study about sociability, interpersonal relation and the Internet conducted in the US by Nie, (2001), concludes that there exists a "strong relationship between education, income, and Internet access," and the Internet experience is relative to time spent per week; the more the experience the more the time spent on it (Nie, 2001, p. 426). When juxtaposed to high costs, time sacrifice, females are likely to be disadvantaged because of the broad range of responsibilities that demand their attention on a daily basis and in fact that females are likely to have little or no income to use for ICT's.

Anderson et al., (2007) found in the UK that income and social class influence ICT ownership and usage (Anderson et al., 2007). The report further found that married females were significantly lower hours in use of computers than males when compared to single females (Anderson et al., 2007). Females called relatives more than friends and were significantly dominant in this practice when compared to males (Anderson et al., 2007). The study also concluded that "younger generations were more likely to own or use computers than older

people" and spent more hours per week on the Internet than adults (Anderson et al., 2007, p. 306).

Different socio-economic realities divided along the gender line affect females and males differently, including ICT's (Huyer et al., 2007).

> Studies have shown different levels of access for male and female Internet and mobile and fixed line telephone users within the same household . . . . . For example a survey in Ethiopia revealed that male household members often locked the landline telephone during the day so that women in the household could not use it . . . (Huyer et al., 2007, p. 37).

Empirical data about gender discrimination in general is available; but equally so, we cannot assume that because policy instruments exist to promote ICT spread equitably in SA then discrimination against females in a society that is entrenched in patriarchy practices will automatically be eliminated.

Little data exists that outline adoption and usage patterns of ICT's in SA. The literature presented below will attempt to elucidate that despite progressive legislation, policies and regulation gender discrimination is still rife in a country where females comprise more than half of rural population with a 60% poverty rate (Groth, 2009).

Therefore discrimination in ICT's, on the basis of wider gender-based abnormalities in SA as presented below, is a possibility. It is also true that SA society is divided along social anomalies where majority are poor. In order to actively participate in an Information Society and Knowledge Economy, South Africa must adopt an all-inclusive approach to ICT adoption and usage meaning all individuals must be afforded an equal opportunity to ICT's (Hashim, 2008).

2.2 EDUCATION AND LITERACY GENDER ANALYSIS

"There is no doubt that education has social and economic benefits for the general public and private individuals . . ."(Tembon, et al., 2008, pg. 7*).*

Modern labour markets require individuals with a composite set of cognitive skills and competencies to effectively participate in economic activities that inherently improve national economic growth. Though not an exclusive determining factor to economic success, education in general is important to the success of any country because it allows for more labour participation therefore economic gains for the entire country. Schooling yields benefits for the individual and in turn provides for national aggregate outcomes resulting in positive societal outcomes (Tembon et al., 2008). Globally females make up a large percentage of world's illiterate people (870 million) especially in Africa (Primo, 2003). This poses a serious challenge for countries like SA that aspire to benefit from Information and knowledge society phenomenon.

Prioritization of female education is therefore important and relevant given that females form the core of societal structures and are a confirmed majority in SA. Further, the fact that the majority of South African households rely on income from employment necessitates the need for a more educated society especially among females (Amoateng & Heaton, 2007).

In terms of ICT usage, lack of education results in inability of citizens to use technology effectively and ultimately impacts negatively on use of ICT's for economic purposes. Primo, 2003 argues that among others "*. . . computer non-literacy and illiteracy hamper women's use of ICT's including the Internet*" (Primo, 2003, P. 11). According to Huyer & Mitter (2003) among the most common barriers to female access and use of ICT's is literacy and education (Huyer et al., 2003).

A critical level for eradication of many societal challenges is secondary level schooling kept at a bear minimal for females. An educated female is likely to be employed, have a steady income and lower health risks and nutrition. An adverse effect to human development and economic growth is possible if females attain less than secondary school education (Tembon et al., 2008). Tembon et al. (2008) further argue, "*education empowers women to reject adverse cultural practices . . .*" (Tembon et al., 2008, xviii). Longer years in education for females allow them to reap far better wage benefits than males in any give occupation (Tembon et al., 2008). Higher education attainment for females results in better wage benefits and opportunities thereby prosperity for their families and households.

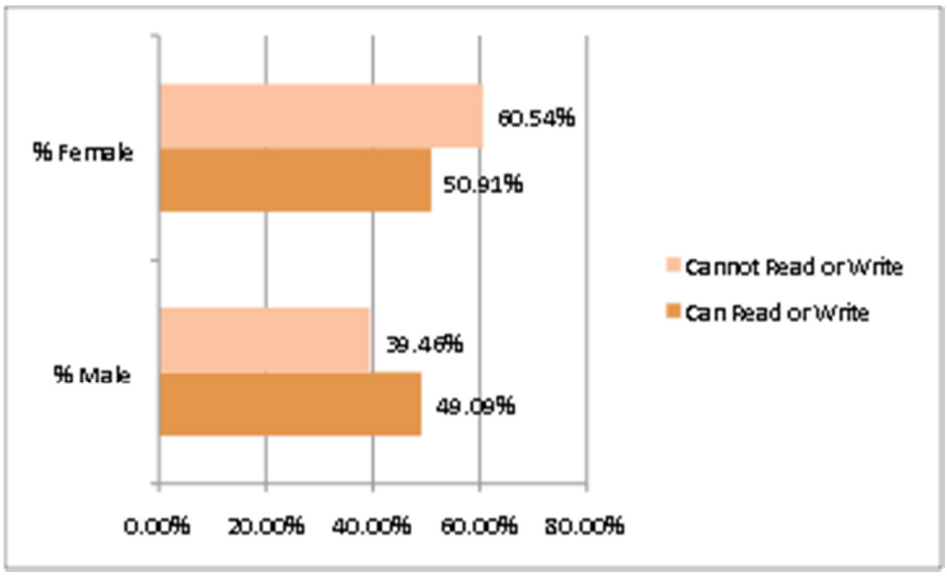


Figure: X. Percentage of Total Population 15 Years or Older: Read or Write by Gender (2007)

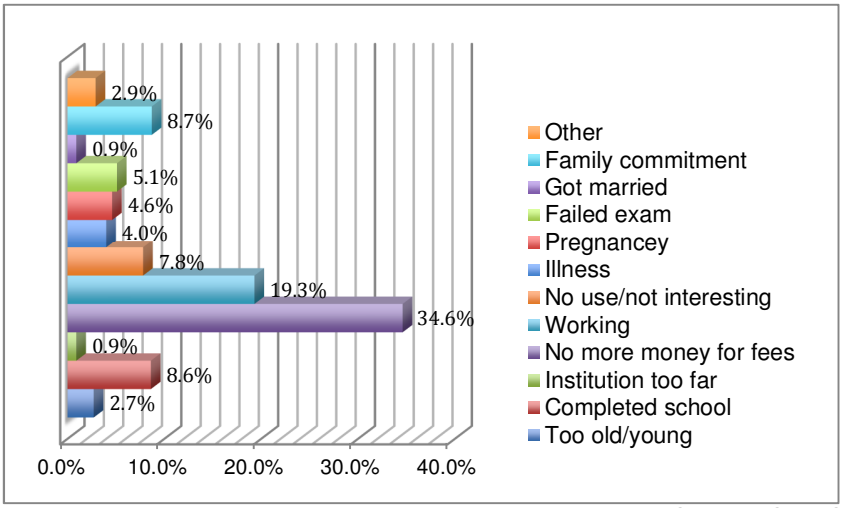
Source: StatsSA, 2007a

According to the General Household Survey (GHS), there was a total 28, 9 million South Africans who could read and write in 2007 compared to 3, 4 million who could not read and write in the same period (StatsSA,

2007a). Although individuals not receiving formal education decreased from 11.8% in 2002 to 9.3% in 2007, females at 11.3% were more likely not to receive formal education than males (7.1%) in 2007 (StatsSA, 2007a). The decline of individuals not receiving formal education is not relevant when one considers the approximate 4% gap between female and males with no formal education (Lehohla, 2007).

Figure X above reveals a disturbing trend given that majority of SA population is female; one would expect that as a result, more females would be able to read and write than males.

Figure: XI. Reasons provided for not attending an educational institution among persons aged 7–24 years



Source: StatsSA, 2007a.

For the purpose of this research it is important to report that of the 9.3% people that had not attended an education institution in 2007, between the ages 7 to 24[5], 8.7% attributed their non-attendance to family commitments. Pregnancy as reason for not attending an education institution accounted for 4.6%. 'Getting married' and 'the institution

[5] Ages 5 to 24 were the most active ages in terms of school attendance during 2007, accounting for 73.75% average of all individuals attending an education institution in South Africa (StatsSA, P0318, 2007).

being too far' accounted for 0.9% of the total individuals, who have not attended an educational institution, see Figure XI (StatsSA, 2007a).

Another report by Lehohla interestingly found that in 2006, 13.9% of teenage girls blamed pregnancy for not attending school (Lehohla, 2007). Females are also more likely to be discouraged to attend school in fear of violence and sexual abuse, a pattern highly prevalent in South Africa despite their likelihood to progress to secondary and FET phases (De Lannoy, Pendlebury, Rudolph & Hall, 2010).

It is equally important to note that De Lannoy et al., (2010) found no disparities between females and males enrolled in primary and secondary schools in South Africa; in a Gender Parity Index[6] (GPI) SA was measured at 1.01 (De Lannoy et al., 2010), meaning that female and male enrolment is equal at primary and secondary schools in South Africa (SA). This augurs well for the prospects of a county battling to reverse the inequalities of the past.

2.3 SOCIAL AND CULTURAL GENDER ANALYSIS: BACKGROUND OF A MALE-DOMINATED SOCIETY

It is common knowledge that more often than never customary laws in SA compromise females' legitimate rights as individuals and sometimes female-headed household rights to freedom. Joireman (2008) acclaims that female subordination to male dominance is attributed to customary laws often imposed by older males seeking to reclaim independence and control that was lost as a result of colonisation (Joireman, 2008). Embedded in normality of African customs is patriarchy practice and the imposition on females to become preoccupied with domestic chores, which inherently impacts on how

[6] According to De Lannoy et al., GPI is calculated by dividing the Gross Enrolment Ratio for females by the Gross Enrolment Ratio for males "*a GPI less than 1 indicates that there are fewer females than males in the formal education system in appropriation to the appropriate school-age population* (De Lannoy, 2010).

they actively engage and participate in economic activities (Bentley & Brookes, 2005). According to Gurumurthy (2004), there are a number of socio-cultural barriers that impact negatively on adoption and usage of ICT's by females and these include cultural attitudes; lack of ownership of communication assets such as radio and mobile phones; Lack of income; location, convenience and proximity of ICT resources; and domestic responsibilities, (Gurumurthy, 2004, p.24).

ICT's are not constrained by location and time thus allow individuals, especially females, to innovatively participate in income-generating activities while still carrying out household responsibilities that are a reflection of complex social status (Joireman, 2007). The fact that most females in SA live in rural areas where customary law protected under the constitution is dominant means that females run the risk of being regulated by males for the minimal access to ICT's. In fact Huyer et al. (2007) ascertains that "*gender roles and socio-cultural customs limit access and use of ICT's"* (Huyer et al.,2007).

The stigmatisation of female as commodities and therefore sexual objects submissive to male consent are justified through culture and have resulted in the spread of HIV AIDS in SA. The advent result is single-headed households, slow economic growth and less economic participation where child-headed households represent .04% of all households in SA (Meintjes, 2010).

Social and economic changes result in domestic violence, a fact truer in South Africa than in other parts of the world (Epstein & Kim, 2007; Bentley et al., 2005; Groth, 2002). Female-headed households are a possibility given that females look for independence and comfort away from abuse and male dominance; however sometimes the decision to become independent is not ideal and leads to exacerbated poverty and other economic problems (Kossoudji & Mueller, 1983). FHHH are likely

to have less income to spend on ICT's because of economic burden associated with single-headed households...

2.4 ECONOMIC GENDER ANALYSIS

The speed at which technology changes, and the catalytic role it plays in relation to economic growth indirectly infuses deeper and wider exclusion of the majority of the world's population from mainstream economic activities in a global society that is rapidly being shaped by technological changes; Africa is one of the hardest-hit continents where access to basic services such as reliable electricity is limited (Formatex, 2006).

It is also a foregone conclusion that females have as much rights to access to information as males and are important role-players in socio-economic development activities. In modern times, there have been concerns about increased discrimination and marginalisation of women in economic activities (Huyer et al, 2007).

The ability for females to actively participate in the economy has benefits for females as individuals, as household heads and eventually for the entire country economy. If females are employed, it provides them with "*a degree of financial independence from husbands and male relatives*" (Howcroft & Richardson, 2008). For the country, and by virtue of majority of population being female, it also means economic growth and success in poverty reduction (Tembon et al., 2008). It is however a sombre discovery that *"*women are concentrated in low-skilled, lower value-added jobs*"* (Gurumurthy, 2004, p. 1). Further, low-income groups tend to have less access to ICT's (Gurumurthy, 2004; Huyer et al., 2003). By virtue of females being exposed to lower incomes than males they therefore have to access resources such as ICT's (Huyer et al., 2003).

". . . Women are highly under-represented in administration, managerial,

and technical types of jobs in most of the countries in the world" (Dholakia et al, 2003, Pg. 15).

According to the African Gender and Development Index (2006), females in general earn less than males and black females in South Africa were particularly more vulnerable and earned far lesser than males because of past political imbalances (CGE, 2006).

There is a close link between ICT's, development, and economic growth. A variety of institutions and research documents such as the ones adopted during the World Summit on the Information Society (WSIS) highlight the promises of Information and Communication Technologies (ICT's) and accept the link between ICT's and social and economic development (Gilwald, 2005).

> For many around the globe, ICT's touch all facets of daily life, whether economic, social, political, or cultural. Not only do ICT's facilitate information sharing and knowledge management – both key elements of the Information Society – but they also provide people, businesses and governments with the essential networks to overcome the challenges of distance and time. (Huyer et al, 2005, p. 3).

Recent studies on the impact of telecommunications on economic growth in developing countries" have found that a 1% increase in mobile phone penetration increases overall economic growth by 6.75%" (Naidoo, 2006, Pg. 16). Another report by the World Bank investigating econometrics analysis of countries regarding Information Communications for development (2009) claimed that there is a correlation between penetration of broadband services and economic growth. Every 10-percentage point increase in penetration results to 1.3 percentage points increase in the economy (World Bank, 2009, p. 6). The challenge is to ensure integration of populations living in areas that are less-economically attractive such rural areas since they are often marginalised" (World Bank, 2009).

Therefore a rationale for empowerment of women becomes imperative in promoting an equal global information society, especially when one considers that 60% of the world's illiterates are women (Kaddah, 2005). "*Progress towards gender equality is directly correlated with the alleviation of global poverty" (*World Bank, 2007*).* It is therefore in the interests of society to seek ways with which to promote gender equality by using tools such as ICT's, which have long been identified as possible poverty-alleviation tools if applied correctly*.*

For an example, ICT's have been proven to enable women to access education and medical facilities much more effectively due to remote accessibility which renders useless the mobility issues on the part of women's ability to detach from family and household activities (UNDP, 2004; Huyer et al, 2005).

It is a widely known phenomenon that women have lesser access to and use of media and lesser representation in the power and decision-making positions related to telecommunications and ICT's, including in developed countries such as the US (Hafkin, 2003). According to Huyer et al (2005), "Poverty has a severe impact on women and girls, and households headed by women are especially affected*."* (Huyer et al, 2005, p. 3). This is further indication that females experience a fundamental barrier and benefit less from economic activities; it is likely that this experience impacts on adoption and use of ICT's by females and no reason exists to exempt South African females from this norm.

Research data suggests that more males than females are represented in senior management positions of IT companies. Congruent with other sector statistics, females form a majority in data-entry jobs of the IT industry (Gurumurthy, 2004).

In 2008, females in SA constituted more than half (15,7 million) of the total population group of working ages between 15-65 years but only 7,7 million of them were economically active. Of the 14,6 million males of working ages

between 15-65 years, 9,4 million were economically active (StatsSA, 2008a). This finding is corroborated by a report by the South African Institute of Race Relations (SAIRR) that claimed in 2007, females represented 47% of the labour force participation compared to 60% of men labour force participation (SAIRR, 2009/2010). Similarly StatsSA statistician-general at the time found that unemployment for females has been consistent and was recorded at 30.7% in 2006 in contrast to 21.1% for males during the same period (Lehohla, 2007).

In 2008 a significantly higher number of females occupied lowly jobs such as domestic work whereas more males occupied managerial posts and only clerk-related jobs did females surpass males (StatsSA, 2008c). More females are employed in the informal sector than males; unemployment rate during the same period was higher for females than for males at 26, 3% and 20, 6% respectively (StatsSA, 2008c).

Formal housing is used as an indicator for well-being of a household in that it is a basis to offer better services such as sanitation, good health and offers better protection from weather and other natural and physical threats and therefore better living standards for that household. Furthermore access to health clinics and hospitals, schools and libraries are associated with formal houses more so than informal houses (Hall, 2010b).

It is therefore possible to measure living standards by using selected variables such as food, water, sanitation, assets, source of income, health and housing types to measure living conditions. Capital accumulation has the potential to improve living conditions and increase disposable income for accessing other necessities such as ICT's (Martins, 2006). In South Africa, the cost to communicate is high and has been a bone for contention for many years.

Even though investment and deployment of communications

infrastructure increases the probability for populations to use the services consistent with modern community lifestyles living in urban and metro areas, it is the cost to communicate that guarantees adoption and usage. In South Africa, the cost to communicate is closely dependant affordability rather than abundance of communication infrastructure.

Gilwald, Stork, & Milek (2010), claim that increase in household income has a direct impact on consumption of ICT's such as mobile phones; the higher the income the higher the probability to own a mobile phone (Gilwald et al., 2010). Further, according to Lehohla, *"the percentage of children that went hungry was substantially higher for female-headed households"* in 2006 (Lehohla, 2007, p. 1). This could be translated to mean that female-headed households and female single parents are likely to compromise other household priorities in order to own or use ICT's.

2.4.1 Micro and Macro Environments: a Basis for Economic Participation

Microenvironments comprise of an immediate family system made up of social and physical surroundings and where members interact, offer one another support on a daily basis and share the living space, goods and other spatial tributes associated with individuals or families. Microsystems function within the macro environment of any nation (Donaldson & Boshoff, 2001).

" . . . From the sociological point of view . . . household also becomes a traditional institution for production, reproduction and child-rearing . . ." (Amoateng et al., 2007, p. 15).

According to Donaldson et al, (2001) in his research paper, there is a dependable relation between family structures and macro environments. A political system provides a platform by way of laws,

protection of citizens and regulations in order to guide families to positively contribute to society. Services such as provision of education and recreational facilities, sanitation, water, health, libraries and parks are amongst services associated to governments as means to encourage families to pay taxes, vote and comply with laws and regulations for the betterment of both the micro and macro environment (Donaldson et al, 2001).

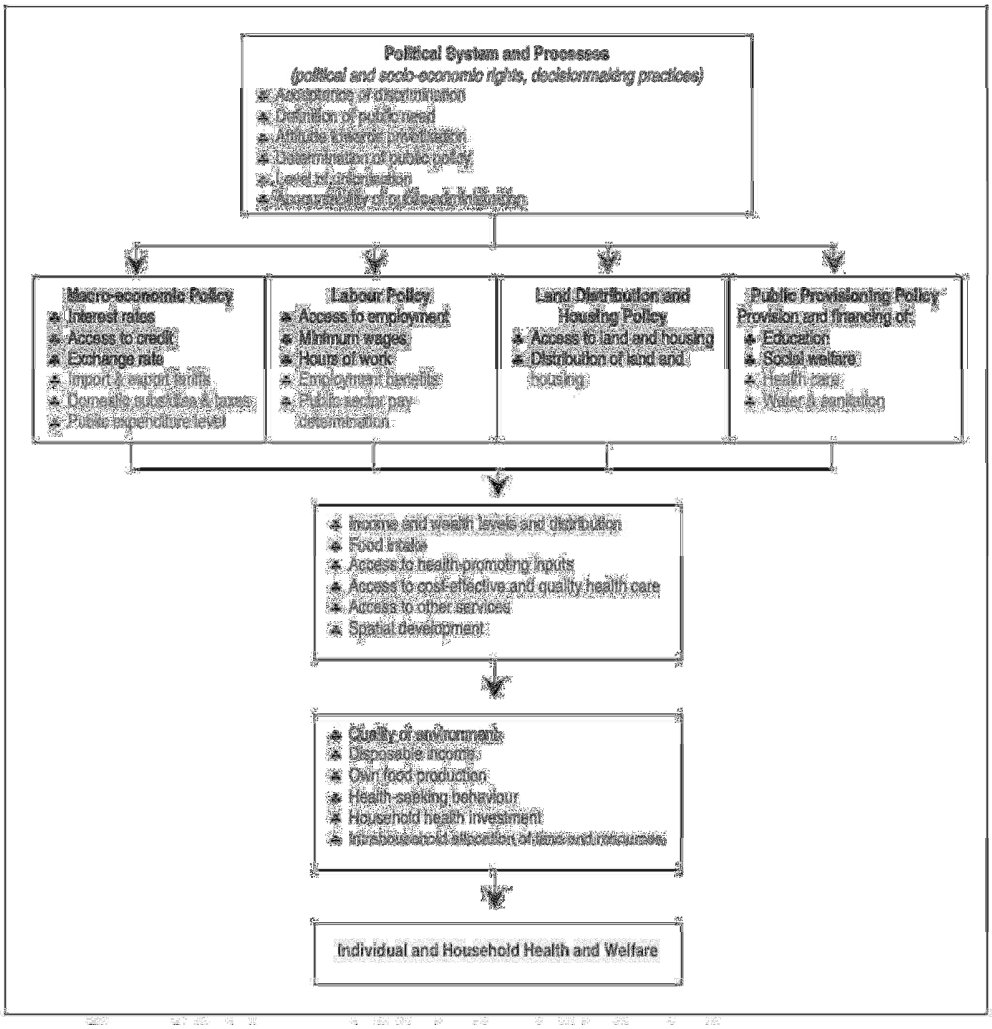
The economic system affords families an opportunity to be economically active through labour practices and investments with reasonable expectation for families to afford/dedicate expenditure to this economic system by procuring goods and services as provided by the economic system (Donaldson et al, 2001). The extent to which a family is economically active will determine the extent to which it can improve its members' quality of life. Interaction with and access to government services within the macro environment can result in greater opportunities for the families' microenvironment.

Donaldson et al, (2001) further argues that there "is interdependence between settlements, political and administrative systems"(Donaldson et al, 2001, p. 22). Stable political and economic environments will influence how communities interact socially and how service provision by government is administered in the physical environment. The poorer and weaker the administrative and political systems the more likely that households within that political system are exposed to less favourable housing structures and are less likely to have access to economic activities and access to facilities deemed necessary for prosperity, i.e. electricity, education, recreational facilities, water and sanitation.

Information and Communication Technologies (ICT's) become a secondary priority under poor circumstances when families do not have sufficient access to basic services such as health care, food, water and clean sanitation all of which exist in South Africa. Blaauw & Gilson,

(2001) explicitly illustrate the relation between macro (political) and micro (individual and household) environments, using health as the variable as illustrated in Figure XII below. The argument raised by Donaldson et al., (2001) compliments the illustration by Blaauw et al., (2001).

Figure: XII. Policy influences on individual and household health and welfare



Source: Blaauw et al., 2001

It is a fact that South Africa has many disparities including those associated with services delivery and access to facilities especially for non-urban areas. Given the vast population distribution and land area such disparities are not uncommon. Urban dwellings are more likely to have access to economic activity and access to better services such as health care facilities, schools, polices services and child-care facilities than rural dwellings (Hall, 2010c).

2.4.2 Rural Versus Urban Environments as a Measure for Economic Activity

It was equally important to contextualize the definition of urban versus rural households as a basis for access to economic prosperity, positive social attitude and access to better health care and welfare; all the above-mentioned are a pre-requisite and a basic human need as measured by many international agencies such as the United Nations and the World bank who are interested in global social change. Millennium Development Goals (MDG's) encapsulated these requisites by clearly highlighting the compounding impact of adequate housing conditions as a proxy for social, and economic well being and the prosperity of individuals and households (StatsSA, 2007a).

On the contrary, rural and/or informal settlements provide inadequate living conditions that dispel the notion of positive development. According to Katherine Hall in her StatsSA analysis (2010c), "non-urban areas offer few working opportunities and therefore adults living in such areas often move to urban areas in search of work thereby living usually women, children and the elderly to fend for themselves" (Hall, 2010c).

A household can be described as a societal system that constantly engages various environments in order to satisfy and serve the members (persons) of the household (Donaldson, et al., 2001). These environments are divided between micro and macro environments with

the latter being an environment largely influenced by societal, natural (physical) and structured (biological) settings beyond the micro environment and are largely functional systems that uniquely define political, economic, socio-cultural, and technological attributes of a nation, in this case South Africa.

The type of structure can be interpreted to represent the socio-economic status of the area, i.e. it can be argued that formal and separate household types are more likely to provide better physical security and comfort—therefore households in such structures are more likely to be situated in urban areas that have access to better education, better access to health, telecommunication and water services (Donaldson et al., 2001). Contrary, households made of informal and traditional structures are more likely to be poor and live in economically disadvantaged areas in peri-urban and rural areas; albeit the fact that in South Africa, there are informal settlements even in urban areas—they too are equally marginalised.

The researcher also draws an assumption that there is a relation between household geographic location and pattern of access to services as also suggested by Donaldson et al., (2001), including ICT's. A household located in a rural setting might be disadvantaged in its access to services and ICT's than a household located in a major or other urban household. More females than males live in rural areas in Sub-Saharan Africa (Huyer et al., 2003). According to Hall, "In SA, service provision and resources in rural areas lag far behind urban areas" (Hall, 2010c). ICT's are no exception where diffusion is concentrated in urban areas. For an example, reliable electricity and phone line infrastructure which ICT technologies such as the Internet is so dependent on, is lacking and service providers often argue that the initial investment costs are unjustifiable (Huyer, 2003).

Disposable income is a critical factor to accessing communications and

other ICT services. Even more true is that if a household is located in a rural environment, it has minimal exposure to economic activities and is more likely to be pre-occupied in prioritising other basic services like clean water, electricity and basics such as food, clothing and health services. Rural households might have little or no means to use money/income for ICT's, which are considered secondary to other priorities like food and sanitation.

The role of gender and household location is an important area of study for many countries such as SA where females are a majority. According to Nancy Hafkin in a policy paper she prepared for the United Nations Division for Advancement of Women (DAW) Expert Group Meeting in 2002, "*more women live in rural areas than men"* (Hafkin, 2002, p. 4). This means that females are more exposed to hardship than males.

Gender relations in households have an impact on how household members participate in economic activities, including the use of technologies. Females and female-headed households are generally assumed to be less economically active or are exposed to fewer opportunities to access information and assets critical to their development. The latter statement is truer for rural areas where it is known that resources are scarce.

A GCIS report on the communications environment in SA, 2005 found that 71% of rural residents perceived the pace of change to be too slow or little too slow (Struwig, 2005). In the same year 56% of rural residents claimed to have had exposure to television in the past seven days in contrast to 13% in Metro areas and a further 93% in rural areas had not listened to a radio station in the last seven days compared to 76% in urban areas (Struwig, 2005). More recently, Pogue, T. and Abrahams, L. (2010) found that economic production was largely skewed towards urban areas where only 30% of the population lived (Pogue et al, 2010).

More females than males living in rural areas spend less time employed.

But even in urban environments males dominate in terms of mean minutes spent per day of employment (CGD, 2006).

A study conducted by Taka & Molaba, (2003) evaluated telecommunications delivery to under-serviced areas of the Ekurhuleni metropolitan municipality. They found that Community Service Telephones (CST's) employed an average 26% females in contrast to the large percentage of males and that 80% of employees were between the ages of 21 and 34 years (Taka et al., 2003). It is clear that even in urban environments females appear to be participating less than males in economic activities.

2.4.2.1 Differences Between Female Headed Households (FHHH) and Male Headed Households (MHHH)

By virtue of societal dynamics affecting women status, female-headed households are less likely to have disposable income for use to consume ICT's versus prioritising children's access to basic needs.

Previous research assumptions suggest that FHH in less-developed countries are economically stressed and vulnerable to nutrition imbalances than joint or MHHH (Rogers, 1995). A study by Haidar & Kogi-Makau, (2009) found that child malnutrition in Ethiopian households was high among female children as well as female-headed households (Haidar et al., 2009). In the same study, Haidar et al., (2009) found that female-headed households in most developing countries were poorer, had less ownership and minimal access to government services and economic opportunities than male-headed households (Haidar et al., 2009); and in general the SA society is structured along "gender and class-based poverty and inequality" lines(Albertyn, & Hassim, 2003, p. 183).

Not having capital resources necessary to sustain livelihoods in Kenyan Rural and farming households was found to be a great inhibitor for women. For an example, it was found that 60% of women indicated that the biggest inhibitor

was access to finance and tools of production for farming purposes (Mikalista, 2010). Further, the study claims that 59% of female households indicated that they were negatively affected by the introduction of technology to labour and farming methodologies (Mikalista, 2010).

There is likelihood as proven by many scholars that gender discrimination permeates even in relation to adoption and usage of ICT's by FHHH's in South Africa and most of Africa because of the social and cultural dimensions, which impact on economic activity and therefore compromise FHHH and expose them to greater disadvantages in accessing and using ICT's. Other priorities such as food and health are more likely to take precedence than access to ICT's especially when one considers that only 20% of eastern and southern African households have access to adequate food supplies(Haidar et al., 2009). A report prepared by the Development & Training Services (DTS) for United States Agency for International Development (USAID) (1995) argues that females and males in SA have been affected differently by trade liberalisation; FHHH were a majority but were in the lower income distribution ranks of National Expenditure Deciles[7] at almost 15% of the total population in SA while over 15% of males occupied the higher deciles (DTS, 2006).

The ability to participate in economic activities affords one a chance to have an income, thereby an opportunity to spend and ultimately consume services. Without income, it is impossible to assume that a person can afford an opportunity to actively participate in economic activities let alone consume ICT's at the expense of other more pressing needs such as food, access to water, access to health and education. Living Standard Measures (LSM) are one but many ways that scientists, government and other civil organisations concerned with human

[7] National Expenditure Deciles (NED) *"are based on per capita expenditures and population weighted so that number of people in each decile equals ten percent of the total national population"* (DTS, 2006).

development measure welfare in relation to policy impact in households. Common indicators for such measures include consumption patterns, income, wealth, savings, human capital and anthropometrics (Scott, Steele, & Temesgen, 2002).

Household composition in relation to gender is but one of many crucial components for concern that is directly linked to economic and policy formulation particularly in developing countries. The reason for research in this subject is to better understand the dynamics of household economic activities, which inherently consist of ICT consumption. Many schools of thought are investigating the relation of household headship and the impact thereof to the economic wellbeing of society, with the assumption that female-headed households are poorer than those led by males (Budlender, 1997). The USAID found that male-headed households are more likely to benefit from increased growth and reduced poverty as a result of further liberalisation of trade in SA (DTS, 2006).

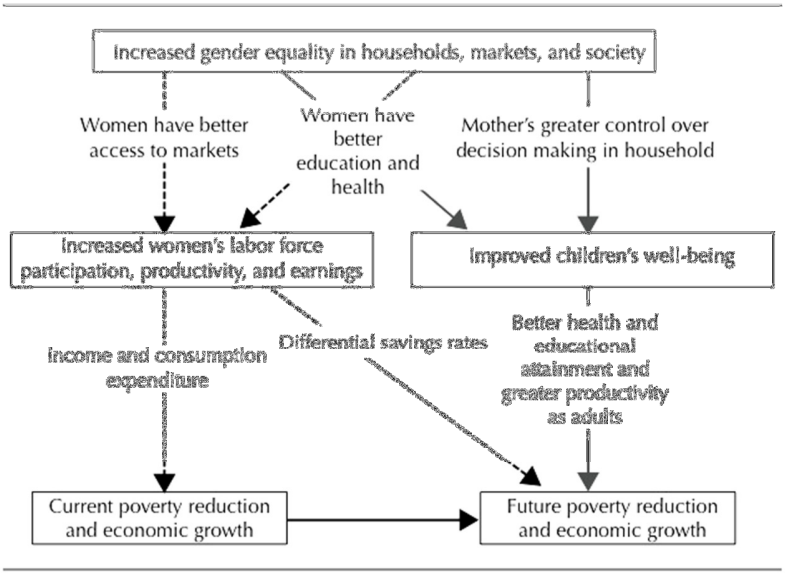
According to Ndungu in an online article about labour markets and females in SA, the economic crisis between 2008 and 2009 exacerbated the number of females that are not economically active in South Africa thereby necessitating females and FHHH to rely of extended families and friends for support (Ndungu, 2010). Could it be that reliance on other family members and friends will compromise access and usage of ICT's by females? Ndungu (2010) affirms the "negative social consequences" borne out of this dependency that it results in:

> " . . . Loss of independence, dignity and being forced to remain in abusive relationships . . ." (Ndungu, 2010, p. 1).

Whereas Buvinic, Morrison, Ofosu-Amaah & Sjoblom, (2008) justify that poverty reduction and economic growth can be systematically reduced by affording equal opportunities to female and male households, markets and society (Buvinic**,** 2008). The Figure below was used by Buvinic' et al., (2008),

and was sourced from the World Bank shows the relation between gender equality and macro economic prosperity. Figure XIII below illustrates the potential for countries like SA if they are to adopt proactive positioning of females in society dominated by females.

Figure: XIII. Women's Earnings, Children's Well-Being, and Aggregate Poverty Reduction and Economic Growth: The Pathway



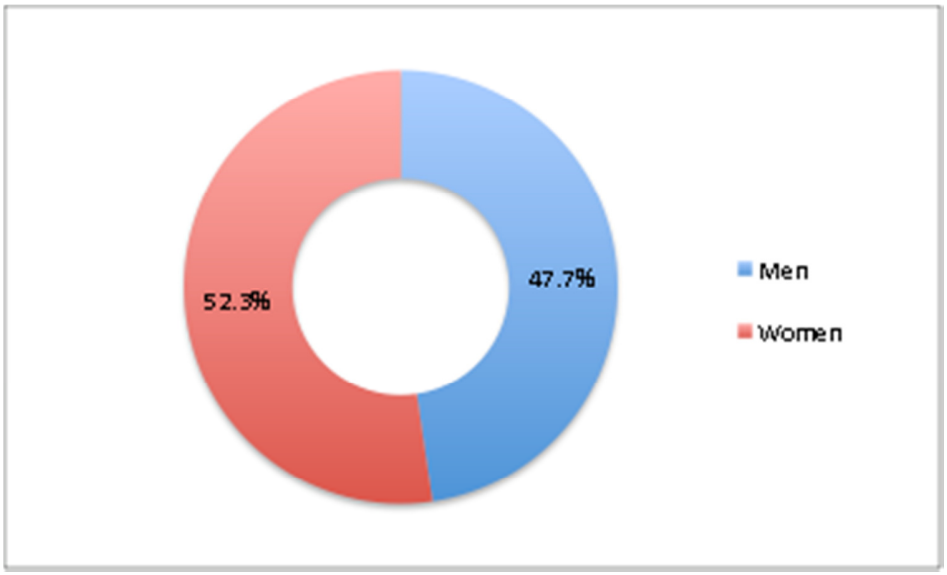
Source: Buvinc, 2008

Based on the illustration above, it is clear that logic should prevail where females form the core subjects for empowerment in South Africa and central to ICT policy and regulatory scrutiny as means to fast-track socio-economic development in SA.

2.4.3 Labour Market Statistics: Employment as a Measure of Economic Activity

According to a StatsSA Report, (2007) there were a total 30, 3 million persons of the total population that were of a working age[8]. 15, 7 million of those were females while males constituted 14, 6 million of that population during the same period, see Figure XIV below (StatsSA, 2008c). Figure XV (next page) illustrates that 12, 7 million of the total population of working age were employed in 2007, 4, 1 million were unemployed and 13, 4 were not economically active (StatsSA, 2007a & 2010).

Figure: XIV. Percent (%) of Population of Working Age by Gender (15-64 years)

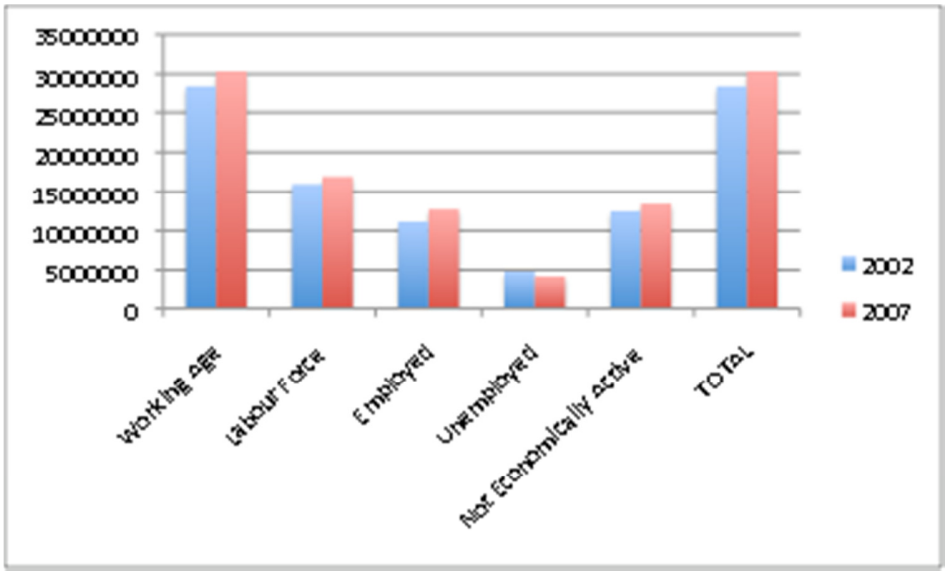


Source: StatsaSA, 2007b

The total labour force of South Africa has shown significant increase. In 2007 Quarter 1, the estimated population was 16, 9 million, today it is estimated at 17, 1 million, (StatsSA, 2008c).

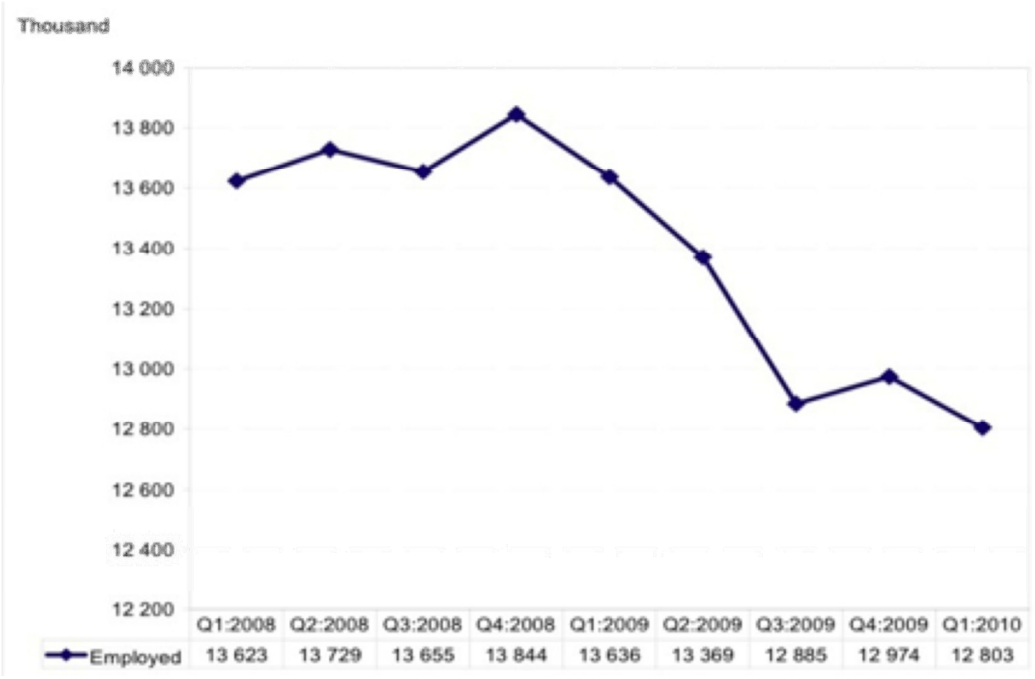
[8] According to Statistic South Africa, 'working-age population' comprises of all persons aged between 15-64 years (StatsSA, 2008).

Figure: XV. Trends of Key elements of the Labour Market: Population of Working Age, 2002/2007



Source: StatsaSA, 2007b

Figure: XVI. Total Employment, quarter 1: 2008 to quarter 1: 2010



Source: StatsSA, 2010

Although there was an increase between 2002 and 2007 of the employed population, a slight decline was experienced in the number of employed population between 2008 and 2010 at 13, 600, 000 and 12, 800 million less employment respectively, see Figure XVI (StatsSA, 2010).

From October to December 2008, there was a steady decline in unemployed persons from 4, 1 million to about 3, 9 million (StatsSA, 2008c). Furthermore, unemployment is higher among males than females in the same period. Western Cape showed the most significant reduction of unemployment than other provinces (StatsSA, 2008c).The informal sector employment contribution was lead by the trade sector at a 1060 thousand new employments (StatsSA, 2008c).

By 2008, the not-economically[9] active population had risen to approximately 13, 2 million persons with students taking the significant

[9] According to StatsSA this group consists of all person between the ages 15-6 years old who are not employed (StatsSA, 2008).

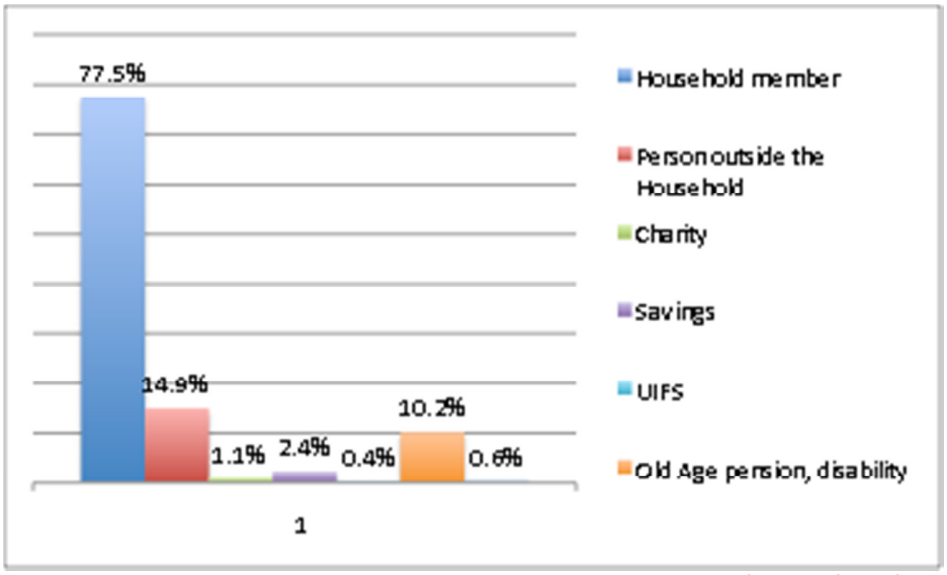
part at 44, 2% (5, 8 million persons of the total economically inactive population). Homemakers follow closely at 19, 8% (2, 6 million).It is likely that the decline in employment effected females more than males judging by the limiting influence they have at managerial level.

By 2009, females made up 43% of the total employed population while only 4.5% were CEO's or board chairs during the same period (Parker, 2009).

According to James, Smith, Roodt, Primo, & Evans, (2006) although there are an "*increasing number of females occupying positions of leadership in South Africa,"* there is a female disproportional participation in all areas of the South African workforce (James et al., 2006, p. 37).

According to the General Household Survey, (2007) 77% of household members aged between 15 to 65 years who were not working stated that a family member provided their means of support. Another 14.9% household members claimed that a person outside the household was their means of support. Only 10, 2% relied on government grants. Government grants experienced the most significant increase as the main means of support for unemployed South Africans at 6.8% in 2002 to 10.2% in 2007; see Graph 5 (Source StatsSA, 2007).

Figure: XVII. Means of Support for Individuals that were not Working in Percent (%), 2007



Source StatsSA, 2007a

The fact that 77% of the total population not working in 2007 has implications for ICT's adoption and usage. The implications apply to both the receiver and the giver of the support—prioritisation of necessities becomes key when budget is stretched therefore limiting on ICT spend. The likelihood of females being more affected in this sense can never be over-emphasized.

It is true to acclaim that despite gender equality being reflected in all legislative instruments of South Africa, gender-based disparities still exist even in the ICT industry (Linders, 2007). The Department of Communications as the responsible government organ for ICT's has made progress in employment of females in the sector with over 70% of staff being female and 17% in senior management positions (Linders, 2007). This however should not translate to mean that females have equal opportunities based on employment quotas displayed by the Department responsible for ICT's.

2.5 LEGISLATIVE AND REGULATORY ENVIRONMENTS GENDER ANALYSIS

An important principle of the Constitution of SA is gender equality on the basis of among other factors that the history of female subordination as a practice was deeply justified by means of traditional leadership, also recognised by the Constitution (Albertyn et al., 2003). Embedded gender principles in the Constitution, such as the equality clause are guaranteed in the Bill of Rights and led to a systemic integration of gender in all institutions of SA democracy. This is despite the rejection by traditional leaders who wanted the equality clause to be exclusive subject to the authority of customary laws (Albertyn et al, 2003).

Needless to say that the challenge for many countries is the harmonious function of policy and legal frameworks in order to better impact female daily lives—in SA like many African countries, it is the cultural norms that influence female equal participation and therefore policy and legal instruments need to be able to provide a conducive platform to protect females even in the private arena where discriminatory cultural practices render them socially inferior to males(Albertyn et al, 2003). The possibilities therefore for ICT policy to be exempt from this argument are minimal if not non-existent and in fact could lead to further discriminatory practice against female adoption of ICT's despite the commendable progress made as a result of the Constitution, which in turn influenced the formation of the National Gender Policy Framework (CGD, 2006).

In comparison to other countries, the South African legislative and policy environments fare good with only minor flaws to some gender laws and policies (CGD, 2006). In terms of ICT's the gender gap was found to be small as compared to countries with low ICT penetration

rates meaning the legislation has gone some distance to address disparities (Huyer et al., 2007).

The concept of ICT for development was a major influence on the policies adopted in SA, though many schools of thought argue that the desired results were not achieved. For an example, the fact that South Africa is among the countries with high telecommunication prices and the government's double role of a player and a referee has derailed critical policy objectives for adoption and usage of ICT's.

In 2000, the United Nations, which South Africa is a member convened at the headquarters to adopt United Nations Millennium Declaration which aimed at proactive and strategic action to reduce poverty, improve on education, health and gender equality. There were time-bound goals and resolutions adopted known as the Millennium Development Goals (MDG's). There is a strong correlation between achievement of the MDG's and ICT's. In fact, ICT's are part of the MDG's[10] (Minges, 2003, p. 3). Furthermore, ICT's can vastly influence the attainment of the rest of the MDG's because of their crosscutting and catalytic role:

[10] Goal 8: Target 8: *In cooperation with the private sector, make available the benefits of new technologies, especially information and communications* (UNDP, 2010).

Table A. Role of ICT's in MDG's Attainment	
GOAL/TARGET	**ROLE OF ICTS**
1. Eradicate extreme poverty and hunger	Increase access to market information and reduce transaction costs for poor farmers and traders
2. Achieve universal primary education	Increase supply of trained teachers through ICT-enhanced distance training
3. Promote gender equality and empower women	Deliver educational and literacy programmes specifically targeted to poor girls and women using appropriate technologies
4. Reduce child mortality	Increase access of rural care-givers to specialist support and remote diagnosis
5. Improve maternal health	Enhance delivery of basic and in-service training for health workers
6. Combat HIV/AIDS, malaria, and other diseases	Increase monitoring and information-sharing on disease and famine
7. Ensure environmental sustainability	Remote sensing technologies and communications networks permit more effective monitoring, resource management, mitigation of environmental risks
Source: Minges, 2003, p.8.	

In order for countries to achieve these goals, there needs to be an enabling policy and regulatory environments that seeks to promote among others, infrastructural growth, universal access, competition as means to drive down costs—and enable ICT's to be catalytic in promoting "equity and inclusion" as illustrated in many developed countries (Gilwald, & Stork 2007b, p. 2).

Huyer, Hafkin, Ertl, & Dryburgh, (2005) argue that women are widely acknowledged to be instrumental in the achievement of all the MGD goals. There is a rationale to bridge the gap between males and females. Investment to female education and access to opportunities is

fundamental because "societies that discriminate on the basis of gender pay a high price in terms of their ability to reduce poverty and further economic development" (Huyer, et al.,2005, p.3).

According to Prakash Naidoo of Financial Mail, "*the Sub-Saharan region is far from achieving any of the United Nations' Millennium Development Goals,*" which also include gender issues, Millennium goal 3[11] (Naidoo, 2007; Awe, 2007). Since South Africa is a signatory of this world initiative, it serves the purpose for government to take into account, inherent access and usage of ICT's implications to gender and development in general; ICT's are the primary driver of any knowledge economy (Awe, 2007).

Therefore without composite intervention to addressing gender issues in society, the MDG's will not be achieved. Huyer et al summarizes the gender equality and ICT implications in attainment of MDG's:

Table B. Gender Equality, MDG's and ICT Applications

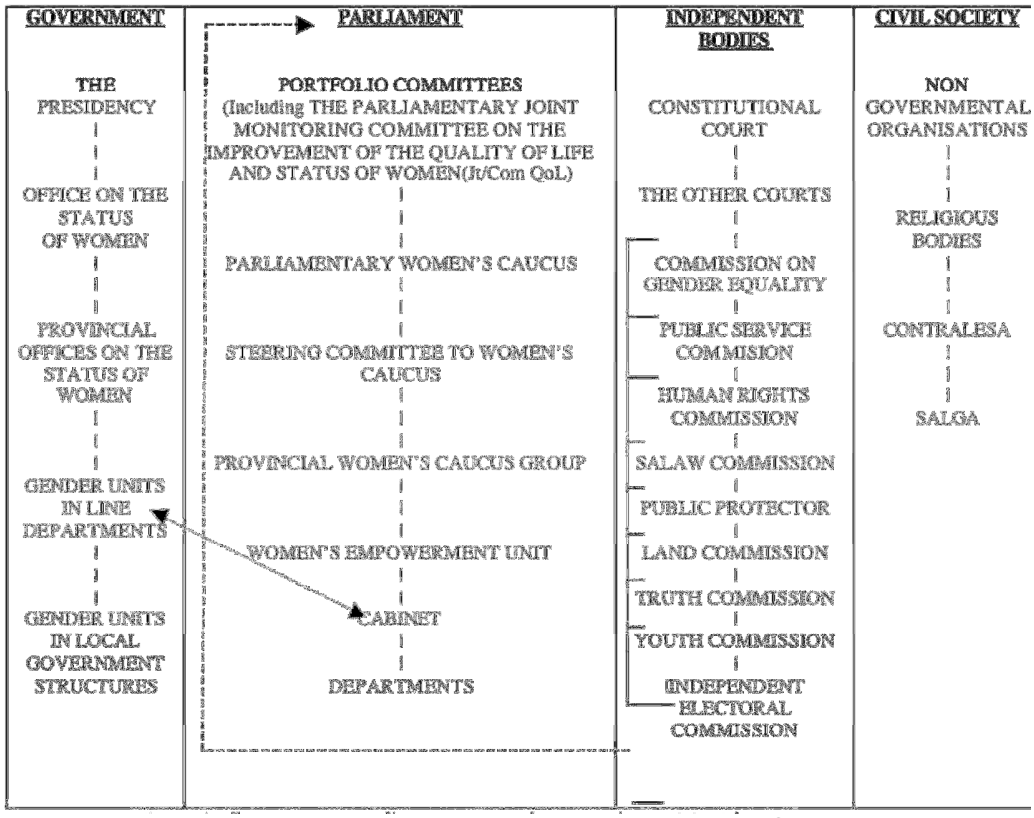
MDG	GE DIMENSIONS	GE AND ICT APPLICATIONS
Goal 1: Eradicate extreme poverty and hunger	Female-headed households are disproportionately poor; women tend to have less access to financial, technical and labour resources; women are critical agents for poverty reduction, and produce most of the food consumed locally in food-insecure areas.	ICT's can provide information on agriculture, weather, pricing and marketing to support women's food production and income-earning enterprises. ICT's can provide information to help women care for their families and improve their well-being.
Goal 2: Achieve universal primary education	Girls and women have lower levels of school enrolment; women make up 2/3 of the world's illiterate population.	ICT's can deliver literacy and education to girls and women where they live and work; they can open up new opportunities and provide flexible learning times.
Goal 3: Promote gender equality and empower women	Women are central agents of development in their families and societies; the MDG's cannot be achieved without the full	ICT's are important tools to promote gender equality and women's empowerment, and to help women achieve greater success in their

11 Goal 3: gender equality and women's empowerment (Huyer et al, 2007, Pg. 16).

	mainstreaming of women and gender equality.	income generating and domestic activities.
Goal 4: Reduce child mortality Goal 5: Improve maternal health	Women are responsible for nutrition of their families and subsistence food production in much of the world.	ICT's can provide improved information on nutrition and agriculture; facilitate health networks and information to health professionals, and; monitor health trends.
Goal 6: Combat HIV/AIDS, malaria and other diseases reasons.	Women make up the majority of HIV- infected persons in Sub-Saharan Africa; women and girls are more vulnerable to infection for sociological, physiological, economic and cultural	ICT's can provide information on prevention and treatment; facilitate health networks and information for health professionals, and; facilitate interaction with patients in rural areas.
Goal 7: Ensure environmental sustainability	Women are important environmental managers in their communities; they own much of the world's remaining traditional and indigenous knowledge.	ICT's can provide information on the environmental situation, weather, and sustainable agricultural practices; they can disseminate women's traditional knowledge and experience to promote sustainable development.
Goal 8: Develop global partnerships	ICT's can provide a vehicle to incorporate women's perspectives and knowledge into global partnerships for development. They provide a venue for women to express their views; they also provide a way to reach women and allow them to participate where they live and work.	
Source: Huyer et al, 2005,		

In order to streamline gender in all spheres of SA society and supported by the highest form of legislation in SA, the Constitution, gender machinery was developed by government to promote consistency, give impetus to and avoid duplication of gender initiatives. The Figure XVIII below was adapted from the South Africa's Beijing +5 Report as prepared by the Office on the Status of Women (Kornegay, 2000). It seeks to illustrate the various components of the gender machinery as a tool for advancement of equality in SA.

Figure: XVIII. Structure and Components of the National Machinery



Source: Kornegay, 2000

In line with global policies that enforce conditional incentives subject to implementation of globally driven policy and regulatory reform including in the ICT's environment, the SA policy intervention is testament to government's commitment to prioritise gender in order to achieve social and economic goals.

Contrary to the aspired progressive policy environment, South Africa has failed to provide an enabling ICT environment that affords citizens to adopt and use ICT's independent from economic and gender-based disparities and according to the USAASA Strategic Plan Document, the existing access gaps are an illustration of market that has failed to address inequalities that have occurred despite policy achievements,

citing the cost to communicate as being one of the major inhibitors to achievement of universal access and usage. "Many parts of the country remain ICT poor" (USAASA, 2009/10, p. 14).

Despite the notable inclusion of gender issues in the countries legislation, critics argue that the implementation of this policy intervention has not yielded the desired outcomes and this is evident in the high costs associated with telecommunications, which many argue they are among the highest in the world. Inevitably, higher costs imply lower efficiency and less access and therefore this exacerbates the very problem that is being resolved and does little to decrease gender inequalities. Lack of a competitive telecommunications environment results in high costs and minimizes accessibility to related services and marginalisation of the poor who have limited capital to spend on ICT usage and access (Gilwald et al., 2007b).

It is however very surprising that South Africa fared differently when Sophia Huyer et al (2007) investigated Internet penetration; the relationship between Internet penetration and proportion of female Internet users in South Africa favoured females who had close to 50% access to Internet in a country that fared at less than 10% of the total population who had access to the Internet in 2007 (Huyer et al, 2007). There seemed to be no gender divide in relation to Internet access during this period but the fact that only 10% of the total population had access to the Internet is a cause for concern when one considers the broader objectives of access and usage of ICT's. And in fact, the outlook may have been different had one included information on other ICT tools.

In conclusion, adopting policies, which have proved successful elsewhere does not mean that they will be successful in another country with different social and political dynamics. In 14 years of progressive policies in South Africa, particularly in the telecommunications sector

and emanating from rigorous dialogue and public consultations, policies have not resulted in the desired outcomes and continue to derail government's commitment to equality.

2.6 ICT POLICY AND REGULATORY IMPLICATIONS

ICT's play a catalytic role in socio-economic growth of any country, provided there is abundance of appropriate infrastructural support that is underpinned by a policy and regulatory environment conducive for promoting certainty, predictability, competition, and efficiency (Naidoo, 2006). In her doctoral thesis at WITS University, Kameshnee Naidoo, (2006) states that "telecommunications infrastructure is the third most important factor in the location decisions of multinational corporations, after political stability and a skilled workforce" (Naidoo, 2006, p.16). SA workforce should constitute a majority of females based on population ratios; therefore prioritisation of digital inclusion projects will have positive spin-offs for the country.

Moreover, universal access is a legislated right in South Africa. Gender-neutral adoption and usage of ICT's is as core to policy as equality is to the Constitution. Broadband as a facilitator for ICT adoption requires universal access to networks and services as a foundation (ITU, 2010). ICT Policy and regulatory alignment is therefore critical in order to benefit from broadband technologies and services (ITU, 2010).The pervasive nature of these technologies has forced global bodies to mandate governments to reform the ICT policy and regulatory environments as important steps towards equal access to ICT's, and SA has in all intent adhered to these ITU requirements.

Competition, universal access and affordability are the three most important facilitators to an enabling environment (ITU, 2010). ICT regulation needs to be competent enough to yield policy objectives as

influenced by the facilitators mentioned above.

For the same reasons, female's adoption and usage of ICT's is of equal importance to that of men and will allow both sexes to equally reap benefits from these technologies (Mansell & Wehn, 1998; UNDP, 2004). Often regulatory uncertainty results in citizens' legal right, especially females, to economic activities compromised by socially constructed customary laws that constraint rather than empower females (Joireman, 2007).

The assumption that women's access automatically keeps in step with the spread of ICT's cannot be a basis to drive policy, instead, governments must play a proactive role in ensuring systemic intervention to counter any inequalities that may occur as a result of women's historical discrimination in life in general. Equally important are instruments for research and evaluation as integral tools for policy development. According to Huyer, 2007, "gender gaps that accompany the introduction of newer ICT's persist even in developed countries with higher ICT penetration and are dramatic in developing countries, for an example, 32% of Internet users in India are women"(Huyer, 2007, p. 2*).*

The Economic Commission for Africa (ECA) acknowledges that females in general are likely to have limits to access and use of technology and communication facilities (ECA, 2006).

ICT intervention projects targeting females can have a significant impact in addressing the inequalities in ICT access and usage by women (Sengupta, 2007), provided ample support mechanisms emanating from policy and regulatory spheres are in place.

The World Report argues that the rapid growth of telecommunications in developing countries is stimulated by liberalization policies (McCullough, 2003). In a survey conducted by Paul Wilson of the Asia Pacific Network Information Centre (APNIC), users were asked to name resources they felt were most critical for accessing the Internet and

Infrastructural requirements came second with 32%, second to applications such as email, World Wide Web (WWW) which 40% of respondents deemed as critical resources (Wilson, 2008). Access and usage therefore has to be based on appropriate policies and regulatory instruments that encourage inclusive adoption.

ICT penetration is subject to levels of policy and regulatory intervention as means to dispel negative outcomes often a result of poor adoption and planning. Reason exists for policy and regulatory practices to carefully select from best practice as means to circumvent failure. Whether regulation can be used as a tool for systemic stimulation of FHHH and females adoption and usage in general remains open for debate—the challenge being the level of regulation versus non-regulation (World Bank, 2009).

The entrenchment of social, political and economic disparities in South Africa, especially against females means that they are most disadvantaged. Moreover, the high cost of telecommunication in SA means females are the most affected as presented in the literature review.

Despite adopting an ex ante[12] regulatory regime, SA is grappling with market power, high prices and low quality of service, all are signs of an ineffective regime that has impacted negatively on consumers, particularly females.

The scarcity of related (ICT) data informs the basis for this research and the ICT Survey on Access and Usage as well as the Focus Group Discussions provides valuable data for use in national statistics on ICT's and Gender.

[12] Ex Ante regulation is defined by the ITU as *"sector-specific, forward-looking regulation to prevent or promote certain activities* (ITU, 2010).

CHAPTER 3: THE RESEARCH METHODOLOGY FOR GENDER-BASED ANALYSIS

This study investigates a gender-based view of ICT adoption and usage in South Africa covering the period 2005 to 2010. The reasons for scoping the study over this period are that the researcher was able to participate in the first household ICT access and usage survey to be conducted in South Africa in 2007. The research was therefore designed to cover the period immediately before and immediately after the survey, as this enabled the data collected to be analysed within a broader timeframe.

3.1 RESEARCH PROBLEM: WHAT LED US TO BELIEVE THERE IS A DIFFERENCE?

Empirical data on discrimination based on gender has been present for centuries; therefore we cannot assume that while ICT's spread, it will automatically eliminate discrimination against females in a society entrenched in past discriminatory practices. Women are almost always likely to be excluded from the mainstream of economic prosperity due to socio-cultural arrangements that favour males. This is even truer in the African continent where females have been deliberately subjected to be submissive to males. This has led us to believe that there is a pattern of gender influence in the manner in which women access and use ICT's. According to Huyer et al., (2007), " . . . women use ICT's less often and spend less time using them, engage in less diverse uses and are less likely to find jobs in the ICT sector, particularly in higher positions" (Huyer, 2007, p. 20). With a few exceptions, comparison among countries shows that women are marginalised with respect to Internet usage (Huyer et al., 2007).

The need to gather intelligence on those who are likely to be discriminated against from mainstream of progressive society can never be underrated because it will provide government with necessary information to take corrective action.

Different socio-economic realities divided along the gender lines affect females and males differently, including ICT's (Huyer et al., 2007).

. . . Studies have shown different levels of access for male and female Internet, mobile and fixed line telephone users within the same household

> . . . For example a survey in Ethiopia revealed that male household members often locked the landline telephone during the day so that women in the household could not use it . . . (Huyer et al, 2007, p. 37)

The scarcity of related (ICT) data informs the basis for this research and the ICT Survey on Access and Usage will prove valuable for national statistics on ICT's and gender. This paper seeks to explore gender differences in adoption and use of ICT's in South Africa in order to verify whether male dominance is at play with respect to access and usage. In addition, it will be equally important to establish whether female-headed households are affected differently in relation to access and usage of ICT's.

At a backdrop of such a favourable legislative background, this paper seeks to measure the impact of ICT policy and regulation by measuring whether any gender differences exist in the adoption of ICT's, with particular focus on mobile, landline telephones and the Internet.

3.1.1 Problem Statement

South Africa is a country with a past filled with racial and cultural discrimination practices deliberately aimed to exclude among others,

females from involvement in economic activities and access to equal social status. It is against this background that this report seeks to review whether such discrimination influences adoption and use of ICT's and affects female participation in the information society.

In general and in the traditional African context, females are always considered being less advantaged than males. Access to education, land, and higher occupational posts has always favoured males more than females and often females receive lower incomes and are generally more exposed to discrimination. Furthermore in Africa, household duties and family responsibilities are generally considered to be a female responsibility. These gender differences may affect ICT adoption and usage.

Access and usage of ICT services is largely dependent on policy and regulatory instruments and their ability to provide an enabling environment in terms of infrastructure, bandwidth capabilities, cost and content in order to uphold public interest objectives. Incoherent telecommunication policies result in ineffective ICT adoption strategies, which may in turn have serious negative implications that deepen the social inequalities such as gender-based inequalities currently defining SA. Lack of accurate, consistent, timely and comparable data and statistics, especially in the African continent deprives policy makers the relevant information that informs policy, in particular in relation to gender difference in ICT adoption and usage.

Despite technological advances in the global telecommunications, the liberalization of the sector, high penetration of mobile access and necessary infrastructure, the telecommunications sector of South Africa is still faced with many challenges including high cost, low household Internet access levels and minimal bandwidth, (African e-Index, 2005). The telecommunications infrastructure, particularly landline telephones is not evenly spread across the demographics of the country. These

challenges impede the successful adoption and use of ICT's by society, especially the poor and marginalised groups such as females.

3.1.2 Purpose Statement

The paper seeks to establish whether the economic, cultural, and educational gender dynamics have an influence or impact on females and female-headed household's adoption and use of ICT's. Given the legislative and regulatory environment progress, it is desirable to want to measure whether the impact of such progress has translated to an empowered and equal society.

Because women are a majority of the South African population, their participation in information society programmes by way of adoption and usage of mobile and Internet technologies need to be prioritised if any developmental goals are to be achieved. ICT's have been identified as catalytic in this regard. Consistent with world trends, ICT adoption is divided along societal and gender lines where the rich have more than the poor therefore more likely to adopt new technologies and where males seem to dominate ownership and access to ICT's, except in the younger generations where the gap is lesser (Gilwald, 2005; Gay, Mahon, Devonish, Alleyne, & Alleyne, 2006).

Research of Household data has only recently been categorised according to gender in South Africa. The basis for this research is a means to provide policy makers with appropriate household data on adoption and usage patterns, notwithstanding the influence of other societal dynamics that may contribute to gender differences in South Africa. The lack of data at household level is particularly evident with respect to gender issues, (Hafkin, 2003).

"Without such data, it is difficult if not impossible to make the case for inclusion of gender issues in ICT policies, plans and strategies for policy makers" (World Bank, 2008, p.).

This study uses mobile and fixed telephony as a basis for measurement of Internet access, which is an important measurement or an information society. The purpose of this research is to understand gender differences in adoption and usage of ICT's in order to contribute to policy and regulation in enabling gender-neutral adoption and usage of ICT's in South Africa.

The research paper therefore seeks to identify policy and regulatory gaps and provide recommendations that support a gender-neutral ICT environment.

3.1.2.1 The research question therefore becomes:

How does gender and socio-economic factors impact on adoption and usage of ICT's for individuals and for households?

In order to answer this question, the following questions will help support the main question:

1. **What are the differences in ICT adoption and usage between female and males and between MHHH and FHHH?**
2. **If there are differences, what are the main reasons behind the differences in the adoption of these technologies?**
3. **What is the relation between income and gender with respect to ICT adoption and usage?**
4. **Do males or MHHH have higher level of education than females or FHHH?**
5. **What role do income, location and age play to influence the use of technology by females and males?**

3.1.3 Limitations of the Study

The researcher acknowledges that adoption of ICT's alone will not accelerate nor contribute to the usage of ICT's in any society. And that it is education and literacy that influence usage and adoption of ICT's. Further, even in the developed world and in connected societies, gaps

in usage are evident. However, this study focused on gender-based ICT adoption and usage and its scope did not include the relationship of ICT for development to other contributing factors to socio-economic development.

Although it is in the interest of this study to investigate the influence of cost to communicate or to purchase ICT's as well as the influence of age in adoption and usage of ICT's, the researcher deliberately excluded these dimensions in his research study because it would have broadened and therefore diluted the area of study.

There is ample literature on this subject regarding adoption patterns and the role of education, literacy, age and cost. However the researcher is of the opinion that these are not critically important to this research focus per se.

3.2 THE RESEARCH METHODOLOGY

This study is a cross-sectional study that seeks to measure the adoption of ICT's by South Africans, with a particular focus on gender influence. By utilising a mixed-methods approach, the research methodology seeks to unravel the complex adoption patterns of ICT's in order to contribute to the limited literature on gender-related ICT's access and usage in South Africa.

The mixed-methods approach has been around in research since the 1930's and has constantly been refined to arrive as close to accuracy as possible; mixed-methods approaches provides an empirical approach to unravel social patterns under investigation (Kleining& Will, 2001; Van Zyl, 2003).

Moreover, gender studies have been conducted for many years using the above-mentioned methods and the method has evolved in order to unravel the complex interdependent relationships and patterns that influence gender differences in society, and ICT's are no exception

(Welman& Kruger, 2004).

According to Kelle (2001), the use of quantitative and qualitative research methods in one research project has often resulted in meaningful insights into the phenomena under investigation (Kelle, 2001). Further, mixed-method approach is commonly used for investigating gender across research disciplines (Westmarland, 2001). According to Westmarland, (2001), "although a survey may be the best way to discover the prevalence of problems, interviews are needed to fully understand women's experiences and theories these experiences with a view towards social change" *(*Westmarland, 2001, p. 10).

For this research, the quantitative survey may tell us that women have more mobiles than men, but it will not reveal how this impacts their lives within households or how more ownership and mobile access can assist to empower women at an individual level.

The nature of macro research methods, i.e. the quantitative method, is such that it does not allow the researcher to delve deeper into social processes such as responsibilities that may influence differently female and female-headed households to use mobile phones to their advantage; the complementary use of qualitative research in order to constructively supplement the quantitative results is therefore necessary (Cupchik, 2001; Kelle, 2001). Kelle, (2001), argues in her paper regarding gender differences in the labour market

The combination of qualitative and quantitative results can be used to explain statistical phenomena on an aggregate level which are difficult to understand at the first glance . . . they provided different kinds of information about potential causes of the women's different labour market participation (Kelle, 2001, p. 17).

Triangulation as a research method is seen as central to integration of research methods such as qualitative and quantitative research methods; and is well documented (Kelle, 2001). In reference to this

research report the method utilised known as the *'between-method triangulation;'* attempts to analyse the qualitative and quantitative data separately and relate the results complementarily to the two research methods (Kelle, 2001).

Further, the Quantitative method enables the research to assume a macroscopic perspective of social structures contrary to qualitative methods that draw strength from providing a synopsis to social micro-processes of the social phenomena (Kelle, 2001). Westmarland, (2001), argues for the use of both qualitative and quantitative methods in order to unravel issues about gender and income:

> A survey can tell us that women working outside the home generally get paid less than men, but does not explain how this makes women feel and how it affects their lives as a whole, (Westmarland, 2001, p. 10).

The triangulation method is used to interrogate the theoretical framework in order to better understand how the social, economic and educational factors impact of ICT adoption and usage. It is the topic and the questions raised that influenced the researcher to adopt a mixed-approach research method (Van Zyl, 2003).

Firstly, the available international literature on socio-political and economic gender differences was used as secondary research to provide a grounded theoretical approach to this research methodology to further support the findings.

Secondly, Income, education and employment are critical indicators for measuring socio-economic status for females and inherently so their adoption and usage of ICT's (ITU, 2010). The variables mentioned above are significant to the survey process adopted for the quantitative research component of this report.

Empirical evidence suggests that women are less likely than men to adopt ICT's, but there is limited household data to support this evidence from a demand-side (Stork & Stork, 2008). For this reason, it was

important for the researcher to employ a mixed-method approach.

A quantitative research methodology was the primary method of collecting data to draw reliable conclusions about household ICT adoption trends in South Africa and was administered by way of a survey technique.

Focus Group Discussions (FGD's) also provided primary qualitative data to gain in-depth understanding of the role of the gender variable in ICT adoption and usage patterns. "The purpose of the FGD's was to determine some of the factors influencing ICT access and usage that cannot be determined by quantitative analysis," (Gilwald et al., 2010, p. 6).

It is equally important to note that the primary data used as a basis for this research report forms part of a larger Research ICT Africa ICT Access and Usage Survey conducted in seventeen (17) countries across Africa. The researcher participated in his individual capacity as part of the survey, design and implementation as well as the convener of the Focus Group Discussions (FGD's). The researcher was instrumental in the design and testing of the survey, the training of enumerators and the final pre-survey planning. The researcher was appointed as a field manager and managing a team of four (4) enumerators that conducted the survey in Gauteng, Limpopo, Cape Town, Northern Cape and Free State. This means that the research was instrumental in authenticating this data and coordinating the survey rollout in the mentioned provinces. Further, the researcher was also pivotal in convening all FGD's as well as moderating for the Male FGD's and the mixed gender FGD's. It suffices to say therefore that all primary data used for this research report was also influenced by the research to some degree.

3.3 SURVEY DESIGN

Part of the primary data for this research included was quantitative

survey data. Surveys are used to investigate social challenges by statistically drawing a sample from the population and using the results to analyse findings that can be generalised to reflect the state of the population being studied (Westmarland, 2001).

Tested and known research procedures are more likely to give validity to a research, the ICT Household Access and Usage Survey is no exception; hence the emphasis on tried and tested methodological strategies (Van Zyl, 2003).

The International Telecommunications Union (ITU) core ICT indicators underpin the indicators used in this research, this further advocate for the credibility of this survey research method. Adaptation to international best practice in research perpetuates consistency in studying complex phenomena such as gender.

According to Van Zyl (2003, p. 6), the following steps (if not all) are generic steps for conducting household surveys:

- **Pre-Survey activities/preparation: Formulation of research questions/proposals; Review of the literature/theories; Design of a draft questionnaire; Sample design; Equipment testing; Listing/demarcation; Pilot survey; Finalisation of questionnaire/translators; and Logistical arrangements.**
- **Conduct of the Survey Activities: Sample selection; Interview selection and training; Interviews; Checking of questionnaires; and Back-checking/quality control.**
- **Post survey Activities: Data processing and analysis; Coding/Numbering; Data entry; Computer editing; Weighting; and Tabulation and analysis.**
- **Report Writing**
- **Dissemination Activities:**

The RIA ICT Access and Usage Survey is administered every two years and is an essential tool to measure prevalence and distribution patterns

of access and usage of ICT's in African countries (Westmarland, 2001; Gilwald, Stork & Milek, 2010).

According to Stork et al., 2008, the 2004/5 RIA e-Access & Usage Survey methodology was designed by Aki Stavrou[13] and provided the basis for the 2007/8[14]Access and Usage Survey with a few modifications, (Stork et al., 2008). The data is a national representation and targets household individuals above 16 years of age.

The questionnaire is divided into three sections, namely

1. **The household rooster: information regarding all household members.**
2. **Household related information: Either the head of the household or someone that manages the household answered part one and two.**
3. **The individual section: answered by a randomly selected individual who is above the age of 16 years. In addition, the individual must have slept in the house the night of the interview. This also includes visitors and guests were regarded as part of the household based on whether they stayed and ate there for more than six months (Stork et al., 2008).**

Table C. Household Survey Sample Size: South Africa

	Major Urban	Other	Rural	Total
	779	465	527	1,771

Source: Stork et al., 2008

Table D. Other Survey Characteristics

	Survey Characteristics

13 An international development consultant of 25 years experience with a particular specialisation in research and evaluation design, implementation and analysis working at the Nordic Irish Development, aki@nid.ie.

14 See Appendix A for the full survey questionnaire.

Target Population	**All households excluding institutional households such as army barracks, prison and hospitals**
Domains	**1= national level**
Tabulation groups	**Major Urban, Other Urban, Rural**
Oversampling	**Major Urban 40%** **Other Urban 30%** **Rural 30%**
Clustering	**Enumerator Areas (EA) from national Census**
None Response	**Random substitution**
Sample Frame	**Census sample from NSO**
Confidence Level	**95%**
Design Factor	**2**
Absolute precision (Margin of relative error)	**5%**
P	**0,5, for maximum sample size**
Minimum Sample Size	**768**
Source: Stork et al., 2001	

Printed digital satellite image maps of Enumerator Areas were sold to the LINK Centre at a cost of US$1, 000 (Stork et al., 2008). Although the quality of the maps and accuracy was at times questionable, most Enumerator Areas maps were of reasonable quality and allowed the researchers to survey without disruption.

3.3.1 Team Composition

The survey in South Africa consisted of three teams of 5 researchers

covering all nine provinces. Each team consisted of four enumerators to administer the questionnaire and one field manager. A project leader was responsible for the country survey. And his role was to plan and execute the survey while the responsibilities for the field manager were to coordinate logistics at implementation level. According to Stork et al., (2008) the responsibilities for the field managers included to drive enumerators to the Enumerator Areas (EA's); to conduct the mapping and listing; conducting the random sampling within the EA's; to assign enumerators to randomly selected households; ensure quality control of completed responses; Back-up data, charging equipment; and to handle per Diem payments, petrol and accommodation expenses.

Team members were provided with University of the Witwatersrand branded t-shirts and caps and identification cards to enable easy identification of researchers in the field. This also afforded the researchers credibility and formality. Further teams had to comprise of members that could speak indigenous languages as part of an effort to ensure authenticity of data and allow subjects to feel comfortable knowing the researcher is of their kind (Kelle, 2001; Van Zyl, 2003).

3.3.2 Project Debriefing and Orientation

Two preliminary workshops were conducted over 5 days for the field managers and for the entire survey team including enumerators and attended by stakeholders such as the funders IDRC. Household manuals were provided by the LINK centre to survey enumerators and managers detailing the survey and technical processes. The purpose for the workshops was to orient survey teams and to test the survey and questions in a real-life situation. The workshops also served to finalise questionnaires and resolve any lingering questions the teams may have. The survey manual was used as a reference tool during the workshops and during the entire duration of the survey.

Prior to Interviews, people within the EA's were sometimes notified ahead of time in order to ensure that there is someone present at the household to attend to the enumerators on the day of the research. Sometimes letters would be left in the post box in order to notify households who were not present on the day of the listing.

3.3.3 Digital Tools

3.3.3.1 Hardware

Digital capturing devices installed with Geographic Positioning Systems (GPS) were used to administer face-to-face interviews.

Several hand-held devices and software solutions were tested such as the Asus Mypal A636N and A639N and a HP iPAQ rx5710 Travel Companion prior to the commencement of the survey. Eventually the HP and the ASUS PDA were chosen for the survey despite that the ASUS had a 50% failure rate that was mostly software related (Stork et al., 2008).

An HP Laptop was provided for each team to back-up data. Each team was also provided with two 1gigabyte Micro-SD cards for multiple backup purposes in order to circumvent data corruption common with database systems.

3.3.3.2 Software

The software solution called *Epihandy* was used to administer surveys. It uses Microsoft SQL CE server for database handling. Epihandy programmers in Norway and Kampala provided the technical support.

The laptops were running Windows '97 while the Open Source Software; SPSS statistics package was used for analysis.

3.3.4 Questionnaire Capture

Pocket PC (PDA), particularly the HP PDA were strictly used as the tool of choice to capture the survey.

3.3.5 Quality Control, Data Storage and Backup

The Field Managers were expected to review questionnaires on a daily basis as means to ensure validity, reliability and authenticity of interviews as per the survey requirements (Van Zyl, 2003). Data was then synchronised on a daily basis using a laptop which in turn was backed-up daily. As mentioned above, multiple back-up systems are necessary in order to protect data in case of theft or corrupt database. It is also important to note that all the digital tools were equipped with password protection.

3.3.6 Sampling

According to Stork et al., (2008) four steps underpinned the random sampling. Using probability proportional to size (pps), Enumerator Areas (EA's) were sampled for each stratum. Simple random sampling was used to select households within EA's and to randomly select one individual from each household.

3.3.6.1 Step 1: Major Urban/ Other Urban/ Rural Enumerator Areas

The national Statistics South Africa provided the sampling frames of the latest census for free of charge. The after, the master sample frame was split into three groups: *major urban, other urban and rural (*Stork et al., 2008).

According to Stork et al., *Major Urban* in South Africa is defined as the capital and any other metropolitan area where ICT infrastructure access is often in abundance in contrast to its prevalence in rural areas (Stork et al., 2008). Further, costs associated with surveys and the need to contain sample size necessitated the oversampling of the stratification. Therefore, 40% of the households targeted were from major urban areas. Other urban made up another 30% while rural areas made up another 30% (Stork et al., 2008).

As a result, the sample is biased with 70% heavily toward urban areas.

However it is the nature of telecommunications access in South Africa that it is concentrated in urban areas as discussed in the preceding *Literature Review*. It necessitated such stratification in order to ascertain that it is probable ICT users that are more likely to become respondents of the survey (Stork et al., 2008).

South African households were stratified into three metropolitan economic areas: Major Urban, Other Urban, and Rural as per the General Household Survey (GHS) that is administered by the national statistics agency of South Africa, StatsSA. Household definition for the survey part of this research was limited to both formal and informal housing types and excluded institutional households that include but not limited to prisons, army barracks, hospitals, orphanages, student hostels and academic residence.

Table E. Classification of Household Type by Province

Household Type	MAJOR URBAN	OTHER URBAN	RURAL
Characteristics	Consists of high-income households that have access to basic services such as health facilities, sanitation, water, schools, libraries, banks shopping centres etc	Consists of middle and low-income households and can be identified in both rural poor and urban poor households. They also have some access to health facilities, sanitation, water, schools,	Consists of low-income households and can be identified in predominantly rural poor and other urban poor households. They may not have or have limited access to health facilities, sanitation, water, schools,

		libraries, banks shopping centres etc	**libraries, banks shopping centres etc**
Provinces	**KZN, WC, EC, GT**	**EC, WC, KZN**	**FS, Limpopo, NC & NW**
Source: Stork et al., 2008			

3.3.6.1.1 Household Attributes

For this reason, during the research survey for ICT Household Access and Usage 2007, households' physical attributes had to be observed in order to enable better classification of household types. Households were classified to be in either low-income or high-income household categories depending on physical attributes and geographic location, urban peri-urban or rural environments as per the stratification administered by StatsSA during the 2001 population census.

Characteristics of households were categories and presented as permanent formal; permanent informal; traditional structural material; and temporary structural material.

Categories of households were further described as constituting the either of following roof and exterior walls structural components: Iron sheet rooftop, with tile roof top, with thatched roof, shack house, plastic sheets, branches or twigs, grass, stone or slate, iron sheet exterior walls, timber exterior walls, mud exterior walls, sand crete exterior blocks, brick tiles, and concrete.

The flooring and walls were left to the observation and perception of the researchers in relation to the condition of the household but were also recorded (Stork et al., 2008).

In general, formal houses were regarded as those with brick structure, dwellings on separate stands, a flat, apartments or cluster homes, semi-

detached houses, flats/units in retirement villages' flats or flat-lets, farm properties, workers' hostels.

For the purposes of this research, informal houses were classified as those in informal settlements or back yard of formal houses made of iron-sheet material and iron sheet/shack structures or dwellings in informal settlements (Hall, 2010). A StatsSA 2007 General Household Survey (GHS) research report classified that 69.8% of households in South Africa lived in formal separate households, 59% lived in informal households and 91.4% lived in traditional households (StatsSA, 2007a).

According to Dr Stork, the project leader of the RIA ICT Household Survey, (2008) a household is defined as a house that 'constitutes a person or group of persons, irrespective of whether related or not, who normally live together in the same housing unit or group of housing units and have common cooking arrangements,' (Stork, et al, 2008). Household headship shall be limited to mean a person, female and or male that is a breadwinner for a household. It is equally important to note that within the male-dominated stereotypes and context; headship can also be interpreted as referring to only male figures with authority due to their sex. The definition therefore was subject to limited interpretation by the respondents who participated in the survey that the forms the basis of data for this paper.

In terms of a broad scope, it is a person who economically supports or manages the household or for reasons of age or respect, is considered as head by members of the household, or declares himself as head of household (Stork, et al, 2008). According to Rogers, "the process of household decision making is complex and not well understood" (Rogers, 1995), therefore the approach undertook in this research may not necessarily encompass the definition in totality. In our survey, FHHH was not exhaustively defined and is limited to discretion of the respondents' interpretation of the household head. Rogers further

explains that: *“*

> Where no adult males are present in the household, women by definition are in control of all decisions, unless a male living outside exercises control.
>
> The term head of household is used to cover a number of different concepts referring to the chief economic provider, the chief decision maker, the person designated by other members as the head, etc. The focus changes depending on the specific circumstances of the country . . . (Rogers, 1995, p. 1)

Generally, the definition of head of household reflects the stereotype of the man in the household as the person in authority and the breadwinner (Rogers, 1995).

And even where the definition is adequate, criteria used by interviewers are often vague and leave room for subjective interpretation (StatsSA, 2007a).

This highlights the complexities of defining headship, notwithstanding household compositions in terms of economic status, source of income and cultural connotations, which must all be considered. In this regard, this research report may not be accurate in ascertaining headship of households in South Africa. Alternative definitions of the different types of household headship can assist us to better interpret the differences between FHHH, joint and MHHH. Therefore three broad areas were used to define household headship in this research namely, property ownership, income provider and decision-making.

There were three major scopes in the Household ICT Access and Usage Survey that defined members of a ‘household’ namely:

1. **Persons who lived and ate with the household for at least six months including those who were not within the household at the time of the survey and were expected to be absent from the**

household for less than six months.

2. All guests and visitors who ate and stayed with the household for six months and more.
3. Housemaids, guards, baby-sitters, farm workers who lived and ate with the household even for less than six months (Stork, et al, 2008)

The above-mentioned definitions were important in order to minimize the distortion of data while parameters were predefined for this purpose, i.e. the questionnaire was designed to source information in relation to the head of household or a person tasked with managing the household.

3.3.6.2 Step 2: PPS Sampling of Enumerator Areas

Probability Proportional to Size (PPS) was used to sample EA's separately, for major urban, other urban and rural areas. This means that the more the households in an EA, the higher the proportional probability of being selected. The lower the number of households meant the lesser the proportional probability for an EA to be selected,[15] (Stork et al., 2008).

3.3.6.3 Number of Enumerator Areas (EA's)

Table F. Enumerator Areas

	Census plus extrapolation to 2007				Sample		
South Africa	Total	Rural	Major Urban	Other Urban	Rural	Major Urban	Other Urban
	56,255	26,802	13,014	16,439	24	36	21

[15] See Thompson (2002) page 133 for details how to apply pps sampling as quoted by Stork et al., 2008.

Source: Stork et al., 2001

3.3.6.4 Step 3: Household Simple Random Sampling

Upon arrival at EA, a primary activity was listing and involved counting of the number of households as per the boundaries reflected on the EA map. The number of households divided by the target sample determines the sampling interval (Stork et al., 2008).

In order to determine the starting point, the date of the visit to the EA was added, i.e. 29/01/2011 equal 29+01+11=38 (Stork et al, 2001). Therefore household number 38 would be the starting point for the survey interview.

Further, household definition was limited and excluded student dwellings, hospitals, prisons, and embassies (Stork et al., 2008). Household attributes including GPS recording were important to collect prior to commencement of interviews. For more information on household attributes refer to **ANNEXURE B.**

A method of random substitution was employed for cases where there was no response as a result of false identification of household as per the map, unwillingness to participate in the survey by respondents and or unavailability of household persons during the survey. It is important to note that unavailability was confirmed systematically by ensuring the enumerators return to the listed household twice before it can be randomly replaced.

3.3.6.5 Step 4: Household Members Simple Random Sampling

While considering all household members and visitors that were present on the day the household was visited, only persons over the age of 16 years were eligible to participate in the person-to-person survey interviews. The PDA software, Epihandy used a random number generator to randomly select a household member eligible for the interview (Stork et al., 2008).

3.3.7 Data Analysis

Statistical Packages for Social Sciences (SPSS) and Stata are the software packages that were used analyse the quantitative data collected from the survey study.

Definitions:

Gender: dichotomous variable, 0 = male, 1 = female

ICT's: Fixed, fixed-wireless, mobile, Internet

Access: adoption, dichotomous variable, 0 = does not have, 1 = have

Usage: expenditure for ICT's

Table G. Research framework

	Dependent variable	Independent variable	Methodology
Adoption	Dichotomous variable: has household fixed line phone or not (0,1)	Household headed by a woman (0,1) Household income Household Size Location of Household (rural, urban) Age of Household Head Highest education of any household member	Logit or Probit model
	Share of household members above 16 with a mobile phone	Household headed by a woman (0,1) Household income Household Size Location of Household (rural, urban) Age of Household Head Highest education of any household member	Ologit or Oprobit model
Usage	Monthly fixed line expenditure	Household headed by a woman (0,1) Household income Household Size Location of Household (rural, urban) Age of Household Head Highest education of any household member	Ordinary Least Square Regression
	Monthly mobile expenditure	Household headed by a woman (0,1) Individual disposable income	Ordinary Least Square Regression

		Household Size Location of Household (rural, urban) Age of individual Education of individual	

3.4 FOCUS GROUP DISCUSSIONS

In order to provide better understanding of gender differences, the focus group discussions were critical. The same sampled enumerator areas used for the quantitative research were chosen in order to conduct 5 group discussions. An important consideration for the researchers in conducting the FGD's was the need to build trust and comfort for the FGD participants as means to allow participants to divulge significant information they would have otherwise not have divulged in the quantitative survey because of its inherent prescriptive nature (Westmarland, 2001). This meant that female FGD's had to be facilitated by females; it applies to male FGD's as well. Mixed Sexes FGD's were co-facilitated by both female and male facilitators.

"The striving for objectivity may result in the downplaying of validity if participants feel uncomfortable with the researcher" (Westmarland, 2001, p.4).

The following framework for gender analysis provides an outline to inform FGD's:

Table H. Focus Group Discussions Framework		
ACCESS	**Ownership**	**For those who don't own a phone—why don't they?** **For those who do, why?** **How do they acquire it?**

		Gift, second purchase, a family member buys a new one and gives old one? **Do any people have a phone or access to a phone under particular conditions? E.g. Only to be used I emergencies, for security, may only make calls to particular numbers. What are the penalties for breaching these conditions?** **How did you get your current (latest) mobile phone? Was it new mobile or a second-hand one?** **Are there expectations around providing your partner with a mobile or being provided by your partner with one?**
PURPOSE	**Primary purpose of calls**	**Think about your last 10 calls. Who were they to? And whom were they coming from? What was their purpose?**

	Other purpose	**Apart to communicate with you phone what else do you do with it?**
	Banking or e-mail	**Were you aware that you could use your phone for this purpose? Would you like to?** **What might limit your use of your phone for these purposes?**
USAGE	**Missed Calls**	**Who do you miss-call or send please-call-me? Why?** **Who miss-calls you or send please-call-me? Why?**
	Expenditure	**What limitations are there on your phone usage? Self-imposed budget? Part of grocery budget received for household from spouse? Who pays for your phone usage other than yourself? What conditions if any exist?**
ABILITY/CONTROL	**Literacy**	**Are you able to use phone by yourself? Or you need somebody to**

		help you? If yes why?

3.4.1 FGD Target Location

The composition of FGD's consisted of two rural FGD's, two other urban FGD's and one urban (high-end users) FGD.

3.4.2 FGD Target Groups

There were a total of five FGD's, two male-only FGD's and two female-only FGD's all consisting of mixed users and non-users. One mixed group FGD was conducted strictly for high-end users in Johannesburg. All FGD's consisted of participants between the ages 18 to 51+.

3.4.3 Compensation

Depending on the location of the FGD, participants were compensated with monetary gain to between the amounts of R50 and R150 per participant. Furthermore, the facilitators provided refreshment drinks and snacks during the FGD's.

3.4.4 Generic Processes to Host FGD's

An important activity upon identifying the target EA is to establish a contact and attempt to pre-arrange and suggest to the contact to become a champion for organising participants. Thereafter you mutually agree on a suitable FGD date. Identification of a venue to host FGD will be the role of the contact in the EA and he or she must secure venue for preferred date to host FGD and inform the research accordingly. On FGD day, the venue must be prepared and ready to host a FGD.

Upon completion of FGD, it was courteous to compensate participants and the organiser. Transcription of audio data to text is a critical step to carry out immediately after the FGD. Finally when review of audio is completed, it is important to submit to project leader for authentication.

CHAPTER 4: RESEARCH RESULTS FOR GENDER-BASED ANALYSIS

4.1 QUANTITATIVE DATA: ICT ACCESS AND USAGE SURVEY

The results for quantitative data are divided into two sections. The first data presented, as Table I and Table J below, constitute the sample statistics of Enumerator Areas and sampled households consisting of both males and females headed households. Table J also provides the percentage of the total Interviewed households in relation to the stratification of areas as provided by StatsSA. The second part of data presented consists of the actual results after processing using the SPSS software as alluded to in the Methodology section.

It must be noted that the data mentioned excludes the disqualified and of incomplete questionnaires, which could not be regarded as valid in line with the survey research objectives. These incomplete questionnaires vary and include but not limited to corrupted databases; lack ofinformation on household head; lack of information in household rooster; Lack of information in relation to the specification of location of household; lack of information regarding questionnaire enumerator area cluster number; lack of adequate information relating to household members; lack of information on household attributes; lack of information for randomly-selected individual; lack of information regarding enumerator area attributes; lack of Geographic Positioning System (GPS) Data; and lack of sampling methodology.

Table I. Survey Number of Enumerator Areas (EA's)
(as per stratification)

Major Urban	Other Urban	Rural Areas	Total
36	26	31	**93**

Source: Stork et al., 2008

Table J. Sample of Household Survey

Major Urban		Other Urban		Rural Areas		Total
Total	%	Total	%	Total	%	
779	44%	465	26%	527	30%	1771

Source: Stork et al., 2008

A majority 59% of the total 1771 sample who participated in the survey were women. The table above (Table J) also reveals the imbalance of the sample where the majority of participants were based in Major Urban Areas at 44%. These major urban areas constituted of: Johannesburg, Pretoria, Cape Town, Durban and Port Elizabeth. The interpretation of the results will therefore need to be cautiously interpreted. However it was necessary to stratify the data in this manner in order to ensure a high response of person who uses these modern ICT's, but also to heed to budgetary constraints (Stork et al, 2008).

The sampled statistics were based on random samples using probability proportional to Size (pps) as indicated in the methodology section, which allowed for higher probability of selection of EA's with dense population of households in contrast to less probability of selection for EA's with less households (Stork et al, 2008).

4.1.1 Results of Households Mann-Whitney U Mean Rank Comparison Test for gender-based analysis of household share of mobile

The hypothesis to be tested for the Mann-Whitney U mean rank comparison was: *There is no difference in the share of mobile phones between male and female-headed households.*

Table K. Two-sample Wilcoxon Rank-Sum (Mann-Whitney) Test for Share of Mobile Phones in Household

HHHfemale	Obs	Rank sum	Expected
0	1047	793173	761692.5
1	407	264612	296092.5
Combined	1454	1057785	1057785
Prob > |z| = 0.0000			

The difference between female and male-headed households is significant with the share of household members having a mobile phone being higher in male headed households.

Given that there is a significant difference between male and female-headed households, the results could be explored further using the *Linear Regression Model* as presented in 4.1.2 below**.**

4.1.2 Results for the Households Linear Regression Model: *Number of People with Mobile Phones*

The dependent variable is the number of people with mobile phone in the household divided by number of household members, i.e. share of household members with a mobile phone. The independent variable include: Household income (HHincome), household being headed by a woman (HHHwomen), whether the household is in other urban area i.e. not Johannesburg, Pretoria, Port Elizabeth or Cape Town (OU), Household in rural areas (R).

Table L.	Ordinary Least Square Robust Regression Results					
	Linear regression			Number of obs =		1372
				F (4, 1367) =		92.95
				Prob > F =		0
				R-squared =		0.2018
				Root MSE =		0.3205
	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval
HHincome	0.00000486	6.01e-07	8.09	.0000	3.69e-06	6.04e-06
HHHfemale	-.0331574	.0218307	-1.52	.129	-.0759828	.009668
OU	-.0622239	.0221424	-2.81	.005	-.1056607	-.0187872
Rural	-.2769532	.0227517	-12.17	.0000	-.3215852	-.2323211
_Cons	.6179157	.0175986	35.11	.0000	.5833925	.6524389

Prob > F = 0.0000 means that the model as a whole is significant. If R-squared = 0.2018, it means that the model explains 20% of the variation in the number of mobile phones per household. And P>|t|< 0.05 means that the variable is significant at 95% confidence level.

The variable household income is significant and has a positive coefficient meaning household income significantly increases the probability of mobile phone ownership in a household. Female-headed household is insignificant, meaning that gender does not influence ownership of mobile phones in a household.

Households located in other urban and rural settings are significant but with negative coefficients of (-.062) and (-.276) respectively; meaning the chances for mobile phone ownership by households in these areas is decreased significantly compared to major urban areas like Johannesburg, Pretoria, Durban, Port Elizabeth and Cape Town.

The finding that a female-headed household is insignificant as demonstrated by the OLS regression model (Table L) was a surprise given that the Mann Whitney U test (Table K) claimed that there was a significant difference in mobile phone ownership between FHHH and MHHH. Therefore another test was done using the Mann Whitney U mean rank comparison to investigate the positive coefficient reflected

by the household income variable in the OLS regression model above (Table L).

4.1.3 Results of Households Mann-Whitney U Mean Rank Comparison

The next test conducted was to test for gender differences in household income using the Mann-Whitney U Mean Rank Comparison.

Table M. Two-sample Wilcoxon rank-sum (Mann-Whitney) Test for Household Income

HHHfemale	Obs	Rank sum	Expected
0	1001	742041.5	687186.5
1	371	199836.5	254691.5
Combined	**1372**	**941878**	**941878**
Unadjusted variance			42491032
Adjustment for ties			-8485.7041
Adjusted variance			42482546
Ho: HHincome (HHHwomen==0) = HHincome (HHHwomen)			
z= 8.416			
Prob > |z| = 0.0000			

Key:

HHHwomen = Household headed by woman where '0' = male and '1' = female

Obs = Observations where '1' = Female share of mobile and '0' = Male share of mobile.

The hypothesis that there is no difference in household income between FHHH and MHHH can be rejected on the basis of the probability Prob > |z| = 0.0000.

This confirms that household income explains the variation and that female-headed households have significant less household income than male headed households.

The cause for the imbalance cannot be explained with the current data

set. A possible explanation could be that male-headed households have more income earners and that female-headed households are predominately households with only one breadwinner.

The average household size of male headed households was 3.32 while for female headed households it was 3.14

	Male Headed Households	Female Headed Households
Average number of household members	3.32	3.14
Average Household Income	9860 ZAR	4484 ZAR

4.1.4 Results for Individuals Percentage: *Source for Getting a Mobile Phone*

Table N. How Individuals Received Their Last Phones						
How did you get your current (latest) mobile phone?						
	I got a new mobile when I signed a contract	I bought a new phone	I bought a second-hand phone	I got a new phone from family or friends	I got a second-hand phone from family or friends	Phone from family or friends in total
Female:	8.1%	32.5%	10.4%	38.5%	10.5%	49.0%
Male:	14.5%	47.8%	14.1%	17.4%	6.2%	23.6%
Source: Stork, 2010						

The results above show that more females than males received phones from family or friends. It is interesting to note that 32.5% of Females as compared to 47.8% of males had bought new mobile phones. Further, national results indicate that 38% of females in South Africa received new phones from family or friends compared to 17.4% of males. A total

49% of females received a phone from family or friends compared to 23.6% of males. Table 0 represent to investigate how different genders spend averagely on mobile expenditure.

4.1.5 Results for Mobile Expenditure

Table O. Monthly Average Mobile Expenditure in US$			
Male	Female	Major urban	Rural
18.16	14.48	23.60	9.91
Source: Stork, 2010			

It is also clear from the results above that females spend less monthly on mobile phones than males. Further, people located in rural areas spent significantly less on mobile phones than those in urban areas during the same period.

4.1.6 Results for Affordability of Making Calls

Next was a question regarding major inhibitors to making more calls and surprisingly the cost to communicate was high at 65.1% of all respondents claiming cost as the biggest prevention from making more calls, see Table P below

Table P. What prevents you from making more calls		
Cost of calls	Nothing - currently on optimum use	Coverage
65.1%	31.5%	6.5%
Source: Stork, 2010		

4.1.7 Results for Individual Probit Regression: *Mobile Phone Ownership*

Table N below is a descriptive configuration of the Probit Regression Model and defines the dependent and independent variables in relation to the

expected results.

Table Q. Probit Model Specification			
Variable	**Variable Name**	**Expected result**	**Comment**
Dependent Variable	Mobile Telephone	N/A	
Independent Variables	Household Income (HHincome)	Significant	Income is considered to be one of the barriers
	Female	Not Significant	The tested hypothesis is that there is no gender difference for mobile adoption
	Age	Significant	The assumption is that age is also a barrier
	Tertiary	Significant	The assumption is that having passed tertiary increases the probability to own mobile
	Secondary	Significant	The assumption is that not having enrolled or at least secondary school decreases chances of ownership
	Individual Income (income)		
	Rural	Significant	If household is located in rural area, it is assumed that it is less likely to have a fixed line.
Source: Chabossou, 2008			

Table R. Probit Regression Results: Ownership of Mobile Phone		
Probit regression	Number of obs =	1372
	Wald chi2 (7) =	140.65

				Prob > chi2 =		0
Log pseudolikelihood = -14040020				Pseudo R2 =		0.1817
	Coef.	**Robust Std. Err.**	**z**	**P>|z|**	**[95% Conf.**	**Interval]**
Hhincome	.0000167	6.26E-06	2.67	.008	4.43E-06	.000029
Female	.3723193	.0973932	3.82	0	.1814322	.5632065
Age	-.0117356	.0028808	-4.07	0	-.0173818	-.0060895
Tertiary	1.144626	.2971335	3.85	0	.5622547	1.726996
Secondary	.7645456	.2454298	3.12	.002	.283512	1.245579
Iincome	.0001634	0.000038	4.31	0	.000089	.0002378
Rural	-.2868784	.0972751	-2.95	.003	-.477534	-.0962228
_Cons	-.4508714	.3040887	-1.48	.138	-1.046874	.1451316
Note: 0 failures and 25 successes completely determined.						

The results reveal that being a female is significant and positive, meaning there is a significantly increased probability for a female to own a mobile phone in South Africa. However living in rural areas is significant but negative, and so is age. This means living in rural areas significantly decreases the probability of owning a mobile phone. Similarly, being older also means there is an increased probability to not own a mobile phone.

In contrast, Household income and individual income are positive and significant. Having completed tertiary or secondary education is also positive and significant. Therefore education, household income and individual income significantly increase the probability to own mobile phones.

4.1.8 Results for the Households Probit Regression Model: *Working Fixed Line Telephone*

Table P below is a descriptive configuration of the Probit Regression Model and prescribes the dependent and independent variables and the expected results.

Table S. Probit Model Specification			
Variable	**Variable Name**	**Expected result**	**Comment**
Dependent Variable	Fixed Line Telephone	N/A	At the time of the research, Telkom was the only

			provider for fixed line telephones in South Africa
Independent Variables	Household Income (HHincome)	Significant	Income is considered to be one of the barriers
	Household Size (HHsize)	Not Significant	Size should not be a determining factor for household fixed line and is not relevant to this research report.
	Household Head Women (HHHwomen)	Not Significant	The assumption is that HHHwomen has no role determining fixed line telephony
	Rural	Significant	If household is located in rural area, it is assumed that it is less likely to have a fixed line.
Source: Chabossou, 2008			

Table T. Probit Regression Results: Ownership of Fixed Line

Probit regression			Number of obs =	1372		
			Wald chi2(4) =	177.86		
			Prob > chi2 =	0		
Log pseudolikelihood = -3447250.3			Pseudo R2 =	0.2780		
	Coef.	**Robust Std. Err.**	**z**	**P>|z|**	**[95% Conf. Interval]**	
HHincome	4.79E-05	5.94E-06	8.07	0.000	0.0000363	0.0000595
HHsize	0.063679	0.0272459	2.34	0.019	0.0102781	0.11708
HHHwomen	0.0058211	0.1027629	0.06	0.955	0.0102781	0.1170800
Rural	-1.162774	0.1458929	-7.9700	0.000	-1.4487190	-0.8768293
_cons	-1.215803	0.1161295	-10.4700	0.000	-1.443413	-0.9881935

Note: 0 failures and 3 successes completely determined.

The hypothesis that there is no significant difference between FHHH and MHHH in access can be rejected on the basis that HHHwomen as an independent variable was not significant more so than household income and location of household. This means that a household headed by a woman has no significance in ownership of fixed line telephone. However living in a rural

area was significant and negative with a coefficient (Coef.) of (-1.162) while household income was also significant but positive (coefficient of 0.000). This means that living in rural areas significantly decreases the probability to own a fixed line telephone but having income increases the chances for ownership of a fixed line telephone

4.2 QUALITATIVE DATA: FOCUS GROUP DISCUSSION

The second set of data is in relation to the Focus Group Discussions conducted in three provinces representing urban, peri-urban and rural communities. These FGD's targeted both males and females in the provinces in order to measure variation of access and usage of mobile phones as the main ICT medium. Three types of FGD's were conducted:

- Male only FGD's
- Female only FGD's
- Unisex FGD's

Each FGD consisted of an average of 15 participants per FGD depending on the respondents that confirm attendance. The aim of the focus group discussions was to determine the access, purpose usage and ability and control of mobile phones to assist researchers to better understand the impact of ICT's at an individual level. The rationale for the Focus Group Discussions was therefore important in order to contextualise the argument in relation to gender, access and usage of ICT's and to complement or detest the quantitative study findings, which otherwise provided limited approach in this regard. Getting deeper understanding as to whether adoption and usage is influenced by gender necessitated the FGD's. It was therefore important to investigate (*by using FGD's*) further:

- Access and usage differences for target populations in relation to urban, rural and or other-urban environments

- Type of ICT access that is commonly used as per the area
- Ownership patterns of mobile phones
- Ownership of private fixed phones
- Availability and proximity of public phones to households
- Purpose of ownership of the targeted ICT's
- The primary purpose for making calls or mobile phone banking and or e-mails and Internet etc.

The use of mobile phones was therefore systematically categorised into the following:

- Missed calls and SMS
- Use of office phones
- Social networks such as Mxit (as a social media tool allowing for women to communicate with each other on common issues on a common platform)
- Expenditure and payment by women of mobile phone airtime
- Literacy in relation to maximising the use of technology

The following sets of questions were used as the Terms of Reference (ToR) and were critical in answering the broader premise of issues as described above:

- Reason why participants do not own mobile phones, and why they own them. In answering this question, the following set of sub-questions were important:
- Do participants use the phones for particular reasons such as emergencies, security or use phones that are restricted?
- Are participants penalized for using 'restricted' phones to call other numbers that are not specified? How are they penalized?
- What is the purpose of owning a phone?
- Who do participants call often and why?

- What else would a woman use a phone other than making calls? And
- Are participants aware of electronic banking?

The other important part of the focus group discussion interviews was to investigate the usage of the phone with regard to “Missed Calls”.

- Do participants use the phone to send “Missed Calls” and “Please call me” messages and why?
- Who pays for phone usage?
- Do participants sacrifice other important expenses in place for airtime?
- Equally important for this research was to investigate whether women are optimising the use of these devices.
- Are participants mobile phone-literate?
- Do they have the ability to use other features on the phone participants ask for assistance and or permission to use their phones?

The original transcripts of the interviews carried out in 2007 and 2008 across the 3 provinces as mentioned above are attached as **ANNEXURE B**.

4.2.1 Focus Group Results: Urban High End Users

VENUE FOR FOCUS GROUP INTERVIEW: WITS LINK CENTRE – JOHANNESBURG

DATE: APRIL 2008:

TARGET POPULATION: MALE & FEMALE PARTICIPANTS

4.2.1.1 SUMMARY

The venue was considered suitable for easy access and participants ranged from the ages 34 to 60. All the participants were from the Gauteng Province.

All participants were employed and some were also part-time students. The group consisted of a good balance between high-end users and average

users of technology. The level of education for all participants was at the least tertiary level.

Key:

F: Facilitator

P: Participant

4.2.1.2 PURPOSE

4.2.1.2.1 Primary Purpose for Making Calls:

Almost all the participants used their phones for social and business purposes and mentioned that most calls received were calls from friends, family and from colleagues.

Another interesting finding from this Focus Group is the mention of *calling opportunities* and not pre-empted by the facilitator. Participants mentioned that they manipulated different networks in order to circumvent the high costs associated with making calls in South Africa. Some participants mentioned how it was cheaper to call on the same network than calling on a different network. Furthermore, participants highlighted that in cases where their contract phones were soft-locked[16] by service providers, they would then switch to their pre-paid SIM cards or phones:

> "**P**: yeah, actually I have three units and three Sims, now the one is personal and the one is business my Vodacom is business and MTN is personal. Sometimes I receive personal calls on Vodacom, the issue of getting cheaper when phoning Vodacom to Vodacom. So whoever is calling me is on Vodacom. So the other SIM cards is on the pay as you go you know some of us who really love our phones so it sets a limit on your

[16] '*Soft-Lock'* is a term used to describe the suspension of Cellphone services by the service providers as per the user's request. i.e. one can choose to set a call limit of R100 per month and therefore the service provider will activate an automated lock to the cell phone number when it reaches the R100 mark.

budget so as soon as they cut you off, you go on a prepaid. My personal phones both of them are on MTN the one is on contract so when they soft-lock my phone I then go on pay as you go but then one would have my original number which is that one of the contract and is purely for making calls."

Access to phones at work and subsidized mobile phones were also highlighted as reasons why missed calls were being used. Needless to say that most participants had contract phones either partially subsidised by their employers or by themselves.

Participants were generally using mobile phones as a tool for security either for themselves or their families and also to be contactable at all times. Most of the group attested to having an extra mobile phone for kids' convenience and logistical purposes as well as for emergencies. In conclusion the reasons for owning mobile phones in the group were broad and included social, business and security.

A point of note was the concern by participants for their children using social sites like Mxit. This illustrated a sense of control of usage on the part of the parents who wanted at all times to keep track of their children's mobile usage.

4.2.1.2.2 Missed Calls, SMS and Call Back

Even amongst all the high-end users, there was an indication that *Missed Calls* were an efficient communication tool for various reasons. Such a communication tool was well understood by participants as only relevant as per prior arrangement between them and another person. In some instances the *Missed Call* was used even though no response was expected but others used it to get a person who they knew was at a better position to return their call. The following is what the participants had to say:

". . . It's an agreement between me and whoever that person and I would say just send me a miss call . . ."

"I send missed calls to my sister, like now I know she's at work and I can

give her a missed call."

All participants agreed that the cost factor was what prompted them at times to use SMS as a cheaper alternative to communicate. A participant mentioned however that in a business environment, sms'ing is convenient, because it is private.

". . . The main reason I am using SMS for is when I am with the customer the phone rings and I can't answer the phone at that time . . ."

4.2.1.3 ACCESS

4.2.1.3.1 Ownership of Mobile Phones and or SIM card:

Participants owned one or more mobile phones. About 60% had more than one SIM card. This indicates the high-level of dependency on mobile phone technology as part for daily activities.

Most of the high-end users emphasised the necessity to separate private from business calls. The mobile phones and SIM cards were interchangeably used for business, private and data usage, as one of the participants indicated:

"Actually I have three units and three Sims, now the one is for private calls and the other is for business, my Vodacom is for business and MTN is for private."

" . . . **F**: How many of you have more than 1 SIM card? Are those SIM cards in a separate phone or do you use SIM cards to change in your new related phone? **P**: separately… **F**: All separate. Separate phones, separate SIM cards? **P**: umh - sometimes I guess one can use them interchangeable. **F**: but you are not using it lots like other parts of the country where people talk to different networks, data collections, data networks, get lower packages, be online, on net. But yours, you use the two separate. **P**: well just one cause I have got a separate SIM card that I use for data but it's actually got a number so I actually use two Sims… **F**: interrupted: but that's a data card but has a data number? **P**: Yes so I

have to use two numbers but I only use it for data card that I am using for data . . . **P**: well, I have two voice cards, one for MTN and one for Vodacom for voice. For data my MTN can covers data and voice in my mobile. And in case I have a phone on my MTN network I can use my Vodacom SIM on data device to run data . . . Yes I use them separately like that, the other for MTN and the other for Vodacom in fact basically because of the problem Vodacom has in terms of networking. At times you don't get proper network"

Another reason stated by one of the high-end users was that obtaining a second phone was as a result of Telkom abruptly cutting her fixed line service at home. Only one participant had one phone, which he had received from a family member who had just got a phone contract upgrade and handed down the old phone since he had just lost his through theft. There was a fair acknowledgment of the need to be always available no matter what the circumstances, for both social and business purposes.

Interestingly, most of this group indicated that they had bought phones for other people/members of their families. There was a mixed response when asked if they pay the phone bills for the people they have bought phones for. A common thread however, was that they all expected the family whom they bought phones for, to be available when they called them (maybe because they *(high-end users)* had bought the phones). They also mentioned the expectation for the receiver to pay for their own usage.

There was a fair principle of sharing mobile phones access with family members in households by all participants. Though some participants indicated that they had bought their children mobile phones they still had to give access of their mobile phones to them.

4.2.1.4 OWNERSHIP AND USAGE OF PRIVATE FIXED PHONES OR USE OF PUBLIC PHONES AND OTHER COMMUNICATION

TECHNOLOGIES

Of note is the difference in the reasons given as to why they have fixed phone access as opposed to not having:

> " . . . I went on to get my landline so in the evening we can spend hours on a phone and both landline and in the afternoon we talking on a mobile phone sms-ing because it is cheaper everyone is complaining about you know and off-course it is expensive . . ."
>
> " . . .I don't have and don't really want to and it's going take time to installed . . . it takes too long whereas the mobile phone, I buy it here and going to use it now . . ."
>
> " . . .When calling in the evening I will ask if you have a landline and if yes I will suggest I call on the landline . . .and if one is on pay-as-you-go, it works better that way for me . . . "

All participants indicated access to the Telkom fixed line and used it for both social and business activities. High-end users indicated that they have extended access to the Telkom line for their families.

It is important to note that most participants, despite acknowledging the benefits, they perceived Telkom to be a nuisance with their failure to respond timeously to requests and queries. They saw this as a deterrent to their future ownership of Telkom landlines.

In terms of public phones, the participants viewed the facilities as last-resort alternatives for making calls. A female participant who saw the public phones as a convenient method in case of emergencies revealed an interesting view:

> " . . .**P**: For me there was a time I really thought about what if you are mugged or robbed, kind of cautious about stuff so I would have a card all the time because I know that Telkom service public phones which are using cards are a lot serviced than your coins coz the coins get robbed more so the card one you know you've got a card my thinking is should anything happens and they take my bag or something I should have a card

with me so I will be able to make a call . . .”

4.2.1.4.1 Other Communication Technologies

There was a fair understanding of the different connectivity technologies such as dial-up; wireless, GPRS and 3G suggested a reasonably high level of ICT literacy. There was also some mention of using the VOIP to make voice calls (long-distance) as a cheaper option. However, one of the participants also questioned the quality issues normally associated with VOIP.

Most participants said they used the Telkom-based Internet access to surf the Internet as well as for online banking. Some participants reflected that their family members (older children and spouses) used Telkom-based Internet access but mostly from work and school. They all seemed to use their phones for mobile Internet to check e-mails.

4.2.1.4.2 Mobile Phone Banking

A limited number of participants agreed that they used the mobile phone as a banking facility, even though all participants conceded that cell-phone banking was cheaper than driving to the bank.

4.2.1.4.3 Number Portability

Only one participant had previously ported their numbers. After porting, participant was ready to give up his number after the former service provider failed to stop billing him. Although there was a strong indication that participants cared about their numbers all but one confessed they would not give the number portability a benefit of doubt. The general understanding was that the service providers made it hard for them to port their numbers. One participant said:

“These service providers also make it very difficult for you to leave, so the process itself takes time.”

4.2.2 Focus Group Report, Rural Low-End Users

VENUE: VREDE, NORTH WEST

DATE: DECEMBER 2007

TARGET POPULATION: MALES PARTICIPATS ONLY

4.2.2.1 SUMMARY

The focus group was held at a house of one of the participants. The place was also considered viable for easy access and to make participants feel at ease by being in a familiar environment.

This is a semi-rural area with a community of people that knows each other. Male participants were identified according to their ages. Participants ranged from the ages 19 to 67. All the participants were from Vrede although one or two were only around because of the holiday season despite being originally from the area.

Participants of the focus group included 3 or four who were unemployed or had part-time occupation. The rest of the participants were still at school or were on pension. The level of education was mostly high school and one tertiary level while two (54 and 67 years of age) had not attended school in the past.

4.2.3 PURPOSE

4.2.3.1.1 Primary Purpose for Making Calls:

All but one of the participants agreed to be making calls to family members, friends and girlfriends. The one participant an elder, indicated that he did not see the need to make calls indicated that he relied on the wife to keep contact on his behalf. He highlighted an important point relevant to migration patterns and urbanization; that his family who stays outside town ever comes back.

". . . I always insist on them coming here because it is their home. My son

stays in Jo'burg and his mother always calls him. I don't need a phone . . ."

Another youth participant used the phone to make extra cash by using it to sell cigarettes and sweets at a campus he attends school.

"I sell lose cigarettes at campus. So I get calls from some students wanting to find out where I am because they want to buy lose cigarettes."

The cost to communicate was mentioned by all participants to be too high and despite those calling family members was the most important factor for accessing communication services.

4.2.3.1.2 Missed Calls, SMS and Call Back

Participants mentioned that they knew about the SMS and mms services. Interesting to note that the alder participants expressed dislike and challenges in accessing SMS's as one participant explained:

". . . My children sometimes send this Please Call Me and I have to rely on these young boys around to read what the message says for me . . ."

4.2.3.2 ACCESS

4.2.3.2.1 Ownership of Mobile Phones and or SIM Card:

Mobile ownership was mostly motivated by the unavailability of fixed lines. This was evident since most participants had mobile phones with the exception of four. However, they all had access to phones with which they could receive and make calls. An indication that households in the Vrede rely on mobile phone; There seems to be a communal approach to owning mobile phones with all participants highlighting that they shared their phones with other family members. Only one participant of 54years did not seem interested in the technology at all.

None seemed to have restrictions on the way they use the mobile phones. Participants owned a variety of phones, some with cameras and some just simple phones. Some of the phones were second hand phones.

What seemed to bother some participants who had no phones was the distance to the public phones and unavailability of public phones at night. While relying on other family members' phones meant that at times they were inconvenienced:

> " . . . People can survive without phones, I have. I do know that life would be easier with a phone because then I will not have to wait for my mother to come back so that I can receive calls . . . I can phone whenever I want"

Another participant saw a more important need for owning a mobile phone and that is to be contactable while searching for a job.

An interesting result attained from this FGD was the confession by some participants about buying mobile phones for girlfriends. One participant claimed that he had bought a mobile phone for his girlfriend; rather, he was forced to buy the Cellphone, as this was the expectation from the girlfriend. And that meant that despite being unemployed, he had to make means to buy the phone or risk losing her: *" . . . hey I had no money but I had to make sure otherwise I would have lost her . . .plus she's hot and everyone wants her . . ."*

Family members of the participants with mobile phones were allowed to use their phones without permission. Some of the younger participants mentioned that they sometimes used their parent's phone without permission to make calls to friends.

4.2.3.3 OWNERSHIP AND USAGE OF PRIVATE FIXED PHONES OR USE OF PUBLIC PHONES AND OTHER COMMUNICATION TECHNOLOGIES

4.2.3.3.1 Ownership of Private Fixed Phones

All participants did not have private fixed phones or knew someone who had in their area. This may be because there was no fixed-line infrastructure in the area.

4.2.3.3.2 Availability of Public Phones

A private service provider owns the only public telephone available. There seemed to be an indication of one public phone in proximity to the area of the FGD.

Most participants said they preferred to "top up" their mobile phone when they have money because the public phones were either too far or too inconveniencing to use. One made mention of the lack of privacy and noise interruption as the main deterrent to use public phones. None indicated that public phones were necessarily cheaper. Those that did not have mobile phones relied mostly on the public phones to stay in contact.

Some also made mentions of using the public phones just to get a message across therefore do not spend much time or money.

4.2.3.3.3 Mobile Banking, e-Mails or Instant Messaging

All but one made mention of the instant messaging system (Mxit). None of the participants seemed to know about email and mobile banking (which they seemed to confuse with *In-Contact* notification service by FNB).

4.2.3.3.4 Affordability

None of the participants had contract mobile phones. There seemed to be a common financial challenge in terms of affordability and purchase of airtime. Most of the participants indicated that they bought airtime only when they could afford and mostly for R5 to R15. No mention was made of saving up airtime for emergency purposes. What was clear was the mutual agreement that cost was as influential in determining how participants bought airtime to communicate with other people.

Another interesting result was the tendency to buy airtime for spouses, siblings and girlfriends. Interestingly all the people supported in this manner are females. Only one participant mentioned that sometimes his father bought him airtime.

The younger participants in general were inclined to use the latest models with features such as camera and video. The older participants could not careless of the extra features since they had minimal or no education and only used the handsets to make calls.

An interesting observation that surprised the research during the FGD was when one of the participants phone rang and had a customised ringtone of a Ballad song by the Temptations. Another participant jokingly announced it is 'a ringtone for girls.'

4.2.4 Focus Group Report, Rural Low-End Users

VENUE: VREDE, NORTH WEST
TARGET POPULATION: FEMALE PARTICIPANTS ONLY
DATE: 01 DECEMBER 2007

4.2.4.1 SUMMARY

The focus group discussion was held at a house of one of the participants. The place was also considered viable for easy access and to make participants feel at ease, Vrede is a semi-rural area with a very close community of people that knows each other. Participants ranged from the ages 18 to 74. All the participants were from Vrede. A few participants were employed part-time and some were volunteers. The rest of the participants were unemployed. The highest level of education for of participant in this FGD was at tertiary level and some were still attending school and tertiary.

The focus group comprised of both participants that owned and used mobile phones on a daily basis.

4.2.4.2 PURPOSE

4.2.4.2.1 Primary Purpose of Calls

The participants used their phones to communicate with family and friends (including boyfriends). There was a general perception amongst the older participants that phones are useful only when communication is necessary and job related. Participants also noted that they receive calls from their friends and family and sometimes from colleagues. The mobile phone usage was limited to receiving messages or calls only.

The phones were mostly used for social matters, such as in the event of death, wedding and urgent family gatherings. Therefore, the participants said that they always have to make sure that they have airtime of at least R5 available for use whenever an Emergency arises.

One woman said they used the phone for urgent matters and made an example with the funeral arrangement and when making applications for credit with retail shops:

> "We phone the mortuary as well so that we do not have to go there. When you are looking for work you fill in your Mobile phone number so that when they (retail shops) are looking for you they can find you."

Another participant expressed her discontent with the father of her child who does not give child support. As a result, she is now involved with a married man who provides among other things airtime for her. The woman further indicated that she in turn uses that airtime to call "*the other fool" (*meaning the father of her child) using airtime bought by another man.

The only people that were allowed to use their mobile phones without permission were family immediate members; with the exception of a social worker that indicated that *" . . .we use anybody's phone that has airtime . . ."* meaning that her phone was more communal and dictated y her community involvement.

4.2.4.2.2 Missed Calls, SMS and Call Back

The usage of “Please Call Me” and Missed Calls was very popular amongst ages 18 to 35. It was very interesting to note that “Please Call Me” was personalized in order to convey a message using this free facility:

> “I use MTN so I can personalize the “Please Call Me” by typing “Please Call Tlaya” and “Tlaya” [means “come” in English]. Then the person you are sending the message can understand what you are saying”

It was equally interesting to note how participants referred to “Please Call Me” by saying, “Call Please Me”. Some participants said they send missed calls to people even when they are not confident that they will return their call.

The majority participants indicated that there was expectation that if you buy a Mobile phone for a family member, they should call you and also respond when you send them “Missed Call” or please call me.

It is important to note also that the older participants voiced satisfaction and comfort for their limited ability to make and receive calls only. And that it is the resistance to technology rather than the inability to text that hindered them to send SMS’s.

4.2.4.3 ACCESS

4.2.4.3.1 Ownership of Mobile Phones or Active SIM Card

All participants of this FGD owned mobile phones. And all indicated that they knew someone and neighbours and households that had one or more mobile phones. Some group members reported that they shared their phones with other family members in the household.

Most of the woman in the group was single and headed households; therefore ownership of a mobile phone in an area with no fixed line infrastructure makes it an important social tool utilized for security.

Participants owned different brands of mobile phones and all were using their second or third mobile phone because the first ones were either lost or damaged. Further, most participants were happy with safety in their area hence no mention of theft as a reason for owning a second or third phone.

4.2.4.4 OWNERSHIP AND USAGE OF PRIVATE FIXED PHONES OR USE OF PUBLIC PHONES AND OTHER COMMUNICATION TECHNOLOGIES

4.2.4.4.1 Ownership of Private Fixed Phones or Access to Fixed Line

All participants did not have private fixed phones or knew someone who has in their area. It showed that there was no fixed-line infrastructure in the area.

Use of Office Phones

Amongst participants there was a reservist who had access from the office phones from time to time. She had to ask for permission from a permanent staff member in order to make a call. But making the calls from a work phone was important because she has a child with a man that works in Pretoria and does not maintain his child said and making calls using her airtime would be an expensive feat:

> "I have a problem getting hold of the father of my child who works in Pretoria, since most of the time I do not have airtime and when I send him a 'Call Me Please' he does not call beck, I then rely on the office phone sometime to get hold of him".

Another participant, a 60 year old who is the Councillor in the Municipality also had access to the office phone whenever she was at the office.

4.2.4.4.2 Availability of Public Phones

Private service providers, the ones that are at the Spaza shops, own the only public telephones available. Most participants said they preferred to "top up" their mobile phone because the public phones were not cheaper that the mobile phones, as well as the benefits that come with using the mobile phones (such as, privacy, free deals by network providers) compared to public phones.

One participant raised privacy concerns when comparing between a mobile phone and a public phone:

> " . . . Yes . . . but sometimes when you have R5 you would rather buy airtime because you want to discuss private matters which cannot be discussed on a public phone . . ."

The usage of public phones did not appear as the first choice of communication. Most participants used it rarely, citing lack of privacy as one of the main reasons that deter them.

Further, public phones are not available 24 hours and are closed by 18h00. A few participants said they sometimes used the public phones to ask people to call them back on their mobile phones as means to instil urgency on the part of the recipients of their calls.

4.2.4.4.3 Mobile Banking, e-Mails or Instant Messaging

None of the participants used the e-mail or knew how to use it. Even those that have volunteer and part-time jobs had access to the Telkom. The participants knew little or nothing at all about telephone banking even after a brief was given to them about cell-phone banking.

The majority of the group did not know about Mxit except for an 18 year old participant who seemed to be using the service and obviously happy about the benefits.

4.2.4.4.4 Affordability

All participants of the FGD owned their second or third phone. Participants of ages between 18 and 25 had the latest Mobile phone models that have the latest features such as camera and video. It is the impression of the researcher that modest phones were purely for aesthetic appeal rather than functionality. The older participants could not careless of the extra features since they only used the mobile phones to make calls only.

None of the participants had contract mobile phones. The woman largely relied on their families to buy them airtime. The R5 airtime was popular and encouraged most participants to use mobile phones rather than public phones. There were a few participants who did not have airtime, most participants made sure they have at least R5 for emergency purposes.

Participants who were mothers mentioned that they always had airtime and because of the immense responsibility, understood better how to conserve airtime and not waste airtime on unnecessary calls.

Furthermore participants confirmed that food was priority and airtime followed only after securing a budget for groceries. If there was not an enough budget to purchase groceries, then airtime is compromised.

> ". . . Yes, sometimes there is no money at home that is why it is such a problem to buy airtime . . ."

An important observation emanated from the rural FGD where a woman expressed her view when asked about the relation of abuse and affording airtime:

> ". . . I normally don't have units therefore I will not be able to use my mobile phone . . . I would most probably hit him myself . . . "

Participants between ages 18 and 25 indicated that they bought airtime of R5 when they wanted to call friends and also for security. They do this by memorising numbers of siblings, friends and parents to call when an incident occurs.

4.2.5 Focus Group Transcripts: Urban Average Users

VENUE: DELFT, CAPE TOWN

DATE: APRIL 2008:

TARGET POPULATION: FEMALE PARTICIPANTS ONLY

4.2.5.1 SUMMARY

The focus group discussion was held in an area classified historically as a 'Coloured' township on the Cape Flats 50km outside of Cape Town. Consistent with the Apartheid trends, this township is one of the many that appeared as a result of forced removals by the Regime of non-Whites from the Cities.

Most participants of this FGD had cellphones and or prepaid TELKOM/fixed line. Only a couple had TELKOM lines only. There were only two married participants and single participants were dominant with a few divorcees. Age range was between 17 and 65 years. Most were unemployed and/or housewives with the exception of a few who were marginally employed and poor. The preponderance of single-headed households seemed to be the norm.

Of the married women, one had no Cellphone or TELKOM line while the other had both Cellphone and TELKOM pre-paid line.

One woman who was marginally employed was a community worker (anti-drug campaigner) mentioned she was seldom paid but usually received airtime from the courts to compensate for her telecommunications expenses.

All but one, the youngest in the group, had children and a few had grand children. Some of their children were employed and supported the households financially. Some households were battling drug abuse by their children. The entire community was battling other social challenges such as gangsterism as is common in the Cape Flats.

Illiteracy was also observed as present within the participants and therefore inhibited the extent for usage of cell phones and ICT's in general.

4.2.5.2 PURPOSE

4.2.5.2.1 Primary Purpose for Making Calls:

Almost all the participants used their phones for social and business purposes and mentioned that most calls received and made were calls from and to friends, family and from colleagues in order to stay in touch.

A woman indicated that the phone was important because it enabled her communicate with her son who lives in London. While another indicated that her daughter uses her phone to download music but under strict supervision.

Another participant mentioned that her phone was important for social work administered through the courts.

> ". . . We can't do without a phone, if you see someone on the street in need of help; we need to report and assist; so for that we need to be in contact . . ."

Although identified to be a cheap alternative to circumvent high costs, some participants, especially the older, expressed dislike for SMS and preferred to call instead. This was attributed to various reasons such as illiteracy and inability to grasp and use technology effectively.

All participants identified security as the main reason to own a mobile phone despite the lack of regular income, which inherently affected usage. And general use of mobile phones was limited to voice calls.

4.2.5.2.2 Missed Calls, SMS and Call Back

These were recognized as cost-saving methods of communication; and important for conveying messages in case of emergencies as one participant mentioned:

". . . They know when it's a 'please call me' then it is an emergency . . ."

Most women agreed to have used this method of communication and largely used it to contact people they were confident would call back.

4.2.5.3 ACCESS

4.2.5.3.1 Ownership of Mobile Phones and or SIM card:

Most participants agreed that they own a mobile phone. A few had Telkom lines at their households whilst three of the group of eleven had no mobile or landline phones. Judging by the preponderance of female-headed households, women were forced to acquire phones by themselves and sometimes with the help of family members as demonstrated by one participant who got hers from her daughter.

One young participant confessed she had gotten her phone from her boyfriend who was also paying for the contract account.

4.2.5.4 OWNERSHIP AND USAGE OF PRIVATE FIXED PHONES OR USE OF PUBLIC PHONES AND OTHER COMMUNICATION TECHNOLOGIES

4.2.5.4.1 Ownership of Private Fixed Phones or Access to Fixed Line

Some participant agreed to have prepaid Telkom landline telephones in their households. Some of the participants, who had no phones, relied on neighbour's landline telephones for communication. However only one of those present in the FGD mentioned that in their households, only family members were allowed to use the landline phone. The rest claimed that their phones were available for use by non-family members as well.

4.2.5.4.2 Other Communication Technologies

All participants claimed they had no access to a computer ad had not used one in the past

4.2.5.4.3 Mobile Phone Banking

Participants displayed scepticism and distrust towards mobile banking and some had no interest at all. Some participants were concerned about the high costs associated with buying airtime as a barrier to considering the options to send and receive emails and to do mobile banking.

4.2.5.4.4 Affordability

Other than the participant who was involved with community and social work and whose mobile phone usage was subsidized by the courts (R300 a month), most women paid for their phone usage as a result of being female-headed households. The participants that claimed to use neighbours' phones claimed they were sometimes charged between R5 and R7 per use.

Some participants revealed that phone usage impacted negatively on the household/food budget.

Cost to call was recognized by all participants as a barrier to their fluid use of mobile phones and other communication tools.

4.2.6 Focus Group Transcripts: Urban Average Users

VENUE: DELFT, CAPE TOWN

TARGET POPULATION: MALE PARTICIPANTS ONLY

4.2.6.1 DATE: APRIL 2008

4.2.6.1.1 SUMMARY

The focus group discussion was held in an area classified historically as a 'Coloured' township on the Cape Flats 50km outside of Cape Town. Consistent with the Apartheid trends, this township is one of the many that appeared as a result of forced removals by the Regime of non-Whites from the Cities. It is also a drug-infested area where use of "TIK" rife. TIK is a widely locally used drug.

Two of the participants of this FGD had prepaid TELKOM/fixed lines, which they claimed as 'theirs' alone. The wife of one of the participants with a fixed line is disabled and is not able to use any kind of phone according to the husband. There was prevalence among the male participants to give away their cell phones to their children, girlfriends and other family members.

Most of the participants seemed to have knowledge of computers and or owned them in their households. The age range of participants was between 16 and 60 years. And most of the older participants were married.

4.2.6.2 PURPOSE

4.2.6.2.1 Primary Purpose of Calls

Most participants claimed they made most call to family members, colleagues and friends, for social and business purposes. While recognising that the mobile phone can be a distraction at times, participants identified it as a critical communication tool in case of emergencies:

> ". . . There are times when I did not take my mobile phone to work and my wife called to my work number with something important and my foreman would not give the message until the end of the day. When I have a mobile with me, I am able to receive important messages immediately . . ."

It is interesting to note that elder participants of the FGD expressed challenge in using the mobile technology optimally. One elder claimed that he did not *"know 10% of what is going on that phone . . . and maybe the phone companies should find an easier way to educate us on the usage of the function of the mobile phones . . ."*

4.2.6.2.2 Missed Calls, SMS and Call Back

Most of the participants agreed to use the SMS and call-back facilities. Consistent with other FGD findings, most participants use the facility to contact family members; friends and colleagues whom they were certain

would call back. Some acknowledged however that sometimes the call back does not yield a response. The elder participants acknowledged that their children are often the ones who sent them Please Call Me and expected to be called back.

4.2.6.3 ACCESS

4.2.6.3.1 Ownership of Mobile Phones or Active SIM Card

There was a mixed response to this question with most participants owning mobile phones. A few had no phones at all and relied on relatives and or friends to access communications. A couple had access only to Telkom landline phones at their household. A middle-aged participant, a pastor, understandably had no mobile phone because he had afforded his children and wife the privilege to own phones and relied on household Telkom phone.

Interestingly, about five of all participants claimed to have given their phones to females either spouse, girlfriend or sibling circumstantially because of the high crime rate. But most acknowledged that it was easier to own a mobile phone because people can now purchase mobile phones using clothing accounts.

4.2.6.4 OWNERSHIP AND USAGE OF PRIVATE FIXED PHONES OR USE OF PUBLIC PHONES AND OTHER COMMUNICATION TECHNOLOGIES

4.2.6.4.1 Ownership of Private Fixed Phones or Access to Fixed Line

Half of the participants claimed to have prepaid Telkom landlines. Interestingly, one participant (married) claimed that he regulates the use of the landline at his household. Meaning that even the wife has to ask for permission to use the phone. The reason for this as he explained was because he pays the bill for the Telkom landline. He acknowledged however

that the entire family is able to use the line provided they ask for permission—this allowed him to regulate usage of the phone and budget accordingly. Interestingly, he acknowledged that his children use the landline in order to save airtime on their mobile phones, this he did not seem to have a problem with.

A young participant confessed that in order for him to use the Telkom landline, he had to ask his mother (as the head of the household) for permission to use the phone. However, it was interesting though that he is able to use the phone freely when it is him that buys airtime.

". . . I have to ask my mother . . . she pays (meaning the phone bill). . ."

4.2.6.4.2 Availability of Public Phones

Public phones seemed to be common in the area and people used them as a convenience to convey short and important messages. One participant who is a businessman claimed to own one public phone facility.

4.2.6.4.3 Other Technologies

In contrast to the female FGD results from the same area, males claimed to computers at home or new someone close to them or neighbours with computers. Furthermore, some participants had Internet at home and used it for various reasons such as research and *"to assist children with school projects."*

Participants also claimed that there was a library in the area that offered Internet access to the community and that scholars mostly used it.

In general, participants recognized the role of technology as simplifying their lives.

4.2.6.4.4 Mobile Banking, e-Mails or Instant Messaging

Participants claimed to know people or their children that use Mxit. The elder participants voiced concern about the safety of the facility with one claiming that his daughter sacrifices sleep in order to chat on the Mxit platform. His concerns as acknowledged by other participants were regarding pornography and to whom the children chat to.

4.2.6.4.5 Affordability

Similarly with all other FGD's, youth were likely to own smarter phones because of the aesthetic appeal rather and their ability to adapt to Morden technologies. Ironically, it was revealed during this FGD that the drug-ridden township is infested with thugs who rob phones to satisfy the drug crave. Often, the very youth become primary victims because of the fanciness of the mobile phones:

> " . . . There is an increase in crime, especially mobile phone crime, children are robbed of mobile phones and they are sold to buy drugs . . ."

This has resulted in other youth not being able to afford purchase of mobile phones partly because of the repeated theft occurrences.

Only one participant claimed to have lost interest in the phone and therefore gave it away:

> ". . . We as grown up find it hard to master these mobile phones, but the youth tend to master in much quicker than us . . ."

Availability of more than one mobile phone in households enabled some participants to be connected at the expense of family members. However, none of the participants voiced any disapproval by family members about this sharing behaviour.

Participants also acknowledged that the cost to communicate (per unit) is expensive despite the special deals perceived optimization of network special discount deals as critical. Convenience was highlighted as the primary

motivation for tolerance of high communication costs associated with mobile phone costs. Needless to say that SMS and Please Call I were the most common way to communicate as means to circumvent the high costs associated with making mobile phone calls. This also prevented them from using the phone to call government whom they perceived as the most expensive to contact by phone.

Most of the participants at the FGD claimed to have paid for airtime for their spouses, children, and girlfriends even though some did not own mobile phones for themselves. A young participant who had given his phone to his girlfriend claimed that he also pays for her airtime:

> ". . . She comes to me and says that she wants to make a call and I will buy her airtime . . ."

Further, the elder participants that had mobile phones seemed to consistently have airtime on their mobiles for various reasons such as community work. Only one participant claimed to be receiving airtime bought by her daughter who lives in Johannesburg on a monthly basis. One elder participant voiced his concern regarding how his child abused airtime on his mobile phone because he did not know how to operate the phone other than making and receiving calls:

> " . . . I gave my mobile to my son . . . so when he arrived on Friday, all the airtime was used and I don't know whom he called . . . he says the phone was in his pocket and on speed dial and it just used up the airtime. So I don't know, I'm just busy learning . . ."

CHAPTER 5: RESEARCH RESULTS ANALYSIS OF GENDER-BASED ICT ADOPTION AND USAGE

5.1 ANALYSIS OF THE QUANTITATIVE RESULTS

The Mann-Whitney U Tests results provided a simplistic approach to test the hypothesis that '*there is no significant difference between male-headed households and female-headed households in the percentage of people with mobile phones.'* According to the results and contrary to the hypothesis, it appears that in all households, male-headed households tend to have a greater share percentage of mobile phones than female-headed households.

Although the Mann-Whitney U Test provides a simplistic approach to arrive at the conclusion that more mobile share percentage can be observed in male headed households than female headed, many factors can be attributed to this result, such as household employment and geographical location of households.

Female-headed households are most likely to have children and may have less disposable income to spend on ICT's such as mobile phones due to family responsibilities. Female households are most likely to be pre-occupied with an efficient spend of their income in order to improve and sustain basic needs for their households including food, clothing and education for their children than owning of ICT gadgets such as a mobile phones (Martins, 2006). This is truer in rural households as will be argued in the forthcoming paragraphs.

Agreed that communication in modern societies is a basic need equally critical for survival as water and food, it comes as no surprise that female-headed households are more likely to have less access to mobile phones than male-headed households considering the compounding negative challenges that women must overcome for mere survival and livelihood of

their households more especially in rural environments. A report by the Economic Commission for Africa found that in general, men are more likely to have greater access to communication facilities and other technologies than women (ECA, 2006). Gilwald et al. corroborate this finding that in rural areas, men are more likely to own and have access to phones than women(Gilwald et al., 2010).

Analysed differently, employment statistics are such that male-headed households in general are more likely to have better income than female-headed households. Female-headed households are mostly likely to constitute of unemployed individuals and therefore less buying power and at worst, no disposable income.

According to Haidar et al. (2009) "female-headed households tend to be poorer, own less and have less access to job opportunities and government services in most developing countries*"* (Haidar et al., 2009, p. 70).

Dominance of male-headed households to ownership of mobile phones is not an exception to the norm, which is truer for rural households where female-headed households are exposed to far greater challenges such as poverty, illiteracy, and ill-informed cultural practices (Gilwald et al., 2010).

More noteworthy is the revelation by Gilwald et al. that "poor women may have more in common with poor men in their own and other countries than with less marginalised women in their own and other countries"'(Gilwald et al, 2010, p.1). This means that poverty is an important determinant to access and usage of ICT's more than gender or household headship. Although income is regarded as a significant contributor to adoption and usage of technology, '*Income increases the probability of mobile adoption,*' (Chabossou et al., 2008); even when there is some income in the household, female-headed households are more likely to be pre-occupied with optimising the healthiness of their households than purchasing mobile phones.

A study by Haidar et al. found that children from female-headed households are likely to be unhealthier in comparison to children from male-headed

households (Haidar et al. 2009). This highlights how deeply embedded gender bias is to our societies where resources are unevenly distributed to households and largely influenced by the gender variable (Haidar et al. 2009). Women-headed households and women in general are instinctively bound to spend the minimal income on priorities such as food and health.

Following the rejection of the hypothesis by the Mann Whitney U Tests, more complex analysis tools had to be used to find a detailed explanation to the cause for rejection of hypothesis that there is no difference between MHHH and FHHH in percentage of ownership of mobile phones. Using the Linear Regression Model (LRM), the results could further explain 20% of the variation in the number of mobiles per household. The dependant variable used to support test was *number of people in a household with mobile phones divided by the number of household members*. The independent variables were household income, household being headed by women, whether the household is located in an Other Urban area i.e. not Johannesburg, Pretoria, Port Elizabeth or Cape Town, and household in rural areas.

All but one of the independent variables had a significant impact on the number of mobile phones per household. The independent variable for *households headed by women* was not significant and therefore being in a female-headed household did not determine ownership of more or less share percentage of mobile phones in households.

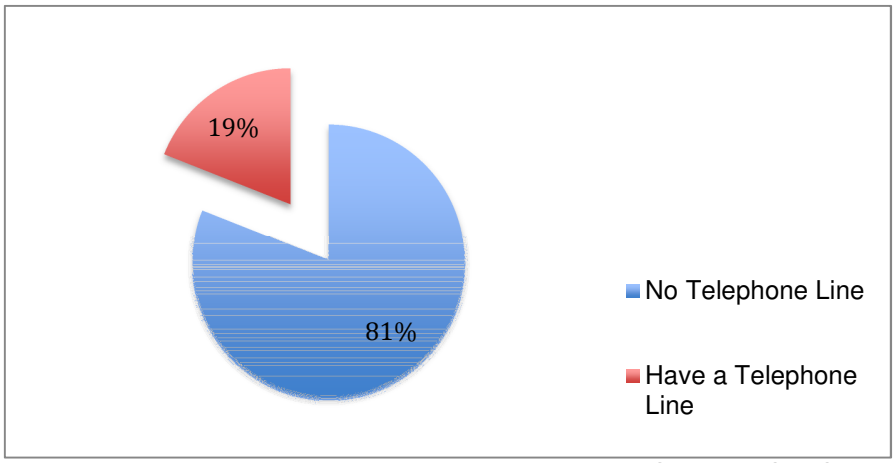
Furthermore this revelation is contrary to the Mann-Whitney U Tests, which already acclaimed that there is *significant difference between Male headed households and Female headed households regarding the percentage of people with mobile phones.*

The significant difference observed for all other independent variables such as *household income* resonates with the point raised by Gilwald et al. (2010) that poor men and women share more in common in terms of access and usage of ICT's. It projects the notion that a household without income or

being poor is the determining factor granting access and usage of mobile phones.

The limited landline penetration in South African households, which continues to drop in favour of mobile technologies, is a deterrent, especially because fixed line telephony is largely concentrated in urban areas (BMI, 2010). Figure XIX below reveals that landline telephony penetration in South Africa in 2008 was at a measly 19% and has probably since dropped even lower. To support the argument further, Probit results showed no significance on ownership of a landline telephone when controlled with household headed by women, being in a rural or urban environments, household income and household size.

Figure: XIX. South African Household Landline Telephone Penetration, (%) 2008



Source: USAASA 2009/2010

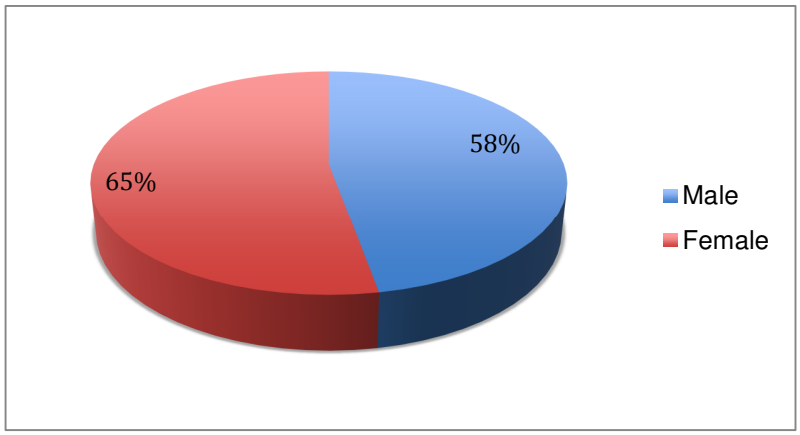
The quantitative results do not reveal usage patterns on landlines other than observing patterns of ownership. Freedom of speech in the presence of males in household was not observed and this subject is referred to in the qualitative analysis of this report. It will be interesting to measure whether males influence usage patterns of fixed lines for female household members. The assumption is supported by the theory around access to radio programming of choice as highlighted by Gilwald et al, (2010) that the

presence of males in households inhibits female choice of programming (Gilwald et al., 2010).

Female-headed households stand a better chance to adopt and use this form of communication in contrast to households headed males where access to this facility is likely to be regulated by the male household head who like in the radio example, will probably limit how and whom the females call; it is probable that such a practice is consistent with patterns of dominance by males largely influenced by cultural barriers that have been deeply inculcated into our societies for centuries.

Contrary is the finding that females in South Africa were significantly more likely to own mobile phones than males, see Figure XX below (Gilwald et al. 2010). The Probit model revealed that being a female is significant and positive, meaning that there is an increased probability that being a female you are likely to have a mobile phone. Another of the results presented in this paper reveals that females are more likely to receive mobile phones from family and friends more than males. Perhaps this is the explanation for more females owning mobile phones.

Figure: XX. Chart 6: Persons over age 16 with Mobile Phone or Active Sim Card (%)

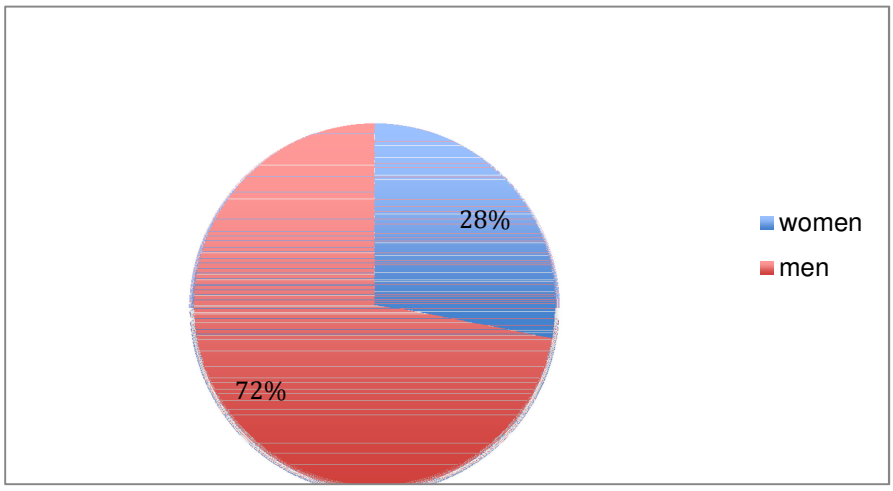


Source: Gilwald et al., 2010

Further living in a rural area means there is an increased probability of not owning a mobile phone irrespective of gender as proved by the Linear Regression Model tests. Lastly, education increases the chances of owning a mobile phone.

Females are likely to spend less than men on mobile phones, and have lesser average income than men. Calculated in US Dollars PPP (Purchasing Power Parity), for women it was at 442 compared to men's 1133, see Chart 5 (Chabossou et al. 2008).Females are more likely to spend less or have limited buying power on mobile phones because of limited disposable income and or other responsibilities that necessitate them to limit spending on mobile phones in favour of other priorities (Gilwald et al., 2010).

Figure: XXI. Percentage (%) of Average Income based on survey sample [US$ PPP]



Source: Gilwald et al., 2010

This finding supports the observation by Gilwald et al. (2010) about females' limited average income when compared to males, suffice it to say that income increases likelihood for expenditure on mobile phones subject to individual budgets (Gilwald et al., 2010; Chabossou et al., 2008). In the results presented in this research paper, it is suggested that females spend a fractional less than males on mobile phone expenditure on a monthly basis. Further, the results suggest that people living in rural areas tend to spend less on mobile phone expenditure than people in urban areas.

It is important to note that both the Chabossou et al., (2008) & Gilwald, et al., (2010) (whom I also reference in this report) share findings based on the same data sets as for this research paper even though the two mentioned reports used specific data sets relevant to individuals and not gender and household headship.

In as much as Gilwald et al. (2010) validate that income and education generally influence individual ownership and consumption patterns of ICT's (Gilwald et al, 2010), this report also found that mobile ownership at individual

level is influenced largely by income, location of household, age and education.

Chabossou et al. (2008) add a spin to the debate by claiming that individuals with high income tend to spend less on mobile phones than individuals with lower income. Interpreted differently, it could be that communication is an essential 'must have' tool for survival and largely critical for poor individuals in order to make ends meet. Persons in rural places may be highly dependent on communications as means to solicit income or donations for their families.

The test for differences in household income between female-headed households and male-headed households revealed that there is a significant difference between male-headed households and female headed households. Male-headed households are more likely to have significantly higher income than female-headed households. This household finding is consistent with much literature on the subject of gender, income and or employment, some of which is referred to in the Literature Review. Generally, women are less likely to be employed than men (Gilwald et al, 2010).

Education is a different form of constraint; a less-educated individual is likely to avoid using ICT's because of intimidation to use technology. However, both education and income are important factors to consider in relation to this report. Females are suppressed by culture to generally have less access to education facilities, especially in rural areas.

Gender differences also exist in access to ICT's where there is a greater reliance to public access points (Gilwald et al, 2010).

Another important finding of this report is that the location of households in rural areas significantly influences the ownership of mobile phones, presumably because households in rural areas have less economic opportunities than urban households. Therefore access to ICT's such as mobile phones is scarce and largely dependent on many factors such as

household electricity, household employment or income, literacy and even the prevalence of communications network and signal in the area.

Gilwald et al (2010) corroborate this finding in by claiming that ICT diffusion is largely concentrated in urban areas (Gilwald et al, 2010). Households located in rural areas are more likely to have less share percentage of mobile phones than urban-based households.

5.2 ANALYSIS OF THE QUALITATIVE RESULTS

The nature of the Focus Group Discussions (FGD's) was structured such that patterns of usage between males and females can be observed separately in order to ascertain whether differences exist between male and female adoption and usage of ICT's. According to Gilwald et al. (2010), "men and women adopt and use technology differently" (Gilwald et al., 2010, p. 3).

The qualitative approach to data collection on individual usage patterns is also used to inform household usage patterns since all participants belonged to some household that was surveyed during the quantitative research.

A general observation across the FGD's where females were participating is that there was a preponderance of single headed households especially in females only FGD's. As indicated in the literature review of this report, FHHH are more likely to be poor and therefore have less disposable income to spend on ICT's.

5.2.1 Purpose

5.2.1.1 Primary Purpose of Calls

Findings from the Focus Group Discussions (FGD's), both female and male, indicate that usage was almost always for the purposes of communicating

with family and friends; to keep in touch, convey information or for security purposes. In urban areas, communication was also used for business and keeping in touch with colleagues. The rural FGD participants recognised communication as an essential tool for economic opportunities. The primary purpose for calls was consistent across all gender groups irrespective of economic classification. Even social workers who were incidentally part of the FGD's highlighted that the use of mobile phones was critical for their kind of work because they needed to provide help instantly to people in need; and their services were available for both man and women provided there was a need. In some provinces, the courts subsidise social workers irrespective of gender, for the cost of calls while on duty. The primary purpose for receiving and making calls has no gender-specific pattern as observed across all the FGD's.

It was also interesting to note that males support usage of their girlfriends, spouses and female siblings. Specific to girlfriends and spouses, there was some sense of control displayed by men; a pre-condition that the women are subjected to call males because they bought the phones or the airtime. A male participant voiced his frustration when his girlfriend failed to respond to his persistent mobile phone calls even though he had bought her the phone:

> " . . .Though I pay for it (mobile phone), I still can't get hold of her . . ." (FGD participant, 2007).

Another participant from a rural FGD claimed that: "I buy airtime for my wife so that she and the children can call me."

There seems to be an expectation by males that they can control the usage of their female counterparts if they buy or pay for usage of phones. Sometimes it is the female that demands for support as one participant indicated, how he was forced to buy his wife to a mobile phone, sighting that:

> " . . .She asked me why I didn't buy her a phone . . .she thought I was having an affair and that's why I didn't buy her one—why would I need a

phone if she doesn't have one . . .?"

On a different observation, the younger generation seemed to make more calls to friends than older generations and this observation was also not influenced by gender. Age rather than gender is the influential variable determining usage patterns.

5.2.1.2 Missed Calls, SMS and Call Back

Individuals living in rural areas both female and male, relied extensively on 'Please Call Me' and 'Missed Calls' to communicate and had at the most, one mobile phone or active SIM card. 'Please Call Me's' were often customized in order to convey the message to the receiver. All FGD participants irrespective of gender indicated similar patterns of use of this service.

As was observed, this behaviour is not influenced by gender but by the perception projected by the sending individual of the 'Please Call Me' and 'Missed Call' that the receiver has the ability to buy airtime and therefore can afford to call back.

> " . . . It's an agreement between me and whoever that person and I would say . . .send missed calls maybe this person earns more than I do and I know they are going to be talking for hours . . ." (FGD participant, 2007).

"Please Call Me" and Missed Calls are a popular form of communication enabling a cost-less platform to convey important messages. While some participants agreed to have used this facility with the expectation that the receiver of the message can afford to call them back, others simply used the service in a manner that allowed them to convey the message across without expecting a return call. Both genders and across all FGD's, were equally using this method of communication with the exception of older participants. Older generations were less likely to use advanced or complicated

technology services because of technological inferiority in contrast to young generations

The fact that the cost to communicate in South Africa is so high could be the main reason for the widespread use of 'missed calls' and 'Please Call Me' services as a basic and economical communication strategy. Again, it is not gender but cost to communicate that influences the use of this ICT services; therefore cost determines access and usage patterns.

In addition all FGD's including the high-end users, acknowledged this service as a widely used and economically viable service to convey messages in cases of an emergency. Again, it is the necessity to contact rather than gender that determines the use of 'Missed Calls' and 'Please Call Me.'

5.2.2 Access

5.2.2.1 Ownership of Mobile Phones or Active SIM Card

Ownership of mobile phones particularly for females was prevalent and maybe influenced by many reasons such as necessity to have communication in single-headed households as well as a result of hand-downs since females were always on the receiving side. Moreover, male FGD's were identified to have less mobile share and this is consistent with Chabossou et al. (2008) Report that females in South Africa are more likely to have mobile phones than males.

Albeit the multi-sex high-end users FGD revealed that majority of the participants had bought or donated phones to other family members irrespective of gender meaning that it is the ability to buy more than gender that influences who gives phones to other family members. Needless to say those females were most likely to be receivers of mobile phones as donations than males.

Another participant expressed her discontent with the father of her child who does not give child support. As a result, she got involved with a married man who provided among other things airtime for his lover. The participant further indicated that she in turn used that airtime to call *"the other fool"* (meaning the father of her child) using airtime bought by another man.

Needless to say those males were also observed to be often the givers of mobile phones, to girlfriends, spouses, siblings and children. By virtue of this conclusion that men gave out more phones than men cannot however be interpreted to mean males have more mobile phones than females. As Gilwald et al. concluded: *"women with similar income, education, employment status etc. will be as likely to have a mobile phone as men" (*Gilwald et al., 2010, p. 18).

The male FGD's revealed that it is the females that benefited the most from airtime and mobile phone give-aways. Could it be that males enjoy more buying power over females? Empirical evidence suggests that males and male-headed household enjoy far greater economic, political and social opportunities than females. This could be the reason that more males tend to give away their mobile phones and related resources such as airtime, sometimes conditionally in order to perpetuate their dominance over females.

The fact that the high-end users FGD experienced the behaviour to hand down phones and or buy airtime the most it suggests that it is affordability more than gender that influences hand-downs and buying of airtime for family members.

Having more than one SIM card was evidently common only among high-end urban users and was evenly spread to both female and male participants. Although gender may play a role in that females are likely to have minimal or no income and are always prone to earn less than males while overshadowed by immense responsibilities—the FGD's could not conclusively determine this fact. Females are bound to keep ICT usage at a minimal use. The evidence

presented in this report however indicates a common affordability-based approach to ICT consumption for both female and male participants as a result of high costs associated with ICT's and the high-end FGD illustrated that it is the necessity to drive down costs that prompted most to have more than one SIM or mobile phone.

Only the urban multi-sex high-end users' FGD had participants with more than one active SIM card and mobile phone and projected an impression that income is the influential factor. This pattern was consistent for both male and female participants, meaning it is influenced by the ability to afford. All participants were considered high-end employed users; both female and male participants displayed equal access and adoption patterns of ICT's. Therefore affordability influences usage of mobile phones.

Contract phones were evidenced only in the high-end urban population sample and non-existent in the other population samples; and both female and male participants had contract phones and or more than one SIM card and or mobile phone.

Alike, the rest of the FGD's projected ownership as largely influenced by affordability. Majority of the participants, both male and female who did not own mobile phones claimed it was income that was inhibiting them from owning mobile phones. In rural FGD's ICT's such as a mobile phone was far less than in urban FGD's and no mention of computers were recorded.

This means that rural areas are likely to have limited economic activity and therefore lesser opportunities to purchase ICT's. The FGD's results revealed that access and usage of ICT's is skewed towards urban areas. This can be attributed to many reasons; one probability could be that households located in rural areas are more likely to be poorer than households in urban environments. However adoption of mobile phones in rural Vrede seemed to be also spurred by the lack of alternative landline telecommunications infrastructure as observed in the discussions.

A tendency by younger generations to have newer and smarter phones than older generations was observed during the FGD's suggesting that older generations are Inferior to technology. Gender is not at play in this regard. Young generations are more likely to own and use phones more by virtue of being attracted to technology than older generations—interestingly as was the case with an older FGD participant that there was a sense of solidarity illustrated by young generations to assist older generations in understanding how to use ICT's such as mobile phones:

". . .My children sometimes send these Please Call Me and I have to rely on these young boys around to read what the message says for me . . ."(FGD participant, 2007).

Even though there was a general understanding of the need for communal access and usage of phones both mobile and landline in households, males or male-headed households believed that female members of the household must ask for permission to use the TELKOM landline. This measure of control by males can translate to mean that because the males have the buying power (where they are heads of households), they therefore dictate usage patterns of phones. It could also be because of social patterns related to embedded gender discrimination stereotypes.

The FGD's reveal that control of landline phones was influenced by affordability more than gender and served as a circumvention measure to control abuse of phone airtime by other household members. Older people tended to control use of their mobile phones and or landlines by the younger generation purely for economic reasons and this behaviour was gender-neutral. A young participant confessed that in order for him to use the Telkom landline, he had to ask his mother (as the head of the household) for permission to use the phone. This is further illustration that regulated use of landline phone is not based on gender but on cost.

5.2.3 Ownership and Usage of Private Fixed Phones or Use of Public Phones and Other Communication Technologies

5.2.3.1 Ownership of Private Fixed Phones or Access to Fixed Line

Despite lack of economic resources in the area, the adoption of mobile phones in rural Vrede was triggered by the lack of alternative landline infrastructure. Further qualifying that Telkom Landline is limited.

Telkom landline was moderately available to urban dwellers though most participants seemed to be discontent with the service citing issues of inconvenience and poor customer experience when dealing with Telkom as the main deterrents to owning a landline.

The few that were employed in rural areas mentioned that they used work phones for personal calls-again citing cost as the main reason for not affording to have airtime and preferring to use work phones instead. This behaviour was also noticed for urban areas and is largely driven by the necessity to call. All employed and with access to work telephones use this platform to make personal calls.

It is equally important to note that in MHHH where there is a landline, males regulated the use of household landline phone but purely for economic reasons rather than gender.

5.2.3.2 Availability of Public Phones

Public phones are equally not popular for both genders and are scarce in rural areas where people have to walk distances to reach a public phone. For women, this poses a serious risk to their security and wellbeing.

Needless to say that public phones were the convenient form of communication for those without mobile phones and were used by both males and females despite the associated risks for women.

All FGD's mutually expressed that they would only use public phones as a last resort. This can be interpreted to mean that if participants could afford mobile phones and airtime, they are less likely to use public phones irrespective of gender

5.2.3.3 Other Technologies

Reference to technologies and services such as broadband, dial-up, GPRS, number portability, Cellphone banking and 3G as observed in the high-end users' FGD suggests that there is a relation between income and ICT literacy.

In addition and with the exception of the high-end users FGD, the other FGD's revealed that males have more knowledge and access to computers than females. However, male-dominance of technologies could only be observed limitedly; therefore the researcher cannot conclusively commit that male dominance of adoption of technologies is obvious. Further studies to investigate this matter are necessary.

A study by Chabossou et al. (2008) found however that "Men's decision to use technology is strongly influenced by their perception of usefulness, while women's decisions are based more on perceptions of technology's ease of use" (Chabossou et al., 2008). It is possible therefore those male participants were driven by usefulness of technology that influenced to dominance in use than females. But this report is limited in confirming the statement above.

Internet was almost non-existent in poorer FGD's such Vrede and was minimal in Delft-further highlighting that it is the metro urban areas that have access to this type technology.

With the exception of a few young rural FGD participants (male and female), Mobile*Banking, e-Mails or Instant Messaging* in these communities was not known or understood—further highlighting that technology is skewed towards urban areas and is not influenced by gender. Based on the observations of this research, the younger generation and irrespective of gender, were more

likely to depend on social networks such as Mxit in order to circumvent the high cost to communicate.

5.2.3.4 Affordability

Across the FGD'sthe cost *to own* and to *communicate* was highlighted as the biggest inhibitor. And people have devised strategies to circumvent the high costs:

" . . .So I went on to get my landline so in the evening we can spend hours on the landline phone and in the afternoon, we are talking on the mobile phone by sms'ing because its it is expensive . . . having both phones works better for me . . . Everyone is complaining about it you know and off-course it is expensive.. ."(FGD participant, 2007).

No income means less likelihood to own or optimally use a phone and or benefit interchangeably from various network providers as observed with the high-end users.

> ". . .Income increases the probability of mobile phone adoption . . ." (Chabossou et al., 2008, p. 7).

As acclaimed by the high-end FGD participants, having multiple active SIM was due to the necessity to leverage from telecoms providers specials, differing call charges and calling opportunities. One participant highlighted that she was driven by the need to separate personal and work-related information and activities. It is also likely that because income is relative to the level of education and literacy, whereas participants/households in urban setting have access to information and education that otherwise is scarce in rural settings and are more willing to share this information with the people they call:

***" . . .*When calling in the evening I will ask if you have a landline and if yes I will suggest I call on the landline . . .and if one is on pay-as-you-go, it works better that way *. . ."*(FGD participant, 2007).**

Of the participants who owned more than one mobile phone, income and affordability and not gender enabled them to manoeuvre between mobile networks and interchange with Telkom landline in search of cheaper calling rates. Needless to say that the high-end group also utilised 'Please Call Me' and 'Missed Calls' as cheaper forms to communicate.

Women in the FGD revealed that they satisfy the need to communicate at the expense of other household priorities. This finding is consistent with Gilwald et al. (2010) that *"*phone usage impacts on the household and food budget*"* (Gilwald et al., 2010,p. 16).

Furthermore the FGD's project that mobile phone ownership is a sense of convenience and a safeguard for privacy—a probable justification for dominance of women-ownership of mobile phones in South Africa, as also observed by Chabossou et al., 2010.

This necessity is truer in male-headed households where women are likely to be subjected to male dominance, abuse and control; they would benefit greatly from the sense of having privacy through the use of mobile phones. In South Africa, males expose females to high levels of abuse thus females are likely to use mobile communication to seek urgent help. Gilwald et al. (2010) further found that "women were primary receiver of calls, some of which they would initiate either with missed call or a 'please call me*"* (Gilwald et al., 2010, p. 17).

For female-headed households, communication is a vital tool for security, to monitor children, to source income, to confidentially report abuse, to keep in touch with family members in case of deaths, weddings etc. Ironically, the communication examples above are also true for male-headed households.

The R5 airtime was popular for all genders in lower income and more so in rural areas. Again gender was not the determinant; however women tended to make certain they have minimal airtime more than men. They also

considered airtime to be relative to fulfilment of household responsibilities where less money means less airtime or no airtime depending on how much money is at their disposal

5.3 MIXED METHODS ANALYSIS: COMMONALITIES AND DIFFERENCE IN QUANTITATIVE AND QUALITATIVE RESULTS FOR GENDER-BASED ANALYSIS OF ICT ADOPTION AND USAGE

It is important for the researcher to present this mixed methods analysis on the basis of the dynamics (economic, educational, legislative and socio-cultural) presented in Chapter 3 on the basis that it is within this premise that the gender-based analysis was structured. The preceding sections 5.1 & 5.2 presented the results as per the order with which they were presented in the results chapter and without aggregation. In this chapter it is the intent of the researcher to link the findings from sections 5.1 & 5.2 in order to thoroughly analyse gender as structured through the theoretical framework.

5.3.1 Economic Factors Influencing Adoption and Usage

In both quantitative and qualitative results, being poor, less literate, age and living in a rural area and not gender meant that the participants had less access to cell phones and used less of other ICT's. The results were conclusive to determine that income and location play an influential role to determine level of adoption and usage.

More females than males were observed to have airtime. Making calls is subject to having airtime and therefore limits how participants communicate relative to the airtime they have on the devices. Perhaps it could be argued that it is the compounding challenges that women face that compels them to

want to have access to ICT's and also to strive more than men, to obtain airtime.

Because female-headed households were observed to be prevalent, females were likely to acquire their phones and therefore determine the usage patterns on the basis of the need to communicate by purchasing airtime in smallest quantities, i.e. R5, 00. Gilwald et al., 2010 also corroborate this finding. Further, across all FGD's, security, household logistics and children matters commonly influenced female ICT usage patterns.

Across all FGD's as was the case with the quantitative results, cost, or income was the primary inhibitor to adoption and usage of mobile phones. The FGD's singled out the high call tariffs associated with making calls as the reason why some don't have access to ICT's. Therefore users devised various adaptation strategies to circumvent high telecommunications cost, such as to have more than one SIM card, each from a different network service provider while some also had a landline installed over and above the different network service providers; and participants claimed to interchangeably use all in order to limit the high expenditure needed to communicate.

Please Call Me' and 'Missed Calls' are considered more economical ways of communicating in South Africa and are usually directed to individuals who are perceived to be financially better and therefore in a better position to call back. This was evident in all FGD's and employed individuals were most likely to receive 'Please Call Me' and 'Missed Calls' than unemployed people.

Another interesting finding is that females claimed that expenditure on phone usage impacted on their household and food budget yet they continued to spend on phone consumption—reiterating the importance that to communicate is critical for survival, especially for women. It could be further argued that because female's income is most likely to be lower and subjected to broader responsibilities than male's income,

they therefore use money relative to household responsibilities and limit ICT spend to basic communication needs while sacrificing the adventurous technology spend.

Rurality played an important role in influencing adoption and usage. Rural areas are less resourced and barely have economic activities to encourage residents to have disposable income to spend on ICT's. Instead rural residents, who also happen to be a majority female, are pre-occupied with family priorities such as food, health and well being of their households. Although there was an indication from the rural FGD's that females tend to have more phones than males and tend to have some airtime in contrast to their male counterparts, the research was not conclusive in ascertaining this indication. Further studies could investigate this area of research further by investigating location of individuals and households versus gender and adopting patterns.

Furthermore, rural areas have less communication alternatives for residents meaning that the most common form of connectivity is mobile technologies. Landline telephone infrastructure and the Internet was almost none-existent in rural areas meaning that rural residents in SA are likely to lag far behind in adoption of the information society concept of development and economic participation.

By virtue of females being the majority of residents in rural areas means that they, and their families are likely to be impacted negatively by this challenge.

5.3.2 Education as a Factor Influencing Adoption and Usage of ICT's

It is equally noteworthy to state that in terms of illiteracy, since it influences adoption patterns of ICT's that Africa has the highest illiteracy rate (ECA, 2006); and according to the South African Presidency report on Millennium Development Goals, the Gender Parity Index (GPI) claims that it is males in the 15 to 24 ages that are more likely than females to attend education

institutions (RSA, 2007). Gilwald et al. (2010) found that 10.3% of all females surveyed cannot write a letter in contrast to 9.8% of males. 0.2% of females to 14.1% males had the highest education as a Tertiary institution (Gilwald et al., 2010). It goes without saying therefore that females are more likely to be less literate than males. Education as per the quantitative results influenced ownership of mobile phones.

e-Skills is an important factor and or inhibitor to owning and using ICT gadgets such as a mobile phone. Having the knowledge to use a mobile phone can greatly improve one's ability to access opportunities; not having appropriate know-how will have a negative impact in adoption and usage, especially when one considers that 55.3% of South Africans stated that using a mobile phone helps them to find jobs (Schmidt et al., 2008). More disturbing is the claim by Schmidt et al. that the probability of having e-skills is greatly reduced for females in South Africa, and that rural households are more prone to be less-equipped with e-skills (Schmidt et al., 2008).

5.3.3 Age as a Factor Influencing Adoption and Usage of ICT's

Age was discovered to be a factor in both qualitative and quantitative results; being young means more likelihood to own and better use ICT's. Younger generations tended to have more advanced phones and understood better how to use ICT's than older generations.

The many factors that compound female-headed households qualify the argument that at household level, female-headed households are most likely not to have mobile phones only as a result of other factors. Gilwald et al. also agree that factors such as social status, economic status, location of household and education can become barriers for female probability to own ICT's (Gilwald et al., 2010).

Despite the confessions made by males on pre-conditions, the researcher could not conclusively establish that the males control whom their partners

call because they bought the phones or airtime. Further research studies are required to delve deeper in order to understand the extent to which conditions exist that influence usage patterns for women in cases where they receive phones or airtime from their spouses.

In summary, affordability was conclusively identified as the dominant factor influencing adoption and usage. Further, proximity to urban environments exposes individuals to better access to ICT's and all relevant information to assist adoption.

5.3.4 Culture as a Factor Influencing Adoption and Usage of ICT's

The confession by males to have given away phones and or bought airtime for females may be attributed to the cultural expectations associated with male dominance. Sometimes, it is the women that innocently perpetuate this behaviour.

According to the Male FGD's and the multi-sex FGD, there seemed to be a general expectation by males that it was their responsibility to support the use of their spouse or girlfriend communication patterns by buying airtime and sometimes the mobile handsets. Some males interpreted this to mean that they will otherwise lose their girlfriends should they not be able to support their usage. Some of the male participants sacrificed their ability to own mobile phones or to buy airtime in order to satisfy their partners.

Social norms and cultural barriers have long suppressed females and their active participation in society, and this is true to both female and male-headed household in that the trend is independent of household headship. Females as individual members of society have been discriminated against for centuries and the stigma continues to this day in the name of 'culture.'

According to Bentley et al. (2005), embedded in normality of African culture is the demand for women's preoccupation with domestic prerogatives that inherently impact negatively to their active participation in economic activities, '*the more a culture requires or expects of women in the domestic sphere, the*

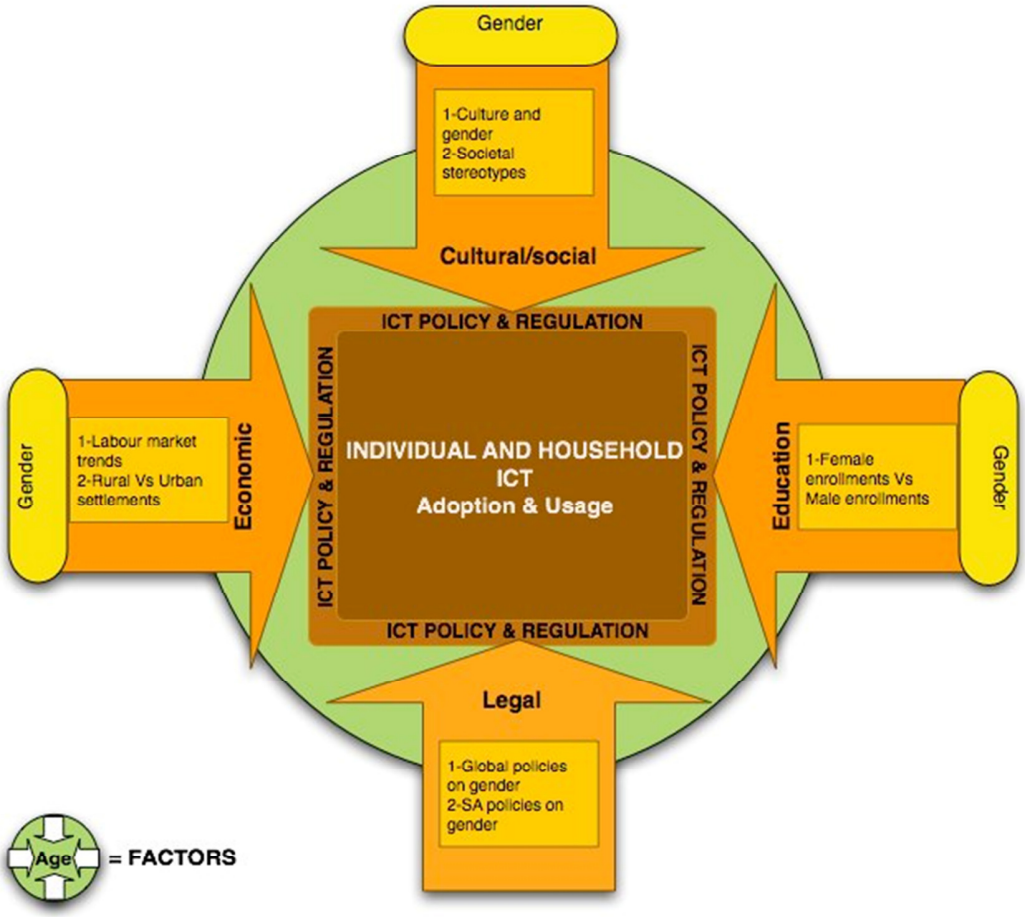
less opportunity they have of achieving equality with men in either sphere,' (Bentley et al., 2005, p. 3).

In SA, cultural practices are protected by the highest piece of legislation as much as equality of citizens is, but the same piece of legislation does not translate to influence equality at household level-where culture is likely to be contextualised and manipulated to impact negatively on females.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

". . .Given that gender is a socially constructed, we must examine and aim to change the social relations which construct it . . ." (a quote by Ginwala from Bentley, 2003).

The following diagram represents a more sophisticated conceptualisation of the framework on gender-based analysis of ICT access and usage presented in the literature review chapter. It has been formulated, based on the evidence collected in this study.



Given the existing gender disparities in income and education and the location of a large proportion of the female population in rural areas, the analysis found that females are disadvantaged with respect to broad ICT access and usage beyond mobile voice communications. The contribution of ICT to development should not be seen as an "all-or-nothing" approach. While ICT adoption cannot on its own address the broad challenges of socio-economic development, gender-based policy and regulation is necessary to unlock heightened ICT usage by women as a contributing factor to development.

The following conclusions are pertinent:

6.1.1 Ownership of Mobile Phones

The revised conceptual framework presented above suggests a different picture from where the research departed. The results suggest that although gender in the context of the legal and policy environment has been progressive, it has failed to cut across other areas of SA institutions that have an impact of how individuals and household adopt ICT's. The new framework suggest that gender disparities are still evident in all dynamics except the Legal while age is also has also emerged as a dominant influencing factor on adoption and usage of ICT's.

Female dominance of mobile phone ownership was observed in both qualitative and quantitative results, and also supports the findings by Gilwald et al. (2010) that being a female in South Africa increases the probability to own a mobile phone (Gilwald et al., 2010). It could be argued that females are more likely to own a mobile phone because they are likely to get phones from family members and spouses as suggested in the previous chapter.

Based on the FGD findings, it is also possible to suggest that the reason for less adoption of mobile phones by males was that they are more likely to give

away their mobile and or buy airtime for their spouses, girlfriends, children and siblings. There was a sense of communal ownership and use of mobile phones in households, between family members and friends, and this behaviour was evidenced in both urban and rural environments. Again gender was not significant in determining who shares their phone but the solidarity to share with those that cannot afford their own mobile phones. It is a possibility that males sacrifice the right to own ICT's because of this communal ownership approach.

At household level, the research results could not conclusively find out that households headed by females are significantly disadvantaged than males. Although the Mann Whitney U test suggested that the female headed households had less share percentage of mobile phones than MHHH, further investigation revealed that the FHHH variable was insignificant more so than the income variable

The literature review presented in this report suggests that females play a subordinate role in many facets of SA life thereby subjecting them to male-dominated dictatorship to control and access to resources such as ICT's (Venter et al., 2006).

There was no conclusive evidence that adoption of ICT's is in fact influenced by gender other than the historic dominance of males in education, socio-cultural and economic factors that by virtue allowed males to enjoy greater privileges than females.

It is however a given that gender discrimination is not only an injustice to females; it creates barriers for economic development of a country where females are a majority (Epstein et al., 2007). SA has done well to enact legal and policy frameworks to circumvent among other things inequalities inherent in our society. But more need to be done to ensure that policy translates to a regulatory regime that is capacitated to address the other barriers that ultimately influence adoption and usage of ICT's by females.

The affordability and the cost to communicate have long been identified as barriers for realisation of an information society and will also determine how South Africans adopt and use ICT's considering that a majority of our citizens are poor.

6.1.2 Economic Factors Influencing Adoption and Usage

South African population between the ages of 15 and 65 years had no income (USAASA, 2009/2010). This clearly has an impact on consumption patterns of ICT's. As a result South Africans, both male and female, devise strategies to circumvent the high costs associated with ICT's. This report highlights a disjuncture between the price of services and affordability. The fact that cost to communicate is high suggested that the regulatory and policy environment are not properly functioning.

These said females tend to have an averagely lower income than males (Chabossou et al. 2008). This is also true for female-headed household based on the argument that they have other priorities that compromise spend on ICT's. '*Income increases the probability of mobile phone adoption,'* (Chabossou et al. 2008)even though expenditure is not influenced by this as claimed by Chabossou et al. (2008). The findings by Chabossou regarding probability as influenced by income are consistent with the findings of this report in relation to income and its influence to ownership of mobile phones even at household level.

People without income, irrespective of gender are likely to be constrained in their ability to spend money to purchase or spend on mobile phones. Females in both male and female-headed households are likely to be exposed to the same individual challenges prevalent in society perhaps at a more intense level than males. Income, education and employment increase the probability to own ICT's and therefore where income, education and employment are equal between males and females, there is no significant difference in access to ICT's (Gilwald et al, 2010).

Another study looking at trade liberalisation in SA and how it affects males and females differently found that trade reforms for high-end income household were similar irrespective of gender (DTS, 2006).

Suffice it to say that high income increases the chances of being ICT literate (Schmidt et al., 2008). Any form of income will increase the chances of ownership of mobile phones and or other ICT media. Households with some income may stand a better probability to have a higher percentage of mobile ownership therefore t is more an economic barrier than a gender that impacts on adoption and usage of ICT's.1

Employment is a proxy for income yet females are likely to become housewives or are condemned to earn less than their male counterparts or even do unpaid work meaning that the probability for them to have disposable income is more limited than that of males

By virtue of females being subjected to repressive customary laws, they are more likely to live in rural areas, and therefore less income generating opportunities, gender becomes indirectly influential on the basis that ICT consumption largely depends on income—or rather, income influences adoption and usage.

At household level, it is important to allow equal access to household resources by all members of the household irrespective of gender in order to derive family, societal and economic gains offered at national level—the results suggested that control of ICT's at household level was driven more by an economic need to regulate abuse but not gender based.

Being female increases the likelihood of ownership of a mobile phone in SA. FGD's revealed that females almost always had mobile phones donated to them by other family members likely to be males. Further studies must be conducted to conclusively determine the reasons for females being more likely to own mobile phones than males.

Investment in further infrastructure for rural areas stands to benefit both

industry and rural communities (Gasmi, F., Ivaldi, M. and Vitro, L. R., 2007). While only a minority of total population lives in urban areas; ICT's in developing countries such as SA are inversely concentrated in urban areas, (Hafkin, 2002). The results were conclusive in determining the role of location in adoption; individuals in rural areas were less likely to own ICT's and coincidentally, females are most represented in these rural areas.

6.1.3 Education as a Factor Influencing Adoption and Usage of ICT's

Education in SA is divided along social lines and therefore it goes without saying that females are more likely to be on the receiving end of lesser access to education facilities as presented in the literature review. Further, income influences education as much as age and culture. The ICT policy and regulatory environments need to be adaptable to address equitable education access for South Africans if we are to realise the ISAD Plan as committed to by the country. ICT policy and regulation needs to influence be informed by the education institutions as means to ensure that ICT's are equitably integrated into our society.

6.1.4 Age as a Factor Influencing Adoption and Usage of ICT's

Age as a factor was not a key focus of this research report although some quantitative tests used the age variable to determine whether it significantly influences adoption and usage. It appears that in both quantitative and qualitative results, age plays a significant role. In fact, the younger an individual the more likely they are to adopt and use ICT's irrespective of gender. One may conclude that a young individual is more likely to have access to education given the new SA political dispensation that affords all individuals an opportunity to attend school. Further, despite the evidence presented regarding discrimination of females at academic institutions, younger ages suggest that gender, as a barrier to education is no longer as influential in younger generations than it was 10 or 20 years ago. This

suggests that if individuals can be afforded equal access to education facilities, females will be as competent as males in attaining high levels of education thereby increasing their chances to adopt and use ICT for their benefit as well as that of the information society.

Further research in the area of ICT policy and regulation can assist policy makers to better understand the symbiotic relation between ICT adoption and usage and education. Currently, there seems to be a silo-mentality approach to how the ICT policy influences individuals in the education sector to adopt and use ICT's.

6.1.5 Culture as a Factor Influencing Adoption and Usage of ICT's

A sound legislative environment that is grounded on fundamental gender equality principles does not automatically translate to positive results and requires constant monitoring and evaluation to ensure that females are not disadvantaged because of their economic status, customary and marital obligations as is the case. Constant monitoring and evaluation is important.

Because gender was insignificant in all but one quantitative research results alludes to the shift from gender to economic-based disparities. Income, location, education and literacy all are factors that influence adoption. By virtue, females are most-affected based on SA demographics, i.e. majority of population is female and mostly lives in rural areas; there is a rise of single-headed households in SA and socio-cultural dimensions impact negatively on females in SA.

The fact that SA has transgressed so much in terms of engendering legislation, policy and regulation does not automatically translate to mean females are exposed to equal opportunities. It is the recommendation of the researcher that the regulator (ICASA) must adopt an all-inclusive crosscutting regulatory regime that incorporates other economic, educational and socio-

economic factors that are evidently impacting on how females adopt and use ICT's.

6.2 RECOMMENDATIONS FOR POLICY AND REGULATION

The conclusions drawn above and the responses posed to these conclusions, lead to the following recommendations for the consideration of policy-makers across the communications, education and other socio-economic development sectors. Many of these recommendations should also receive the attention of the ICT sector regulator.

The increased adoption and usage of ICT would have wide-ranging implications for several aspects of socio-economic development and change in South African society. The recommendations to policy-makers are therefore directed to key areas for policy-makers in the communications and education ministries and in the broad social cluster of government which includes a multiplicity of ministries. The recommendations are listed in a hierarchy of importance, on the understanding that the foundations need to be put in place for ICT to contribute to broader development priorities.

Future models of ICT adoption and usage

If broadband network infrastructure and services is an important foundation for participation in the 21st century information society, then policy-making and regulation must specifically target women in terms of facilitating their access to, adoption and usage of broadband technologies and services, beyond mobile voice communications. This will require further evidence-based research in order to clearly and explicitly set out a set of strategic policy directions, which can then be supported by regulation.

Geography of distance and implications for access and usage

Building on the first recommendation, intergovernmental collaboration and financing strategies will be needed to promote broadband access in rural

areas in ways that do not continue the exclusion of women found in this study. Such forward-looking policy and regulation can create the foundations for community access to broadband infrastructure and services that are inclusive of women as participants in the evolution of an information society.

Reducing the gender gap in education and broadening the space for human rights and social mobility

The recommendations above are important, not for their own sake, or merely for the sake of promoting women's access to ICT. Broadband access and usage enables societies and communities to access a wide range of services that are necessary for human rights, human development and social mobility. Amongst these developmental concerns, the utilisation of broadband technologies to dramatically enhance access to educational content, through for example, access to knowledge available on the Internet, in e-books and other electronic resources, can all be enhanced by effective policy and regulation, both in the communications mandate area and in the education mandate area.

Education is a necessary foundation for promoting human rights and social mobility. Hence, ICT adoption and usage in the education environment, from basic through secondary and tertiary education, can lay the basis for the better enjoyment of human rights and for social mobility for future generations of South Africans. ICT and education policy and ICT regulation can support these objectives. Collaborative policy making is therefore necessary as between the education and communications ministries.

Political, economic and social freedom

Finally, where policy and regulation explicitly engenders ICT adoption and usage, it can also indirectly lay the foundations for the greater participation of women in politics, the economy and society, thus enabling women to recognise their political, economic and social freedoms.

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Appendix A: Survey Questionnaire

Admin

1. COUNTRY NAME - [a.1]

 1. [_] - [1] Benin

 2. [_] - [2] Botswana

 3. [_] - [3] Burkina Faso

 4. [_] - [4] Cameroon

 5. [_] - [5] Cote d'Ivoire

 6. [_] - [7] Ethiopia

 7. [_] - [8] Ghana

 8. [_] - [9] Kenya

 9. [_] - [11] Mozambique

 10. [_] - [12] Namibia

 11. [_] - [13] Nigeria

 12. [_] - [14] Rwanda

 13. [_] - [15] Senegal

 14. [_] - [16] South Africa

 15. [_] - [17] Tanzania

 16. [_] - [18] Uganda

 17. [_] - [19] Zambia

2. SURVEY LOCATION - [a.2]

 1. [_] - [1] Major Urban

 2. [_] - [2] Other Urban

 3. [_] - [3] Rural

3. EA NUMBER (SELECTED CLUSTER NUMBER) - [a.3]

4. HOUSEHOLD NUMBER (Listing ID from Map) - [a.4]

5. Interviewer / Enumerator ID - [a.5]

6. OBSERVATION please describe the type of house the respondent lives in. [RECORD OBSERVATION]: - [a.6]

1. [_] - [1] Permanent formal structure
2. [_] - [2] Permanent informal structure
3. [_] - [3] Traditional structure
4. [_] - [4] Temporary structure

7. OBSERVATION What type of roofing material is used in main house? - [a.7]

1. [_] - [1] Plastic sheets, or branches and twigs
2. [_] - [2] Grass

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3. [_] - [3] Stone or slate
4. [_] - [4] Iron sheets
5. [_] - [5] Brick tiles
6. [_] - [6] Concrete

8. OBSERVATION. What type of exterior walls does the dwelling have? - [a.8]

1. [_] - [1] Plastic sheets, or branches and twigs
2. [_] - [2] Brick or stone with mud
3. [_] - [3] Brick or stone with cement plaster
4. [_] - [4] Timber
5. [_] - [5] Mud walls
6. [_] - [6] Iron sheets
7. [_] - [7] Sandcrete Blocks

9. OBSERVATION What type of flooring does the dwelling have? - [a.9]

1. [_] - [1] Dirt
2. [_] - [2] Wood

3. [_] - [3] Cement

4. [_] - [4] Cement with additional covering

10. OBSERVATION What is the observed structural condition of main dwelling? - [a.10]

1. [_] - [1] Seriously dilapidated

2. [_] - [2] Need for major repairs

3. [_] - [3] Sound structure

11. Date - [a.11]

12. Time - [a.12]

13. GPS Position - [GPS]

14. Signature of enumerator - [a.13]

HH Rooster (to be completed for each household member)

1. Name - [name]

2. Has ${name}$ lived under this roof for more than 15 days out of the last 12 months? - [d.1]

1. [_] - [1] yes

2. [_] - [2] no

3. Has ${name}$ lived under this roof for more than 15 days out of the last 30 days? - [d.2]

1. [_] - [1] yes

2. [_] - [2] no

4. Is ${name}$ male or female? - [d.3]

1. [_] - [1] Male

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2. [_] - [2] Female

5. How old was ${name}$ on his/her last birthday? - [d.4]

6. How is ${name}$ related to the household head? - [d.5]

1. [_] - [1] head of hh
2. [_] - [2] spouse /partner
3. [_] - [3] son or daughter
4. [_] - [4] son or daughter-in-law
5. [_] - [5] grandchild
6. [_] - [6] parent
7. [_] - [7] parent-in-law
8. [_] - [8] brother or sister
9. [_] - [12] bother / sister in law
10. [_] - [9] adopted/foster child
11. [_] - [10] other relative
12. [_] - [11] not related

7. What is the marital status of ${name}$? (only ask if 16 years or older) - [d.6]

1. [_] - [1] currently married
2. [_] - [2] cohabitate
3. [_] - [3] single
4. [_] - [4] widowed
5. [_] - [5] divorced
6. [_] - [6] separated

8. What is the highest level of schooling completed by ${name}$? - [d.7]

1. [_] - [1] none
2. [_] - [8] remedial
3. [_] - [6] traditional
4. [_] - [2] pre-school
5. [_] - [3] primary
6. [_] - [4] secondary

7. [_] - [5] tertiary: BSc/BA

8. [_] - [9] tertiary: Masters

9. [_] - [10] tertiary: PhD

10. [_] - [7] vocational

9. What was ${name}$ main activity during last 6 months? - [d.98]

1. [_] - [1] below school age

2. [_] - [2] full time scholar/ student / pupil

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3. [_] - [3] housewife / unpaid work

4. [_] - [4] retired / pensioner

5. [_] - [5] unemployed

6. [_] - [6] disabled cannot work

7. [_] - [7] employed û all year: full time: full time

8. [_] - [8] employed û all year: part-time

9. [_] - [9] employed: occasional/seasonally

10. [_] - [13] self-employed û all year: full time

11. [_] - [14] self-employed û all year: part-time

12. [_] - [15] self-employed û occasional/seasonally

10. WHAT DOES ${name}$ EARN EVERY MONTH IN TERMS OF SALARY OR WAGE? (estimate in local currency, numbers

only) - [d.9]

INFO: (home pay, i.e. net pay and add up payments that are made on a daily weekly or biweekly basis)

11. WHAT DOES ${name}$ EARN EVERY MONTH IN TERMS OF SELF EMPLOYMENT INCOME AND PROPERTY INCOME OR

INCOME FROM AGRICULTURAL PRODUCE AND FARMING? (estimate in local currency, numbers only) - [d.10]

INFO: Income not turnover or sales!)

12. WHAT DOES ${name}$ EARN EVERY MONTH IN TERMS OF PENSION, TRANSFER INCOME & SCHOLARSHIPS?

(estimate in local currency, numbers only) - [d.11]

13. Does ${name}$ have an Email Address? - [d.12]

1. [_] - [1] yes
2. [_] - [2] no
3. [_] - [3] don't know

14. Does ${name}$ have a mobile phone or active SIM card? - [d.13]

1. [_] - [1] yes
2. [_] - [2] no
3. [_] - [3] don't know

Household attributes

1. How much does the household spend on bills in a month? (Rent, water, electricity, food, school fees etc.: estimate in

local currency, numbers only) - [w.1]

2. Does this house have ELECTRICITY? (multiple response) - [w.2]

1. [_] - [w.2_1] No
2. [_] - [w.2_2] Main Electricity Grid: Monthly bills
3. [_] - [w.2_3] Main Electricity Grid: Pre-paid
4. [_] - [w.2_4] Generator
5. [_] - [w.2_5] Solar
6. [_] - [w.2_6] Other

3. Does your household have a working...? - [w.3]

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1. [_]Yes [_]No REFRIGERATOR

2. [_]Yes [_]No ELECTRIC or Gas COOKER /STOVE

3. [_]Yes [_]No RADIO

4. [_]Yes [_]No TELEVISION SET

5. [_]Yes [_]No VCR/ DVD

6. [_]Yes [_]No COMPUTER (Desktop/Laptop)

7. [_]Yes [_]No PRINTER

8. [_]Yes [_]No SCANNER

4. Does this household have a postal address? - [w.4]

1. [_] - [w.4_1] No

2. [_] - [w.4_2] Personal family box

3. [_] - [w.4_3] Communal box

4. [_] - [w.4_4] At work place

5. [_] - [w.4_5] Street address

6. [_] - [w.4_6] Local shop/school

7. [_] - [w.4_7] Other

5. Does anybody in this household have a bank account or has access to one in any other way? - [w.5]

1. [_] - [1] yes, at least one household member has a own bank account

2. [_] - [2] yes, through work

3. [_] - [3] yes, through someone else

4. [_] - [4] no

6. Does this household have a working Internet connection? - [w.6]

1. [_] - [1] yes

2. [_] - [2] no

7. What type of internet connection is this - [w.7]

1. [_] - [1] modem dial-up

2. [_] - [2] ISDN dial-up

3. [_] - [3] ADSL

4. [_] - [4] leased line

5. [_] - [5] wireless

6. [_] - [6] using mobile phone

7. [_] - [7] other

8. Could you tell me how much is spend monthly for the INTERNET (subscription and use)? - [w.8]

9. Do you ever let anybody outside the household use the INTERNET at your home? - [w.9]

1. [_] - [1] Yes

2. [_] - [2] No

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10. Do you ever charge anybody for the usage of the INTERNET? - [w.10]

1. [_] - [1] Yes

2. [_] - [2] No

11. How frequently is this Internet used for work/income generating activities - [w.12]

1. [_] - [1] Never

2. [_] - [2] Seldom

3. [_] - [3] Frequently

4. [_] - [4] Always

Fixed-line Telephone

1. Do you have a working Fixed-line TELEPHONE at your home? - [h.1]

1. [_] - [4] Yes

2. [_] - [3] No

2. In what year did you get the Fixed-line TELEPHONE? - [h.2]

3. What billing type is it? - [h.3]

1. [_] - [1] Monthly billing

2. [_] - [2] Pre-paid

3. [_] - [3] Combination of both

4. Could you tell me how much you spent on your Fixed-line TELEPHONE last month (charges and line rental)? - [h.4]

5. Do you deliberately plan calls during off-peak times to save on the cost of calls? - [h.5]

1. [_] - [1] yes

2. [_] - [2] no

6. Do you deliberately avoid calling mobile phones to save on the cost of calls? - [h.6]

1. [_] - [1] yes

2. [_] - [2] no

7. Can any family member in the household use the Fixed-line TELEPHONE if they want to? - [h.7]

1. [_] - [1] yes

2. [_] - [2] no

8. Who uses the Fixed-line TELEPHONE most? - [h.8]

1. [_] - [1] head

2. [_] - [2] wife / husband

3. [_] - [3] own child or grandchild

4. [_] - [4] other relative

5. [_] - [5] other non-relative

9. How frequently is the Fixed-line TELEPHONE being used for work/income generating activities - [h.9]

1. [_] - [1] Never

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2. [_] - [2] Seldom

3. [_] - [3] Frequently

4. [_] - [4] Always

10. Do you charge other people to use the Fixed-line TELEPHONE? - [h.10]

1. [_] - [1] yes

2. [_] - [2] no

11. Is the current cost of local calls to a fixed-line phone during peak time...? - [h.11]

1. [_] - [4] very low

2. [_] - [1] low

3. [_] - [2] ok

4. [_] - [5] high

5. [_] - [3] very high

12. Is the current cost of calls to mobile phones during peak time? - [h.12]

1. [_] - [4] very low

2. [_] - [1] low

3. [_] - [2] ok

4. [_] - [3] high

5. [_] - [5] very high

13. Is the current cost of the monthly line rental of your Fixed-line TELEPHONE (monthly subscription)? - [h.13]

1. [_] - [4] very low

2. [_] - [1] low

3. [_] - [2] ok

4. [_] - [3] high

5. [_] - [5] very high

No Fixed line

1. Have you previously had a Fixed-line TELEPHONE? - [h.14]

1. [_] - [1] yes

2. [_] - [2] no

2. Why are you no longer having that service? - [h.15]

3. Have you ever applied for a Fixed-line TELEPHONE and never received it? - [h.16]

1. [_] - [1] yes

2. [_] - [2] no

4. Which of the costs (fees and charges), would have to decrease for you to consider applying for a Fixed-line

TELEPHONE? - [h.16a]

1. [_] - [h.16a_1] CONNECTION FEE

2. [_] - [h.16a_2] MONTHLY RENTAL

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3. [_] - [h.16a_3] HANDSET

4. [_] - [h.16a_4] CALLS

5. [_] - [h.16a_5] None

5. What type of billing would you prefer? - [h.17]

1. [_] - [1] Pre-paid (Zero monthly subscription & higher call rates)

2. [_] - [2] Monthly billing (monthly subscription & lower call rates

3. [_] - [3] Don't want household phone

6. Why do you prefer Pre-paid ? (multiple response) - [h.18]

1. [_] - [h.18_1] It is enough for me to be reachable, I would not make any calls anyway

2. [_] - [h.18_2] I hardly make any calls

3. [_] - [h.18_3] I don’t want to commit to a monthly subscription since I don’t know whether I can afford it in

following months

4. [_] - [h.18_4] Having the option to connect to the Internet from home is important to me

5. [_] - [h.18_5] Fixed call rates are cheaper than mobile rates

6. [_] - [h.18_6] Other

7. Why do you prefer Monthly billing? (multiple response) - [h.19]

1. [_] - [h.19_1] I usually call a lot and cheaper call rates are important

2. [_] - [h.19_2] Having the option to connect to the Internet from home is important to me

3. [_] - [h.19_3] Fixed call rates are cheaper than mobile rates

4. [_] - [h.19_4] I don’t like to have to recharge my phone account all the time

5. [_] - [h.19_5] Other

8. Why don’t you like neither? (multiple response) - [h.20]

1. [_] - [h.20_1] Our household does not need a fixed line phone since we use mobiles

2. [_] - [h.20_2] Fixed phones are not available in our region

3. [_] - [h.20_3] The operator would not provide us with them anyway because we do not have regular

income

4. [_] - [h.20_4] Too long wait for a fixed line

5. [_] - [h.20_5] Other

9. Use Payment Ladder A and follow instructions: Highest Yes - [h.21]

10. Use Payment Ladder A and follow instructions: Lowest No - [h.22]

Household Receiving Money

1. Does anyone send money to this household? - [z.1]

1. [_] - [1] yes, monthly

2. [_] - [2] yes, two or three times a year

3. [_] - [4] yes, annually

4. [_] - [5] yes, on special occasions

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5. [_] - [3] never

2. Where is that person working? - [z.2]

1. [_] - [1] another village or city

2. [_] - [2] abroad (out the country)

3. [_] - [3] other

3. How much money does the household receive on average? - [z.3]

4. How (what channel) do they normally send money? - [z.4]

1. [_] - [z.4_1] bring it home in person

2. [_] - [z.4_2] by another relative

3. [_] - [z.4_3] by a neighbour

4. [_] - [z.4_4] by bus driver or stranger

5. [_] - [z.4_5] through a merchant

6. [_] - [z.4_6] through a bank account

7. [_] - [z.4_7] through Western Union / Moneygram / Foreign exchange bureau

8. [_] - [z.4_8] through the post office

9. [_] - [z.4_9] other

5. How long does it take for the money to get to you on average? - [z.5]

1. [_] - [1] Immediately (1 day)

2. [_] - [2] In 2-7 days

3. [_] - [3] more than a week

4. [_] - [5] more than a month

5. [_] - [4] never received money

6. How are you being informed when money is sent? - [z.6]

1. [_] - [z.6_1] email

2. [_] - [z.6_2] call from mobile phone

3. [_] - [z.6_3] call from a fixed line phone

4. [_] - [z.6_4] call from a public phone

5. [_] - [z.6_5] I am not being informed in advance

6. [_] - [z.6_6] other

7. Did you use the money for something special or did it just get added to the household expense? - [z.7]

1. [_] - [1] something special

2. [_] - [2] household expenses

3. [_] - [3] I don't know

Household Sending Money

1. Does this household send money to another household? - [y.1]

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1. [_] - [1] yes, monthly

2. [_] - [2] yes, two or three times a year

3. [_] - [3] yes, annually

4. [_] - [4] yes, on special occasions

5. [_] - [5] never

2. Where is that household? - [y.2]

1. [_] - [1] another village or city

2. [_] - [2] abroad (out the country)

3. [_] - [3] other

3. How much did you last send? - [y.3]

4. How (what channel) do you normally send money? - [y.4]

1. [_] - [y.4_1] Bring it home in person

2. [_] - [y.4_2] By another relative

3. [_] - [y.4_3] By a neighbour

4. [_] - [y.4_4] By bus driver or stranger

5. [_] - [y.4_5] Through a merchant

6. [_] - [y.4_6] Through a bank account

7. [_] - [y.4_7] Through Western Union / Moneygram / Foreign exchange bureau

8. [_] - [y.4_8] Through the post office

9. [_] - [y.4_9] Other

5. The last time you sent money how long did the money take to get to them? - [y.5]

1. [_] - [1] Immediately (1 day)

2. [_] - [2] In 2-7 days

3. [_] - [3] more than a week

4. [_] - [4] more than a month

5. [_] - [5] never got there

6. How did you inform the receiver about the money sent? - [y.6]

1. [_] - [y.6_1] email

2. [_] - [y.6_2] call from mobile phone

3. [_] - [y.6_3] call from a fixed line phone

4. [_] - [y.6_4] call from a public phone

5. [_] - [y.6_5] I did not inform that person

6. [_] - [y.6_6] other

7. Do you know what the money was used for by the receiver? - [y.9]

1. [_] - [1] it was used for something special

2. [_] - [2] it was added to the household expenses

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3. [_] - [3] I don't know

Randomly Selected Individual

1. Please list names of all household members and visitors that will sleep in this dwelling

tonight and that are 16 years

of age or older? - [CensusDef]

2. Randomly selected person in list - [random]

3. Name of randomly selected individual: - [c.2]

4. Are you a household member or a visitor? - [c.3]

1. [_] - [1] household member

2. [_] - [2] visitor

5. Did you live under this roof for more than 15 days out of the last 12 months? - [c.4

1. [_] - [1] yes

2. [_] - [2] no

6. Did you live under this roof for more than 15 days out of the last 30 days? - [c.5]

1. [_] - [1] yes

2. [_] - [2] no

7. Are you male or female? - [c.6]

1. [_] - [1] Male

2. [_] - [2] Female

8. How old were you on your last birthday? - [c.7]

9. How are you related to the household head? - [c.8]

1. [_] - [1] head of hh

2. [_] - [2] spouse /partner

3. [_] - [3] son or daughter

4. [_] - [4] son or daughter-in-law

5. [_] - [5] grandchild

6. [_] - [6] parent

7. [_] - [7] parent-in-law

8. [_] - [8] brother or sister

9. [_] - [9] adopted/foster child

10. [_] - [10] other relative

11. [_] - [11] not related

10. What is your marital status? - [c.9]

1. [_] - [1] currently married

2. [_] - [2] cohabitate

3. [_] - [3] single

4. [_] - [4] widowed

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5. [_] - [5] divorced

6. [_] - [6] separated

11. WHAT IS your HIGHEST LEVEL OF Education - [c.10]

1. [_] - [1] none

2. [_] - [8] remedial

3. [_] - [6] traditional

4. [_] - [2] pre-school

5. [_] - [3] primary

6. [_] - [4] secondary

7. [_] - [5] tertiary: BSc/BA

8. [_] - [9] tertiary: Masters

9. [_] - [10] tertiary: PhD

10. [_] - [7] vocational

12. What was your main activity during last 6 months? - [c.11]

1. [_] - [1] below school age

2. [_] - [2] full time scholar/ student / pupil

3. [_] - [3] housewife / unpaid work

4. [_] - [4] retired / pensioner

5. [_] - [5] unemployed

6. [_] - [6] disabled cannot work

7. [_] - [7] employed all year: full time

8. [_] - [8] employed all year: part-time

9. [_] - [9] employed occasional/seasonally

10. [_] - [13] self-employed û all year: full time

11. [_] - [14] self-employed û all year: part-time

12. [_] - [15] self-employed û occasional/seasonally

13. WHAT DO you EARN EVERY MONTH IN TERMS OF SALARY OR WAGE? (estimate in local currency, numbers only) - [c.

12]

14. WHAT DO you EARN EVERY MONTH IN TERMS OF SELF EMPLOYMENT INCOME AND PROPERTY INCOME OR

INCOME FROM AGRICULTURAL PRODUCE AND FARMING? (estimate in local currency, numbers only) - [c.13]

15. WHAT DO you EARN EVERY MONTH IN TERMS OF PENSION, TRANSFER INCOME & SCHOLARSHIPS? (estimate in

local currency, numbers only) - [c.14]

Individual Information

1. How much money do you have for your free disposal each month (you can spend without consulting anyone)? - [i.

1]

2. How much do you contribute to household expenses every month? - [i.2]

3. During the last 30 days, for how many days did you not have enough to eat everyday? - [i.3]

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4. Can you read a letter or newspaper? - [i.4]

1. [_] - [1] easily
2. [_] - [2] with difficulty
3. [_] - [3] not at all

5. Can You Write a letter? - [i.5]

1. [_] - [1] easily
2. [_] - [2] with difficulty
3. [_] - [3] not at all

6. What is the main household language: - [i.6]

7. Which of the following languages other than the household language do you speak? (multiple response) - [i.7]

1. [_] - [i.7_1] English
2. [_] - [i.7_2] French
3. [_] - [i.7_3] Portuguese
4. [_] - [i.7_4] Arabic
5. [_] - [i.7_5] Swahili
6. [_] - [i.7_6] Afrikaans
7. [_] - [i.7_7] German

8. In which of the following languages other than the household language can you read and write easily? (multiple

response) - [i.8]

1. [_] - [i.8_1] English
2. [_] - [i.8_2] French
3. [_] - [i.8_3] Portuguese
4. [_] - [i.8_4] Arabic
5. [_] - [i.8_5] Swahili
6. [_] - [i.8_6] Afrikaans
7. [_] - [i.8_7] German

9. Do you own a portable CD player, MP3 Player or iPod? - [i.9]

1. [_] - [1] no
2. [_] - [2] Portable CD player
3. [_] - [3] iPod or another MP3 player

10. Do you belong to any groups or social networks? (multiple response) - [i.10]

1. [_] - [i.10_1] no
2. [_] - [i.10_2] church / religious
3. [_] - [i.10_3] trade unions
4. [_] - [i.10_4] sport clubs
5. [_] - [i.10_5] savings clubs / micro finance groups
6. [_] - [i.10_6] radio clubs

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7. [_] - [i.10_7] lobby groups
8. [_] - [i.10_8] reading clubs
9. [_] - [i.10_9] Internet groups/discussion fora
10. [_] - [i.10_10] co-operatives
11. [_] - [i.10_11] burial clubs
12. [_] - [i.10_12] producer groups (e.g. cotton growers association)
13. [_] - [i.10_13] other

11. Do you participate in decision making at village/city/municipal level? - [i.11]

1. [_] - [1] yes
2. [_] - [2] no

12. Do you have a bank account? - [i.12]

1. [_] - [1] yes
2. [_] - [2] no

13. There are many reasons why people don't have a bank account. Why is it that you don't have one? - [i.16]

1. [_] - [i.16_1] I don't need a bank account
2. [_] - [i.16_2] I don't have regular income
3. [_] - [i.16_3] I earn too little to make it worthwhile
4. [_] - [i.16_4] I don't have an identity document or passport
5. [_] - [i.16_5] I don't qualify to open an account
6. [_] - [i.16_6] I don't know how to open a bank account
7. [_] - [i.16_7] I use someone else's bank account
8. [_] - [i.16_8] I prefer dealing in cash
9. [_] - [i.16_9] The bank is too far from where I live
10. [_] - [i.16_10] It's expensive to have a bank account, I cannot afford to have one

14. How do you store money when you receive cash? - [i.13]

1. [_] - [i.13_1] keep in the bank account
2. [_] - [i.13_2] keep in credit /savings group
3. [_] - [i.13_3] give it as a loan to family and friends
4. [_] - [i.13_4] buy some kind of goods to store money
5. [_] - [i.13_5] invest in the household
6. [_] - [i.13_6] keep in a personal safe place
7. [_] - [i.13_7] other

15. How do you get hold of small amounts of cash when needed ? - [i.14]

1. [_] - [i.14_1] selling something
2. [_] - [i.14_2] borrow from friends
3. [_] - [i.14_3] borrow from family

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4. [_] - [i.14_4] withdraw from some kind of formal savings scheme

5. [_] - [i.14_5] withdraw from bank

6. [_] - [i.14_6] borrow from a merchant

7. [_] - [i.14_7] other

16. Which of the following do you worry about when holding cash. - [i.15]

1. [_] - [i.15_1] being robbed

2. [_] - [i.15_2] losing it

3. [_] - [i.15_3] spending it too quickly

4. [_] - [i.15_5] other

17. I am going to read out some statements to you. Please tell me if you agree with them or not (leave blank if don't

know): (Optional) - [i.17]

1. [_]Yes [_]No You can easily live your life without having a bank account

2. [_]Yes [_]No Mobile phone banking can be trusted if backed by a mobile phone operator

3. [_]Yes [_]No Mobile phone banking can be trusted if backed by a bank

4. [_]Yes [_]No You would consider having your salary (or your main source of income) paid into mobile

phone bank account.

5. [_]Yes [_]No You are prepared to use technology

6. [_]Yes [_]No You often don't fell in control of your finances

7. [_]Yes [_]No Banks take advantage of poor people

8. [_]Yes [_]No Computers frighten me

9. [_]Yes [_]No The Internet is here to stay

10. [_]Yes [_]No You try to avoid technology as much as possible

11. [_]Yes [_]No You do not like to carry cash

12. [_]Yes [_]No Having a bank account makes it easier to get a loan

13. [_]Yes [_]No You are saving for something specific (education, a holiday, appliances, furniture, a car)

TV

1. Do you watch TV? - [t.1]

 1. [_] - [1] yes, occasionally

 2. [_] - [3] yes, regularly

 3. [_] - [2] no

2. How many hours a day do you watch Television on average? - [t.2]

 1. [_] - [5] very irregularly

 2. [_] - [1] less than 1 hour

 3. [_] - [2] between 1 and 2 hours

 4. [_] - [3] between 2 and 4 hours

 5. [_] - [4] more than 4 hours

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3. Where do you watch television mainly? - [t.3]

 1. [_] - [1] at home alone

 2. [_] - [2] at home with others

 3. [_] - [3] at friends, relatives or neighbours home

 4. [_] - [4] public places (bars, community halls)

 5. [_] - [5] other

4. What programmes do you view most? - [t.4]

 1. [_] - [1] entertainment

 2. [_] - [2] educational programmes

 3. [_] - [3] local news

 4. [_] - [4] international news

 5. [_] - [5] politics

 6. [_] - [6] sports

 7. [_] - [7] ANYTHING that is being broadcasted

8. [_] - [8] other

5. Which of your information needs does the TV cover? (multiple response) - [t.5]

1. [_] - [t.5_1] market information
2. [_] - [t.5_2] weather information
3. [_] - [t.5_3] job opportunities
4. [_] - [t.5_4] entertainment
5. [_] - [t.5_5] health information
6. [_] - [t.5_6] agricultural advisory services
7. [_] - [t.5_8] local government information
8. [_] - [t.5_7] other educational information

6. Do you talk to other people about what you see on TV? - [t.6]

1. [_] - [1] yes
2. [_] - [2] no

7. Does Watching TV help you to find jobs? - [t.7]

1. [_] - [1] yes
2. [_] - [2] no

8. Have you ever paid someone to be able to watch TV - [t.8]

1. [_] - [1] yes
2. [_] - [2] no

9. Have you ever charged someone to watch TV - [t.9]

1. [_] - [1] yes
2. [_] - [2] no

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10. If you don't watch TV, why not? - [t.10]

1. [_] - [t.10_1] not interested

2. [_] - [t.10_2] house has no electricity

3. [_] - [t.10_3] cannot afford a TV set

4. [_] - [t.10_4] cannot afford TV licence

5. [_] - [t.10_5] other

Radio

1. Do you listen to radio? - [r.1]

1. [_] - [1] no

2. [_] - [2] yes, occasionally

3. [_] - [3] yes, regularly

2. Do you own a personal radio which you can use at any time? - [r.2]

1. [_] - [1] yes

2. [_] - [2] no

3. How many hours a day do you listen to RADIO on average? - [r.3]

4. Where do you listen to radio mainly - [r.4]

1. [_] - [1] at home alone

2. [_] - [2] at home with others

3. [_] - [3] Radio club

4. [_] - [4] work

5. [_] - [5] at friends, relatives or neighbours home

6. [_] - [6] public places (bars, community halls etc.)

7. [_] - [7] while travelling (own car or public transport)

8. [_] - [8] other

5. What programmes do you listen to most? - [r.5]

1. [_] - [1] music

2. [_] - [2] politics

3. [_] - [3] educational programmes

4. [_] - [4] programmes on local issues
5. [_] - [5] sports
6. [_] - [6] news
7. [_] - [7] business purposes
8. [_] - [8] ANYTHING that is being broadcasted
9. [_] - [9] other

6. Which of your information needs does the radio cover? (multiple response) - [r.6]

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1. [_] - [r.6_1] Market Information
2. [_] - [r.6_2] Weather Information
3. [_] - [r.6_3] Job opportunities
4. [_] - [r.6_4] Entertainment
5. [_] - [r.6_8] local government information
6. [_] - [r.6_5] Health information
7. [_] - [r.6_6] Agricultural advisory services
8. [_] - [r.6_7] Other educational information

7. Do you talk to other people about what you listed to on the Radio? - [r.7]

1. [_] - [1] yes
2. [_] - [2] no

8. Does listening to the Radio help you to find jobs? - [r.8]

1. [_] - [1] yes
2. [_] - [2] no

9. What type of radio stations are you listening to most? - [r.10]

1. [_] - [1] public radio station
2. [_] - [2] private radio station
3. [_] - [3] community radio station
4. [_] - [4] international radio station

5. [_] - [5] religious radio station

10. If you do not listen to radio, why not? (multiple response) - [r.9]

1. [_] - [r.9_1] I don't like listing to the radio

2. [_] - [r.9_2] I cannot afford one and no one I know has one

3. [_] - [r.9_3] other

Public phone

1. Have you used any PUBLIC PHONES during the past three months? - [pp.1]

1. [_] - [1] No

2. [_] - [2] Yes

2. How often do you use a public phone? - [pp.6]

1. [_] - [1] Once a day

2. [_] - [2] More than once a day

3. [_] - [3] Once a week

4. [_] - [4] More than once a week

5. [_] - [5] Once a month

3. On average how much do you spend monthly on using PUBLIC PHONES - [pp.2]

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4. What means of transport do you use to reach the nearest working PUBLIC PHONE from your house? (enter the most

frequently used) - [pp.3]

1. [_] - [1] Walk

2. [_] - [4] Horse

3. [_] - [2] Bicycle

4. [_] - [3] Motor bike / car/ taxi/ / bus

5. What are your main reasons for using public phones? (multiple response) - [pp.4]

1. [_] - [pp.4_1] do not have a fixed line phone at home
2. [_] - [pp.4_2] do not have a mobile phone
3. [_] - [pp.4_3] use it because it is cheaper
4. [_] - [pp.4_4] easier than having to recharge mobile
5. [_] - [pp.4_5] other

6. What do you usually use a community / public pay phone for? (multiple response) - [pp.7]

1. [_] - [pp.7_1] Calling fixed line phones
2. [_] - [pp.7_2] Calling mobile phones
3. [_] - [pp.7_3] International calls

7. What makes you choose a particular community / public pay-phone to use? - [pp.8]

1. [_] - [pp.8_1] Price of calls
2. [_] - [pp.8_2] Convenience (e.g. close to my house/work/shop)
3. [_] - [pp.8_3] Security while using
4. [_] - [pp.8_4] Other

8. If you were given your own personal number so that when you called from a community / public pay-phone

people could call your personal number and leave you private voice messages, how much more would you use Public

Pay - [pp.9]

1. [_] - [pp.9_1] The same as you do now
2. [_] - [pp.9_2] Only a very little more (up to 10% increase a month)
3. [_] - [pp.9_3] Quite a bit more (11-30% increase a month)
4. [_] - [pp.9_4] A lot more than you now (31 - 50% increase a month)
5. [_] - [pp.9_5] Very much more that you do now û it would change how I use the phone (51+% increase a

month)

9. Why are you not using public phones? (multiple response) - [pp.5]

1. [_] - [pp.5_1] too inconvenient to use
2. [_] - [pp.5_2] not safe to use at night
3. [_] - [pp.5_3] too expensive
4. [_] - [pp.5_4] I prefer to use my phone at home
5. [_] - [pp.5_5] I prefer to use the fixed-line phone at work or at school
6. [_] - [pp.5_6] I prefer to use my mobile

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7. [_] - [pp.5_7] other

Work Phone

1. Do you have access to a telephone at work, on which you can receive calls? - [wp.1]

1. [_] - [1] yes
2. [_] - [2] no

2. Can you use this telephone for personal use, to make calls to fixed line phones? - [wp.2]

1. [_] - [1] yes
2. [_] - [2] no

3. Can you use this telephone for personal use, to make calls to mobile phones? - [wp3]

1. [_] - [1] yes
2. [_] - [2] no

4. Do you save up on personal calls, so that you can make them from the WORK PHONE? - [wp.4]

1. [_] - [1] yes
2. [_] - [2] no

5. On average, how many personal calls did you make last week from the WORK PHONE? - [wp.5]

Internet

1. Do you know what the Internet is? - [iu.1]

1. [_] - [1] yes
2. [_] - [2] no

2. Do you ever use the Internet? - [iu.2]

1. [_] - [1] yes
2. [_] - [2] no

3. Do you have an email address? - [iu.3]

1. [_] - [1] Personal Subscription
2. [_] - [2] Personal Free Account (e.g. hotmail, yahoo)
3. [_] - [3] Work Subscription
4. [_] - [4] Combination
5. [_] - [5] No email

4. What are you using email for (multiple response)? - [iu.4]

1. [_] - [iu.4_1] socially communicate with friends &family
2. [_] - [iu.4_2] communicate with colleagues for work purposes
3. [_] - [iu.4_3] communicate with fellow students for study purposes
4. [_] - [iu.4_4] interacting with local government
5. [_] - [iu.4_5] business purposes
6. [_] - [iu.4_6] other

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5. Where do you use the internet (multiple response) à - [iu.4a]

1. [_] - [iu.4a_1] at home
2. [_] - [iu.4a_2] at another persons HOME
3. [_] - [iu.4a_3] at an educational institution (school, university, etc.)
4. [_] - [iu.4a_4] CYBER Cafe/Internet,Cafe
5. [_] - [iu.4a_5] at work

6. [_] - [iu.4a_6] using a mobile phone

7. [_] - [iu.4a_7] library

8. [_] - [iu.4a_8] not at all

6. How often on average have you used the internet in the last 6 months? - [iu.5]

1. [_] - [1] Every day or almost every day

2. [_] - [2] At least once a week

3. [_] - [3] At least once a month

4. [_] - [4] Less than once a month

7. Would you say that compared to 6 MONTHS AGO, the number of HOURS A WEEK has - [iu.6]

1. [_] - [2] Stayed same

2. [_] - [3] Decreased

3. [_] - [1] Increased

8. On average, how much money do you spend PER WEEK on using the Internet? (in local currency) - [iu.7]

9. What limits the usefulness of the Internet to you? - [iu.8]

1. [_] - [iu.8_1] there is no interesting content for me

2. [_] - [iu.8_8] lack of local language content

3. [_] - [iu.8_3] I do not know much about how to use the Internet

4. [_] - [iu.8_2] I do not always have access to a computer with Internet connection

5. [_] - [iu.8_4] the Internet is very slow

6. [_] - [iu.8_5] cost of access

7. [_] - [iu.8_6] lack of time

8. [_] - [iu.8_7] other

10. Which of these have you used the Internet for during the last 6 months? (multiple response) - [iu.9]

1. [_] - [iu.9_1] accessing the news

2. [_] - [iu.9_2] sending and receiving emails

3. [_] - [iu.9_3] playing online games

4. [_] - [iu.9_4] finding information I am interested in

5. [_] - [iu.9_5] downloading / listening to music

6. [_] - [iu.9_6] making Internet phone calls (VoIP)

7. [_] - [iu.9_7] education, as part of a course I was registered in

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8. [_] - [iu.9_8] education in general

9. [_] - [iu.9_13] researching as part of a training course or your education

10. [_] - [iu.9_10] chatting & exchanging messages

11. [_] - [iu.9_9] online banking

12. [_] - [iu.9_11] paying bills online using credit cards

13. [_] - [iu.9_17] accessing local government services online

14. [_] - [iu.9_18] Getting information for a friend or family member

INFO: Internet telephony refers to the science or technology of integrating telephone services into computer

networks. In essence, Internet telephony converts analogue voice signals into digital signals, transmits them, then

converts them back again. Voice over IP (VoIP) is a common Internet telephony service.

11. If Internet is used for business purposes please explain how: - [iu.10]

12. How confident would you feel if you had to carry out the following tasks. Please tell me on a scale from 1 to 5

where 1 means "I am not at all confident" and 5 means "I am very confident". - [iu.11]

1 2 3 4 5 (Select 1 - ONE in each row)

1. [_] [_] [_] [_] [_] using a search engine to find information on the Internet

2. [_] [_] [_] [_] [_] using e-mail to communicate with others)

3. [_] [_] [_] [_] [_] downloading and installing software onto a computer

4. [_] [_] [_] [_] [_] identifying the cause for computer problems

5. [_] [_] [_] [_] [_] understanding text written in English

6. [_] [_] [_] [_] [_] typing a letter or CV on the computer

7. [_] [_] [_] [_] [_] participate in an online discussion forum on a topic of your interest

8. [_] [_] [_] [_] [_] making a call over the Internet

13. How easy would it be for you, for instance in your household or circle of friends, to find people who would be able

and have the time to help you use computers or the Internet? Would it be - [iu.12]

1. [_] - [1] very easy

2. [_] - [2] quite easy

3. [_] - [3] not very easy

4. [_] - [4] not at all easy

5. [_] - [5] no answer

14. Could you imagine taking a training course online over the Internet? This means that a significant part of the

learning content is being received via the Internet. - [iu.13]

1. [_] - [iu.13_1] yes, if it helps me in my job or for my studies

2. [_] - [iu.13_2] no

3. [_] - [iu.13_3] only if I get a certificate for it

15. Do you know what broadband Internet access is? - [iu.14]

1. [_] - [1] yes

2. [_] - [2] no

16. Use Payment Ladder B and follow instructions. Highest Yes - [iu.15]

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17. Use Payment Ladder B and follow instructions. Lowest No - [var_989]

No Internet

18. What are the reasons that you do not use the Internet? (Multiple Choice) - [iu.16]

1. [_] - [iu.16_1] I do not have access to a computer
2. [_] - [iu.16_2] I do not know how to use computers
3. [_] - [iu.16_3] I do not want to use the INTERNET
4. [_] - [iu.16_4] I have no one to email to
5. [_] - [iu.16_7] I do not have access to any Internet facilities
6. [_] - [iu.16_5] cannot read/write
7. [_] - [iu.16_8] I can not afford to use the Internet
8. [_] - [iu.16_6] other

Mobile

1. Do you own mobile phone or active SIM card? - [m.1]
   1. [_] - [1] I have a mobile phone
   2. [_] - [3] I have an active SIM card but no mobile phone
   3. [_] - [6] I neither have an active SIM card nor a mobile Phone
2. When did YOU get your first MOBILE PHONE? (Year) - [m.2]
3. How many ACTIVE local MOBILE PHONE numbers (SIM cards) do you have? - [m.3]
4. If you have multiple active SIMS how often do you change them? - [m.3b]
   1. [_] - [1] Several times a day
   2. [_] - [2] Once a day
   3. [_] - [3] Several times a week
   4. [_] - [4] Once a week
   5. [_] - [5] Several times a month
   6. [_] - [6] Once a month
   7. [_] - [8] Several times a year
   8. [_] - [7] Once a year
   9. [_] - [9] Never
   10. [_] - [10] not applicable

5. Is it a prepaid or postpaid (contract) phone? - [m.4]

1. [_] - [1] prepaid

2. [_] - [2] postpaid (contract)

3. [_] - [3] both (have multiple)

6. What do you use your mobile phone for? - [m.5]

1. [_]Yes [_]No Making phone calls

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2. [_]Yes [_]No Receiving phone calls

3. [_]Yes [_]No Sending SMS

4. [_]Yes [_]No Receiving SMS

5. [_]Yes [_]No Taking photos

6. [_]Yes [_]No Taking video clips

7. [_]Yes [_]No Sending MMS

8. [_]Yes [_]No Receiving MMS

9. [_]Yes [_]No I use it as a diary

10. [_]Yes [_]No To send emails

11. [_]Yes [_]No To receive emails

12. [_]Yes [_]No I use it to keep time instead of a watch

13. [_]Yes [_]No To conduct my banking

14. [_]Yes [_]No To play games

15. [_]Yes [_]No To send faxes

16. [_]Yes [_]No To download music

17. [_]Yes [_]No To listen to music

18. [_]Yes [_]No Sending BEEPs, FLASHs, BUZZs, MISSED CALLs or a PLEASE CALL MEs

19. [_]Yes [_]No Receiving BEEPs, FLASHs, BUZZs, MISSED CALLs or a PLEASE CALL MEs

7. How did you get your current (latest) mobile phone - [m.6]

1. [_] - [1] I got a new mobile when I signed a contract
2. [_] - [2] I bought a new phone
3. [_] - [3] I bought a second-hand phone
4. [_] - [4] I got a new phone from family or friends
5. [_] - [5] I got a second-hand phone from family or friends

8. What is the name of your current service provider (main provider if multiple SIM cards)? - [m.7]

9. What are the main reasons for you to select your mobile provider? (multiple response) - [m.8]

1. [_] - [m.8_13] Most of my friends and family members are on the same network
2. [_] - [m.8_11] A hand set being offered (free) with the connection
3. [_] - [m.8_1] I was interested in a particular package
4. [_] - [m.8_2] Wider coverage (or the coverage I needed)
5. [_] - [m.8_3] Range of services offered
6. [_] - [m.8_4] Low connection charges
7. [_] - [m.8_5] Better voice clarity/quality
8. [_] - [m.8_6] Better customer service
9. [_] - [m.8_7] Cheapest rates in general
10. [_] - [m.8_8] No other available options

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11. [_] - [m.8_9] I got connected fast and conveniently
12. [_] - [m.8_10] Reputation of the company
13. [_] - [m.8_12] other

10. Could you tell me how much you spent last MONTH for mobile phone usage (monthly

subscription if any, calling

and sending SMS)? - [m.9]

11. Is this expenditure more or less than usual, or the same? - [m.11]

1. [_] - [1] More
2. [_] - [2] On average
3. [_] - [3] Less

12. Who pays your mobile expenses or bill? - [m.10]

1. [_] - [1] Self
2. [_] - [2] Partner / Spouse
3. [_] - [3] Parents
4. [_] - [4] Other Family Members
5. [_] - [5] Work
6. [_] - [6] Others

13. How much are you currently paying for a one minute call to a mobile phone from the same network during peak

time? (0=do not know) - [m.12]

14. How much are you currently paying for sending a SMS? (0=do not know) - [m.13]

15. Is the current cost of calls - [m.14]

1. [_] - [4] very low
2. [_] - [1] low
3. [_] - [2] ok
4. [_] - [3] high
5. [_] - [5] very high

16. What prevents you from making more phone calls, from the mobile phone? - [m.15]

1. [_] - [m.15_1] Nothing û currently on optimum use
2. [_] - [m.15_2] People I want to call have no phones
3. [_] - [m.15_3] Cost of calls

4. [_] - [m.15_4] Coverage

5. [_] - [m.15_5] Do not own a handset

6. [_] - [m.15_6] other

17. If calls were cheaper would you: - [m.16]

1. [_] - [1] make more calls

2. [_] - [2] make the same amount of calls and use the saved money for something else

3. [_] - [3] both

4. [_] - [4] do not know

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18. Suppose the cost of using your phone came down by half. Which of these statements best describes how you

would change your phone usage? - [m.17]

1. [_] - [1] I would not change my phone usage

2. [_] - [2] I would increase my phone usage by some amount, but not double my usage

3. [_] - [3] I would double my phone usage

4. [_] - [4] I would more than double my phone usage

19. Suppose the cost of using your phone doubled. Which one of these statements best describe how you would

change your phone usage? - [m.18]

1. [_] - [1] I would not change my phone usage?

2. [_] - [2] I would reduce my phone usage by some amount, but not by half

3. [_] - [3] would reduce my phone usage by half

4. [_] - [4] I would reduce my phone usage by more than half

20. Would you consider changing your service provider if you could keep your number (Number portability)? - [m.19]

1. [_] - [1] yes

2. [_] - [2] no

21. Have you ever ported your number to another network or switched providers? - [m.20]

1. [_] - [1] yes, switched provider

2. [_] - [2] yes, switched provider and ported number

3. [_] - [3] never switched provider or ported number

4. [_] - [4] Not available in country

22. What has stopped you from switching providers / porting your number? - [m.21]

1. [_] - [1] Happy with existing provider

2. [_] - [2] Cost of terminating service contract

3. [_] - [3] Admin processes too complicated

4. [_] - [6] It takes too long to port a number

5. [_] - [7] I could not port my number

6. [_] - [4] other

23. How often do you send a BEEP, FLASH, BUZZ, MISSED CALL or a PLEASE CALL MEö to someone in a week? - [m.23]

24. How often are you receiving a BEEP, FLASH, BUZZ, MISSED CALL or a PLEASE CALL MEö in a week? - [m.24]

25. Do other people use your mobile REGULARLY? (multiple choice) - [m.25]

1. [_] - [m.25_1] no

2. [_] - [m.25_2] yes, family members

3. [_] - [m.25_3] yes, friends

4. [_] - [m.25_4] yes, neighbours

5. [_] - [m.25_5] yes, work colleagues or fellow students

26. Could you calculate on average how many SMS you send daily? - [m.26]

27. Could you calculate on average how many SMS you receive daily? - [m.27]

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28. Do you ever let others use your mobile phone to send SMS? - [m.28]

1. [_] - [1] yes

2. [_] - [2] no

29. To whom do you send SMSs to most? - [m.29]

1. [_] - [1] family members

2. [_] - [2] friends

3. [_] - [3] business contacts (client, supplier)

4. [_] - [4] spouse / partner

30. From whom are you receiving SMSs most? - [m.30]

1. [_] - [1] family member

2. [_] - [2] friend

3. [_] - [3] business contact (client, supplier)

4. [_] - [4] spouse / partner

31. I am going to read out some statements to you. Please tell me if you agree or not with each statement (don't know

= leave blank) - [m.31]

1. [_]Yes [_]No Using a mobile phone make my life easier

2. [_]Yes [_]No Using a Mobile Phone saves me TRAVELLING time & costs?

3. [_]Yes [_]No Using a Mobile Phone helps me to stay informed about the latest news

4. [_]Yes [_]No Using a Mobile Phone helps me to socialise

5. [_]Yes [_]No Using a Mobile Phone helps me to find jobs

6. [_]Yes [_]No Using a Mobile Phone provides me with a sense of security for the case of emergencies

7. [_]Yes [_]No Using a Mobile Phone helps me to run my business

8. [_]Yes [_]No Using a Mobile Phone is fashionable

32. Who calls you most? - [m.38]

1. [_] - [1] family members

2. [_] - [2] friends

3. [_] - [3] business clients

4. [_] - [4] business suppliers

5. [_] - [5] financial service providers (bank)

6. [_] - [6] information services

7. [_] - [7] employees

8. [_] - [8] employer

33. Whom are you calling most? - [m.39]

1. [_] - [1] family members

2. [_] - [2] friends

3. [_] - [3] business clients

4. [_] - [4] business suppliers

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5. [_] - [5] financial service providers (bank)

6. [_] - [6] information services

7. [_] - [7] employees

8. [_] - [8] employer

34. What was the main purpose of the last 10 calls that you received? - [m.40]

1. [_] - [1] social calls(friends and family)

2. [_] - [2] someone wanted information from you

3. [_] - [3] someone needed your help in an emergency

4. [_] - [4] some one wanted to buy something from you

5. [_] - [5] someone wanted to sell you something

6. [_] - [6] your employer called you on a work related issue

35. What was the main purpose of the last 10 calls that you made? - [m.41]

1. [_] - [1] social call (friends and family)

2. [_] - [2] to get information from someone

3. [_] - [3] to get help in an emergency

4. [_] - [4] to make a purchases/orders

5. [_] - [5] to sell something

6. [_] - [6] to talk to employees regarding work related issues

Airtime Transfer

1. Have you ever transferred airtime (credit or units) to someone else's mobile phone? - [m.42]

1. [_] - [1] yes

2. [_] - [2] no

2. How often a week are you transferring airtime to someone else's mobile phone? - [m.43]

3. Please state the main reasons for sending airtime: (multiple choices allowed) - [m.44]

1. [_] - [m.44_1] selling airtime to someone

2. [_] - [m.44_2] paying for goods or services

3. [_] - [m.44_3] as a favour to a friend or family member

4. [_] - [m.44_4] other

4. What factors would make you prefer sending airtime rather than paying cash or transferring money via banks? - [m.

45]

1. [_] - [m.45_1] zero transaction costs

2. [_] - [m.45_2] no loss if mobile phone gets stolen

3. [_] - [m.45_3] safe transaction with feedback on transfer

4. [_] - [m.45_4] wide acceptance of airtime as a means of payment

5. [_] - [m.45_5] other

5. Have you ever received airtime from someone else's mobile phone? - [m.46]

5353

1. [_] - [1] yes

2. [_] - [2] no

6. How often a week do you receive airtime on your mobile phone from someone else? - [m.47]

7. Please state the main reasons for receiving airtime: (multiple choices allowed) - [m.48]

1. [_] - [m.48_1] buying airtime from someone
2. [_] - [m.48_2] being paid for goods or services
3. [_] - [m.48_3] as a favour from a friend or family member
4. [_] - [m.48_4] other

8. What factors would make you prefer receiving airtime rather than cash? - [m.49]

1. [_] - [m.49_1] zero transaction costs
2. [_] - [m.49_2] no loss if mobile phone gets stolen
3. [_] - [m.49_3] safe transaction with feedback on transfer
4. [_] - [m.49_4] wide acceptance of airtime as a means of payment
5. [_] - [m.49_5] other

No Mobile

1. If you were given a phone at a rate which you can very much afford (this would include the initial cost as well as

monthly call rates), will you be interested in buying one? - [m.50]

1. [_] - [1] yes
2. [_] - [2] no

2. Why don't you have a own active SIM card? (Optional) - [m.61]

1. [_] - [m.61_1] Cost of buying a SIM card
2. [_] - [m.61_2] Cost of calls
3. [_] - [m.61_3] No access to a handset to use the SIM card in
4. [_] - [m.61_4] There is no mobile coverage where I live
5. [_] - [m.61_5] I don't have anyone to call
6. [_] - [m.61_6] I use a fixed line phone

7. [_] - [m.61_7] I use a community / public pay-phone

8. [_] - [m.61_8] other

3. Why don't you have a mobile phone (handset) (Optional) - [m.62]

1. [_] - [m.62_1] I cannot afford my own handset (mobile phone)

2. [_] - [m.62_2] There is no coverage where I live and when I am in somewhere where there is coverage then

I can borrow someone else's.

3. [_] - [m.62_3] We do not have electricity at home to charge the mobile phone

4. [_] - [m.62_4] other

4. Use payment ladder C and follow instructions: Highest Yes - [m.51]

5. Use payment ladder C and follow instructions: Lowest No - [m.52]

54

6. Use payment ladder D and follow instructions: Highest Yes - [m.53]

7. Use payment ladder D and follow instructions: Lowest No - [m.54]

8. Use payment ladder E and follow instructions: Highest Yes - [m.70]

9. Use payment ladder E and follow instructions: Lowest No - [m.71]

10. If you were to buy a new phone, how much would you expect it to cost you? This is inclusive of the hand set and

the connection? - [m.55]

11. If you were to buy a new phone how much would you expect the monthly call charges to be ? - [m.56]

12. Do you plan to get a mobile phone for your own use in the future? - [m.57]

1. [_] - [1] yes

2. [_] - [2] no

13. When do you expect to make this purchase ? - [m.58]

1. [_] - [1] Within the next 3 months

2. [_] - [2] Within the next 6 months

3. [_] - [3] Within the next year

4. [_] - [4] Within the next 2 years

14. You said you plan to buy your own phone? What type of phone would it be? - [m.59]

1. [_] - [1] Mobile - Contract

2. [_] - [2] Mobile - Pre-paid

3. [_] - [3] Fixed Wireless

EA Questionnaire

MODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITSMODULE 1: Questionnaire -IDENTIFICATION and INTERVIEWER VISITS

EA.1 Country Name EA.1 Country Name EA.1 Country Name EA.1 Country Name

EA.2 Country Research Organisation EA.2 Country Research Organisation EA.2 Country Research Organisation EA.2 Country Research Organisation

EA.3 Survey LocationEA.3 Survey LocationEA.3 Survey LocationEA.3 Survey Location 1 = Major Towns 2 = Other Urban 3 = Rural1 = Major Towns 2 = Other Urban 3 = Rural1 = Major Towns 2 = Other Urban 3 = Rural1 = Major Towns 2 = Other Urban 3 = Rural1 = Major Towns 2 = Other Urban 3 = Rural

EA.4 EA ID Number (selected cluster number)EA.4 EA ID Number (selected cluster number)EA.4 EA ID Number (selected cluster number)EA.4 EA ID Number (selected cluster number)

EA.5 Field Manager IDEA.5 Field Manager IDEA.5 Field Manager IDEA.5 Field Manager ID

Date of completion: dd mm yyDate of completion: dd mm yyDate of completion: dd mm yyDate of completion: dd mm yy

Signature FIELD MANAGERSignature FIELD MANAGERSignature FIELD MANAGERSignature FIELD MANAGER

MODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTESMODULE 2: EA ATTRIBUTES

EA.6 How far Away is it to the next major urban area?EA.6 How far Away is it to the next major urban area?EA.6 How far Away is it to the next major urban area?EA.6 How far Away is it to the next major urban area? Skip if EA.3 =1

EA.7 What is the quality of the main roads serving the area?EA.7 What is the quality of the main roads serving the area?EA.7 What is the quality of the main roads serving the area?EA.7 What is the quality of the main roads serving the area? 1=dirt road 2=gravel road

3=tar road

1=dirt road 2=gravel road

3=tar road

1=dirt road 2=gravel road

3=tar road

1=dirt road 2=gravel road

3=tar road

EA.8 Are there pavements in the EA?EA.8 Are there pavements in the EA?EA.8 Are there pavements in the EA?EA.8 Are there pavements in the EA? 0 = No 1 = Yes 2 = partly0 = No 1 = Yes 2 = partly0 = No 1 = Yes 2 = partly0 = No 1 = Yes 2 = partly

EA.9 Does the EA have piped public water?EA.9 Does the EA have piped public water?EA.9 Does the EA have piped public water?EA.9 Does the EA have piped public water? 0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes

EA.10 Is the EA connected to the electricity Grid?EA.10 Is the EA connected to the electricity Grid?EA.10 Is the EA connected to the electricity Grid?EA.10 Is the EA connected to the electricity Grid? 0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes

EA.11 Does the EA have a Sewage system?EA.11 Does the EA have a Sewage system?EA.11 Does the EA have a Sewage system?EA.11 Does the EA have a Sewage system? 0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes

EA.12 What ETHNIC and religious groups are located in the EA?EA.12 What ETHNIC and religious groups are located in the EA?EA.12 What ETHNIC and religious groups are located in the EA?EA.12 What ETHNIC and religious groups are located in the EA?

EA.13 What is the climate?EA.13 What is the climate?EA.13 What is the climate?EA.13 What is the climate? 1=arid, 2=semi arid, 3=humid1=arid, 2=semi arid, 3=humid1=arid, 2=semi arid, 3=humid1=arid, 2=semi arid, 3=humid

EA.14 If rural, what agricultural crops are grown in the area and

what is the current season?

EA.14 If rural, what agricultural crops are grown in the area and

what is the current season?

EA.14 If rural, what agricultural crops are grown in the area and

what is the current season?

EA.14 If rural, what agricultural crops are grown in the area and

what is the current season?

EA.15 Where is the next post office (km)?EA.15 Where is the next post office (km)?EA.15 Where is the next post office (km)?EA.15 Where is the next post office (km)?

1=in the EA

2=less than 1km

3=1-5 km

4=6-10km

5=11-25 km

6=26-50km

7=+50km

EA.16 Where is the next Bank (km)?EA.16 Where is the next Bank (km)?EA.16 Where is the next Bank (km)?EA.16 Where is the next Bank (km)? 1=in the EA

2=less than 1km

3=1-5 km

4=6-10km

5=11-25 km

6=26-50km

7=+50km

EA.17 Where is the next ATM (km)?EA.17 Where is the next ATM (km)?EA.17 Where is the next ATM (km)?EA.17 Where is the next ATM (km)?

1=in the EA

2=less than 1km

3=1-5 km

4=6-10km

5=11-25 km

6=26-50km

7=+50km

EA.18 Where is the next Hospital or Clinic (km)?EA.18 Where is the next Hospital or Clinic (km)?EA.18 Where is the next Hospital or Clinic (km)?EA.18 Where is the next Hospital or Clinic (km)?

1=in the EA

2=less than 1km

3=1-5 km

4=6-10km

5=11-25 km

6=26-50km

7=+50kmEA.19 Where is the next Primary school (km)?EA.19 Where is the next Primary school (km)?EA.19 Where is the next Primary school (km)?EA.19 Where is the next Primary school (km)?

1=in the EA

2=less than 1km

3=1-5 km

4=6-10km

5=11-25 km

6=26-50km

7=+50km

EA.20 Where is the next Public Phone or telephone Kiosk (km)?EA.20 Where is the next Public Phone or telephone Kiosk (km)?EA.20 Where is the next Public Phone or telephone Kiosk (km)?EA.20 Where is the next Public Phone or telephone Kiosk (km)?

1=in the EA

2=less than 1km

3=1-5 km

4=6-10km

5=11-25 km

6=26-50km

7=+50km

EA 21: Is there cellphone reception in the EA?EA 21: Is there cellphone reception in the EA?EA 21: Is there cellphone reception in the EA?EA 21: Is there cellphone reception in the EA? 0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes

EA 22: Is the fixed-line connectivity in the EA?EA 22: Is the fixed-line connectivity in the EA?EA 22: Is the fixed-line connectivity in the EA?EA 22: Is the fixed-line connectivity in the EA? 0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes0 = No 1 = Yes

MODULE 3: Landmark GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark

GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark GPS readingMODULE 3: Landmark GPS reading

Name of LandmarkName of Landmark Landmark Symbol on Map (A, B, C..)Landmark Symbol on Map (A, B, C..)Landmark Symbol on Map (A, B, C..) LongitudeLongitude LatitudeLatitude

MODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting PointMODULE 4: Sampling Interval and Random Starting Point

Total Number of HH in

EA (from listing)

Sampling target

for EA

Sampling target

for EA

Sampling Interval (Total number of

hh in EA / sampling target for EA)

Sampling Interval (Total number of

hh in EA / sampling target for EA)

Sampling Interval (Total number of

hh in EA / sampling target for EA) Time: hh:mm

Random Starting Point (add

4 digits of time field)

Random Starting Point (add

4 digits of time field)

ANNEXURE B: Focus Group Discussions Transcripts

FOCUS GROUP TRANSCRIPTS: URBAN HIGH END USERS,
VENUE: WITS LINK CENTRE – JOHANNESBURG

DATE: APRIL 2008:

TARGET POPULATION: MALE & FEMALE PARTICIPANTS
Key:

F: Facilitator

P: Participant

SUMMARY

- The venue was considered suitable for easy access.
- Participants ranged from the ages 34 to 60. All the participants were from the Gauteng Province.
- In terms of occupation, all participants were employed and some were part-time students and consisted of a good balance of high-end users and average users of technology.
- The level of education of all participants was at the least tertiary level.

START:

F: Err, to get us going and to talk about just to have a sense of the room here reflex. **F**: Does anybody in this room have a mobile phone? **P:**Yes **F**: Does anybody have more than one mobile phone? **P**: yes **F**: obviously here, but you do **P**: Cellular phone number. **F**: okay, let me ask you? Phones? Equipment? Okay so? **F**: How many of you have more than one phone? Obviously I can't. …*Coughing*. **F**: How many of you have more than 1 sim

card? Are those sim cards in a separate phone or do you use sim cards to change in your new related phone? **P**: separately… **F**: All separate. Separate phones, separate sim cards? **P**: umh - sometimes I guess one can use them interchangeable. **F**: but you are not using it lots like other parts of the country where people talk to different networks, data collections, data networks, get lower packages, be online, on net. but yours, you use the two separate. **P**: well just one cause I have got a separate sim card that I use for data but it's actually got a number so I actually use two Sims… **F**: interrupted: but that's a data card but has a data number? **P**: Yes so I have to use two numbers but I only use it for data card that I am using for data.

F: When we were talking about more than one number or more than one sim card, you were talking about your data card and for your voice sim or you've two sim cards you using for voice? **P**: well, I have two voice cards, one for MTN and one for Vodacom for voice. For data my MTN can covers data and voice in my mobile. And in case I have a phone on my MTN network I can use my Vodacom sim on data device to run data. **F**: okay so it's kind of some contingency plan. **F**: your two-sim cards, your two numbers, you using them for voice. **P**: yeah, I also have two mobile phones. Yes I use them separately like that, the other for MTN and the other for Vodacom in fact basically because of the problem Vodacom has in terms of networking. At times you don't get proper network. **F**: where do u experience that with Vodacom. **P**: basically when I am moving towards Free State. **F**: okay, it's more up in urban areas. **P**: yes, some parts. **F**: and you don't feel the same about MTN in those areas. **P**: no, I've never really, in fact I just keep the one Vodacom because I love Vodacom that's all. (Laughter). **P**: you should get network condition breakdown and stuff like that.

F: is there anyone using business card in a private number. **P**: yeah, actual I have three units and three Sims, now the one is personal and the one is business my Vodacom is business and MTN is personal. Sometimes I receive

personal calls on Vodacom, the issue of getting cheaper when phoning Vodacom to Vodacom. So whoever is calling me is on Vodacom. So the other sim cards is on the pay as you go you know some of us who really love our phones so it sets a limit on your budget so as soon as they cut you off, you go on a prepaid. My personal phones both of them are on MTN the one is on contract so when they soft-lock your phone I then go on pay as you go but then one would have my original number which is that one of the contract and is purely for making calls. I receive my calls on the other phone. **F**: and you didn't want to loose your phone number is that why you kept it? You've got work number and your personal number? Business calls. **P**: Yeah I didn't want business calls coming with my phones in the middle of the night 1am and so forth. **F**: so it sorts of controlling who's calling you and stuff and not about anybody to loose your number. **P**: that too also I didn't want to mix my personal space with my work environment. **F**: okay. **P**: I have two MTN Sims cards so when I get a soft lock on the other one I can use the other one. What I do cause the other one does not support data, 3G I just swap the phones around and I use 3G and retain my contract soft lock phone on the handset. **F**:and how long do you have that soft lock contract? Is it something you have for several years and just kept it as a way of…. controlling? Yeah?.**P**: It is working well for me. **P**: Yeah well for me. I've been having it for I don't know, what? Three four years but its one of those things you can lift, I can actually call them as tell them and say lift this thing, well it's working well for me. (Laughing). **P**: I think in my case I kept Vodacom down well cause I was one of the first people on the Vodacom network when they start rolling to test Vodacom network so I was one of the guys that queue to get the phone so I didn't want to loose my number.

F: Mike, your two Sims? **P**: I've got another sim because Telkom cut me off with my. And I had incidents so I didn't want to I didn't want to get it on contract so I bought a separate sim I use for 3G for data. **F**: so you only have the two Sims the data card and the other one? **P**: it's not a data card it's only

a sim I can use as a phone? **F**: Yeah I mean for the 3G. **P**: so I buy phone I buy phone time I convert phone time to data time and I was advised that I could use it and it works out cheapest way as if you're not gonna use it all the time but use it as a backup so if you are away from the ADSL or Telkom you can get yourself connected but if it sits there for months without working that doesn't do anything.

F: I wonder if anybody in the room, uhm has anybody in the room either got their phone from work or bought for them? Is here anybody not falling to those two categories? **P**: from my perspective I have a work phone which is under work contract and then I also have a data connection on a separate data card which is also work and they also and say so h…. So my work phone is on MTN and my work data contract is on Vodacom but the two because of the technologies handsets now you can plug handset into your laptop and use it as Telkom connection and that's why. **F**: how many phones do you have? Historically? Do u think you are your third phone or tenth phone? **P**: this is third phone. **F**: your third phone? Okay? And that is an upgrade? You never lost a phone? **P**: yes.

F: how many of you got their phones stolen. **P**: Yeah mine twice. (Laughter), (coughing). **F**: Did anybody get a phone from a spouse or family members? **P**: my brother. **F**: oh! You got yours from your brother, as a gift or he hand you down. **P**: hand me down. **F**: okay, now that's interesting, now how can your brother just hand you down his phone. **P**: he gets a new contract and hands this down to me. **F**: okay, and why didn't you hand your phone to him? **P**: I handed it to somebody else. (laughter in the room). **F**: I've been trying to establish the academics. blah blah (there was laughter couldn't here). **F**: so you phone who gave it to you? **P**: my brother. **F**: your brother, okay. **F**: yeah, he got an upgrade and it just happened at the time that my phone was stolen.

F: okay, okay, alright. **F**: just for similar people here, do you , did anybody here actually bought a phone for a spouse? **P**: (lot of people answered at

once): my spouse? Spouse or partner?**F**: Yeah spouse, I was asking spouse, your partner. **P**: Yeah I did. **F**: is it for your wife and you bought her a phone. **P**: no a contract. **F**: a contract. **P**: I actually gave her my old contract..(couldn't hear). **F**: did you pay for that phone? **P**: Yes. **F**: does she work? **P**: yes she does. **F**: okay, and you paid for the contract? **P**: yes. **F**: and in your situation? **P**: I bought it, I just bought it for her. **F**: okay? **P**: and she's using it? **F**: and does she pay for the usage or do you pay for the calls? **P**: No, I don't pay. **F**: she got the phone she can pay. **P**: (laughter in the room) then what I know of is that all the time she forgets the phone in the bag or she doesn't respond or why this & that? (laughter) later on I will ask her why didn't you respond? (laughter) **F**: do you know that because you provided her with the phone she has some obligation to have it to her that you can call her? (Laughter). **P**: Well. **F**: you would like that? **P**: I think that is. …(Couldn't hear). (Laughter in the room).**F**: okay, if you were to keep taps on her you would do? **P**: no, not that. **F**: just to be in contact? **P**: yeah just to be in contact, everybody here can call her but when I need to call her she must answer my calls. (laughter)……(I'm expecting this type from this research). **F**: maybe you should pay for the calls. (Laughter). **P**: I just want to add that I also don't pay for my wife's phone she also doesn't use it I also get cross about it. (laughter). **P**: see this does solve the problem; though I pay for it still I can't get hold of her. It's a matter of principle in terms of when the phone, when I working she always had the phone and I was paying for it but she's started working so I said it won't be worse of, so the fact that you working you should be able to save so continue in the house as if you are still not working and I pay for everything. **F**: okay, so you cover everything, okay.

Other topic:**F**: what about children> do any of you purchase a phone/contract for your children? **P**: he is too young. **F**: when you say that, it's quite interesting because you maybe surprised. **P**: nine, (laughter). **F**: nine, okay a lot of people do it. …(the Candidate: completed the sentence but couldn't hear what he's saying) but you think that he's too young. **P**: I bought for my

niece and I subsidize her. **F**: whyis that? Do you like her or? (loud laughter). **P:** she says she needs it. **F**: she needs it? Why does she need it.**P**: to text. **F**: Friends? **P**: friends. **F**: and for security? **P**: no and for me to get hold of her when I pick her up from school. **F**: oh, okay, so it's also for logistics. **P**: yeah. I make sure there it has no 3G because I don't want mix-it. **F**: okay, so you give some control over it, it's a gift but you sort of decide how she can use it… **P**: for instance I say for a week you get your R30 airtime and that's it. **F**: you manage it, okay, (another person). **P**: my kids also have phones but that's merely to..err.. because my mother-in-law picks them up from school and things like and she sometimes takes them so it's important for me to know there are okay. **F**: okay, so its kind of security issue. (another case). **F**: do you, does your children have phones. **P**: I have one with data phone because I don't have a land-line and the only reason there is one is because when he gets back from school he will phone me and say mommy, I need certain information for homework and that is it. I make sure there's R30 airtime on that but they need to use it very sparing when they use their airtime. **F**: they are! and which, why? You, have you not chosen to have a fixed line or you can you not get one? **P**: I can but they can be very naughty if I have to put one in and they will be calling all their friends and its better like that. **F**: yeah but you could lock it. **P**: yes. **F**: you decided you don't want it. **P**: no.

F: has anybody else in this room not having a home fixed line? **P**: I don't. **F**: and umh..can I get a sense why is that the case. **P**: umh, I have guest houses so whenever I put a landline in, then we turn in fully in to a guest house and I've got to move out so by large we just have to lodged out. (laughter). **F**: and umh, so it's convenient? **P**: it's more convenient. **P**: Well at the end of the day children have some form of ……**P**: Again when I want to talk to my wife like I said I bought the one phone (laughter) when she's at work I don't talk to her through that land-line so it's better that I communicated that to her. **F**: and at home? **P**: at home I don't have landline. **F**: you don't have? **P**: I don't have and don't really want to and it's going take time to installed there I think its

that is going to take long so mobile phone I buy it here and going to use it now. **F**: and for everybody that convenience out where is the fact that it contributes more to phone? You are not concerned about that's not big enough difference for you to be a …….**P**: most often even if you are at home people call because you never know when you are going to be at home, lately you are going to pay by default you are going to pay for a fee for the call and the second thing is Telkom run around for installation and after getting a reference number if you cant install it two months later after …… (can't hear). **P**: I got myself a landline purely because then, when my mother and I had landlines at home she would complain all the time that it is expensive for her to call me on a mobile because her landline is a monthly thing so there's no running out of airtime. So I went on to get my landline so in the evening we can spend hours on the landline phone and in the afternoon, we are talking on the mobile phone by sms'ing because it is expensive . . . having both phones works better for me. Everyone is complaining about it you know and off-course it is expensive. So I have both. **F**: and u use both at different (times). **P**: so when I run out of, when I am soft locked and I run out of airtime (laughter) I go on to the landline and the landline also is on pay as you go it works better that way for me so I don't use it for Telkom connection so when I find myself say I am calling you in the evening I will ask you, do you have a landline and you say yes I would say okay fine let's call on the landline. **F**: so you do use it considering the cost and that. **P**: yeah I can even tell you which one is cheaper what time.

F: okay, does anybody here from time to time recently use a pay phone. **P**: what do you mean by pay phone? **F**: public phone. **P**: I have coz my battery was dead. **F**: so you used it as your last resort your phone was dead so you went to pay phone. **P**: yeah coz the queue was long to those community service phones. **F**: yeah and lots of people use that if you say there were long queues coz lots of people have mobile phones. (Another person).**P**: For me there was a time I really thought about what if you are mugged or robbed,

kind of cautious about stuff so I would have a card all the time because I know that Telkom service public phones which are using cards are a lot serviced than your coins coz the coins get robbed more so the card one you know you've got a card my thinking is should anything happens and they take my bag or something I should have a card with me so I will be able to make a call. (somebody else shouted) in your bag (Then everybody laughs). (She continues).

No I would have it somewhere I don't know (laughter) for instance I am in my car or I am having my bag and the next the car is not there but my bag is there is still have something that I can call with. Is still have to use to call with coz at least I should have 2, 3 cell numbers that I have it in my head, because I mean now some of us are lazy to memorize any number but there should be at least just one number that I would remember and just call.

(Another topic). I don't want to call 1023 they would want to go pick them before they help you. **F**: So that's a contingency so you only use it in the contingency. **P**: yes. (another person). **P**: I also use it little as well I must say really I use it more of a …. **F**: the pay phone? **P**: yes especially when I am calling somebody in Lesotho or Swaziland somebody in a long err…I think I manage to cut costs. **F**: okay, so you use it as a cost factor? **P**: yes. **F**: alright, what about Telkom access? Who has Telkom access at home?

P: I do. **F**: home Telkom access? And what are you using? 3G. **P**: nothing (laughter). **F**: you don't have Telkom? but you are dialling up? **P**: yeah dialling up. **F**: oh so you are dialling, okay. **P**: yes. **F**: and I mean when you are using it you quite cons…. aware that it cost is accepted. **P**: yeah cost and that. **F**: and you, is it your whole family using it. **P**: umh I'm just with my mother at the moment. **F**: okay, and your mother doesn't use Telkom or she does? **P**: no she doesn't know how to use it. **F**: does she have her own mobile phone? **P**: yes she's got a mobile phone. **F**: are there any other family members that might use your mobile phone? **P**: my sister. **F**: in the house? **P**: no not in the

house. **F**: no, okay, who..who..err..who uses your phone besides you if anybody? **P**: my wife and my children. **F**: your children as well, but your wife has her own phone? **P**: yes. **F**: The children have a small usage phone? **P**: the children from the children phone is just the normal mobile phone black and white screen and when we get home so they will try and get to my phone or my wife's phone so they can either check music or download games. **F**: just to get the high …(not clear). **P**: they don't download games without me knowing, I will see it from the bill. (laughter). **F**: so you got your phone sitting here so she has to pay for it and they just say can I use your phone? (laughter). **F**: umh just going back to the Telkom thing umh basically I am assuming coz I know some of your situation you know, everybody else has Telkom access at work or not? **P**: I've got it at home.

F: okay. **P**: I use Telkom for making long distance calls, I work from home quite well so I kind of save money from not using Telkom and the more I save I become happy. **F**: who else is skyping a lot, or use Skype? Anybody using Telkom connectivity to talk to people? Who is not using it because he's not aware of it? **P**: can I say I am not using it because I think it is something that is of lower quality if I may see it. **F**: okay. **P**: there are people who normally sent me some sms's, I don't like that, and I want somebody who can use her own mobile phone so I can see who is this person. (laughter). **P**: and then I also feel that I don't necessary want somebody who sent me a sms I need to talk to somebody, I need to hear your voice. (laughter). **F**: okay this become, the discussion we talking about is a voice to voice service but you using your computer. Okay, so it's a voice, but there are quality issues is that's is why I thought you were referring to it because some people are not quite happy about it but I think it has improved dramatically and it's efficient quality for you to use it for business purposes? **P**: yeah but it's not as good as fixed line but it can move to better and better. **P**: and you know the other problem Piet it's a person when response to the harder he has to shout and ear buds would….(Laughter).

F: so just to have a quick summary around the room, the primary purpose of your phone, would you say it's social or business or you think it's half and half? **P**: (about 3 people) it's both, both for both, mainly social .**F**: and the business? You do it at the office on a fixed line?**P**: Yeah I do it at the office. **F**: and the Telkom you using at home? Work or social?**P**: Social, one both, one personal, other both. **F**: mainly personal use, okay. Alright. **F**: I think perhaps when we finish if people wouldn't mind Lungi if we could get some sense for anybody whose willing to tell use roughly how much they are spending a month on mobile or whatever, doesn't need to get a name or anything but just to get a sense of what people using per month would be helpful but not essential. **F**: Is anybody who….okay we have said we mainly using it, mobile phones for voice and umh services but the use of the 3G for data? **F**: err..is anybody using the verbal phone to do banking? **P**: Yes. **F**: Yes, okay. And what you got to…how long have you been doing .**P**: (could not here the response). **F**: and it's a convenience? **P**: it is convenient, yes. **F**: yeah, okay, did you think about the time or money or you just generally ….(someone coughing). **P**: no it's quick service. **F**: so that's why am saying it's cheaper than obviously driving your car to the bank and …or it's just a convenience. **P**: yeah. **F**: so all of these? **P**: yeah. **F**: okay. **P**: (someone else) are you talking about phone banking or mobile phone banking or both of them? **F**: I am talking about mobile phone banking. You using it for phone banking? Or nor you using either your fixed or mobile phone? **P**: oh no I am talking it about my mobile phone. **F**: no that's fine, that's exactly what am talking about. So you are the only person here who is using either fixed or mobile banking? (coughing). **F**: who is Telkom for banking? **P**: (someone else) she just taught me of my legal experience (laughter). **F**: what legal experience are you going to it again? **P**: you know previously we used to work to the bank I mean now I am just putting my password checking my account and I know how much money I have on my account. (someone else). **P**; my two daughters use Telkom banking. **F**: are they doing it from a home computer. **P**: no from work.

F: oh from work, okay. Those of you who do Telkom banking, does your wives do it as well? **P**: yes. **F**: okay that's good. **P**: (someone else) I've tried it and it never worked. (laughter). **F**: you don't… Laughter. **P**: I could not get the password right. **F**: so it just got complicated, was just too much of a hassle? **P**: dialling up..(someone else) **P**: my bank was standard bank but I had a Ned bank account as well so for some reasons I couldn't get it to work so I tried it by phone and I would do Ned bank by phone and standard bank by Telkom. **F**: that's interesting and it's actually just a banking thing and not the communication side of things. (someone else) **P**: what I like about FNB is their in contact service so once the transaction goes through or if somebody tries to log on they send sms. **F**: actually you don't need to do mobile banking to do that, that's not because one use mobile banking but it's just a service, so how many of you are using that service? It's a service they offer if you have a mobile phone you even if you don't do mobile banking but are given notices of transactions. **P**: FNB does, discovery. **F**: all of them do now. **P**: send me a sms! (shouted), (laughter) **F**: yes. It does, I promise… (laughter)

F: Just tell me in terms of your usage, umh, are you…who is using a lot of sms, meaning I am assuming everybody is using voice and sms. No. lets go back a step there, who is predominantly sms'ing? **P**: me. **F**: why? **P**: call is much more than sms. **F**: so it's a cost factor, it's a cost factor, okay. And you would do that just a short information exchanging and that or do you have a long….(didn't complete the sentence) **P**: Yeah, sometimes long conversation they need to be …….(laughter before she could complete the sentence).(Someone else) and you confirm with a sms? **P**: yeah. **F**: and umh do you know how much you know you pay per sms. **P**: the thing is I am on pay as go. **F**: yeah, but I am saying the actual sms are you aware of the cost for your sms when you say it's cheaper than a phone call, do you know ho much you pay or you just know it's cheaper? **P**: It's cheaper (others are mumbling and talking at once) it's like 36 cents. **F**: (asking someone else) have you smsed or you just know is cheaper. **P**: yeah once. **P**: (someone

else) sms is the best way to party with your partner, then you communicate via sms (laughter). **F**: what you are saying there are kind of social purposes that you can sms for that you might previously not had done that, **P**: (everyone) yeah. **F**: again when you have to change your appointment you can use a sms to do that **P**: the main reason I am using sms for is when I am with the customer the phone rings and I cant answer the phone at that time so what I would do, I would wait until the phone goes to voice mail then I send an sms. **F**: that's using sms as a tool for business purposes and also it can be used for social. **P**: umh.

F: I'm just asking about the cost because very often people know it's cheaper but don't know how much cheaper it is. And also the amount changes from 71c to 86c. **P**: but if someone is on sms bundle it's cheaper (other) it's cheap to talk on mix-it as well. **P**: well we are not talking about mix-it, we looking at adults who are not into mix-it who just sms and if you going sms bundle like MTN sms bundle is R100 for 100 sms and 200 sms is R200 and 30 something cents per sms so it is cheaper. **F**: so just for the purpose of your calls you using it for business and some using some people are using it more socially, and umh you are using it for business and also you are using different mobile functions of data for different kinds? **P**: yeah are using in **F**: and you are using mobile banking, couple of people are doing Telkom banking? Are there any other services that you would like to talk about in terms of your usage of mobile phones.**P**: the next thing that I want to try to do is the webcam. …couldn't hear him properly (laughter). **F**: okay so you mean technology is quite important as per the security in terms of domestic security. **P**: yeah,

F: who actually surfs the web on their phones not on a data card. **P**: me. **F**: and your company pays your telephone bill. **P**: I would say the bulk of it. **F**: you think that affects the fact that you use it the way you do? **P**: yes well look the company has policies of what they have agreed to pay and I accept that

and sometimes my bill will go over that I pay the difference. **F**: well nobody else is using the mobile for surfing? **P**: I do. **F**: for what **P**: to check my yahoo. **F**: okay, okay, so you use it to check your email. **P**: yes. **F**: and you doing that with your desk of your 3G. **P**: no. **F**: how do you find the cost if you downloading .**P**: I think on average I have never received something over R150 bugs on my on the Telkom usage whether I connected on my computer or … just the Telkom usage. **F**: but you don't use it a lot? **P**: I do, which is quite strange because I actually thought it's going to be more. I guess it's because I don't download attachments. (Someone else) **P**: I use for …(not clear)……especially when I go to the mall and I find it's a long queue I just go in my car open my……(not clear). **F**: so it's kind of efficient. **P**: Yeah

F: what about missed calls, is anybody here who make missed calls? **P**: mainly to say something like you want to tell the person something and you would say, don't worry I will make a missed call to you. **F**: okay you using missed call to say something else? **P**: okay, all right. **F**: so and that's … do you …(not clear)…. **P**: I send missed calls to my sister, like now I know she's at work and I can give her a missed call. **F**: and she will surely call you back. **P**: yeah. **P**: (someone else) it's an agreement between me and whoever that person and I would say just send me a miss call, maybe this person earns more than I do and I know they are going be talking for hours, because I am thinking I don't want my phone to be cut off before month end. **F**: who would be that person? A group of people and one person.**P**: would be friends, a group of people, perhaps five people or ten people, but I would tell my mother to send me a miss call. **F**: is your mother working? **P**: yeah. **F**: but why would he send you a miss call. **P**: umh my mother is one of those people when they calling their finger is ready on the red button, she would just say what she wants to say, so as soon as they done she would say, okay if you would really would love to talk but you can call me back. I think she likes seeing airtime balance on her phone. (laughter). **F**: do you earn more than her. **P**: I think she is a spoiled mother, I spoiled her in the sense that I do things for her

and the fact that I earn more than her I would say okay ma I will call you. (laughter). **F**: did you make anyone a miss call? **P**: no just like I am on way someone to say I am outside the yard. (laughter) **F**: anybody else. **P**: when I realize that I am late somewhere and I am certainly about to arrive so I kind of make those people aware I almost there. **F**: you don't expect them to call you back. **P**: no I am trying to tell them am still responsible don't think that I am not coming. **F**: who is the great receiver of missed calls? **P**: me, **F**: and from whom do you get these calls? **P**: family (paused) (stressed) and some friends (Laughter) **F**: are they employed or younger than you? **P**: yes they are younger than me, **F**: okay (Someone else) **F**: your children? **P**: yeah if I do get a miss call and I don't recognize the number I will not call back because sometimes it's a wrong number. **F**: will anybody answer a miss call from the number they don't know? **P**: umh, we always sometimes do, **F**: for what, **P**: because sometimes you would think what if this person is sending you miss call is using somebody's phone because their phone is dead or what. (one guy) I always call back.

F: does anybody find that they can't use sms because the people they want to communicate with don't have phones or can't use sms. **P**: (a guy) my folks, **F**: Okay. **P**: Like it's a bit of a challenge, like my mom battles to get to messages. **F**: how are old are they, your parents **P**: just over 70. **F**: so they quite old. **P**: yeah **F**: okay, alright, but they just can't get to sms but they phone, but that's not a barrier. **P**: Yeah, yeah I got them a mobile phone and they quite comfortable with that (someone else) My mother and my mother-in-law. Previous candidate: to get them understand the green button, that's a challenge on its own. (laughter) **F**: (can't hear what the **P** was asking **F**).

F: umh, well yeah, maybe just on the service providers, different service providers, just want to know if has anybody ported or found a reason to port to another service provider because maybe the other one is different. (Noise and coughing) **F**: has anybody ported with number portability taking your

number to the other network. **P**: I just cancelled, the contract just came to an end but I wasn't aware that I had to write a letter to say I don't want to renew the contract so they kept on billing me on month on month basis until I called them and asked what was going on and they told me I have to send them a letter. It took me the whole month to send that fax coz every time I send it, it wont go through. **F**: so you were willing to give up you number just to get rid of the problem. **P**: Yes **F**: okay, alright. Would anybody else be willing to give up their number in order to (Interrupted) **P**: never, never I will put up with any cost, inconvenience …..(laughter) **F**: so this is the numbers for social and business ones? **P**: social and business as well. **P**: (someone else) also, these service providers also make it very difficult for you to leave, so the process itself takes time. (Someone else) and the benefits are much low, you know, the benefits are moving in terms of the like the package that I am on is really much low. **F**: so it's not like you've got these really different packages **P**: yeah and for me that is much convenient. **F**: has anybody moved or when they bought their children contract or anything consciously said I am going to put them…., you know, because of these on net discounts I am going to have my child/wife on the same network as me so that it becomes cheaper. Is that a conscious decision for anyone? **P**: I think mine was quite reversed, shows to make sure one was on MTN and one was on Vodacom in a case where network is not connected.

F: I want to speak about it a bit more because you do reflect some other stuff elsewhere where people indicate the reason why they (did not complete). I mean your security is quite of a big issue for you how you make your strategies in terms of your network connectivity.**P**: security and availability, I believe that I cannot make an excuse if someone cant get hold of me or I was unable to respond because of network availability so it's both work and socially. So I try to get away form blaming technology.**F**: do you, umh your phone your phone. . .is not being an issue that you feel I need a phone when I am getting home late or something like that?**P**: not really, not a problemC2:

safety.**F**: okay, how do you think, do you cover it at night?**P**: yeah I cover it at night when I am the airport? **F**: webcams or… (laughter) you are not being paranoid? **P**: there are couple of hijacking and access to 112 is not quite **F**: and you use that service? **P**: yeah. **F**: is that the find me service or emergency? **P**: emergency?

F: does anybody have the find me service for their children? **P**: quiet **P**: you know there's a flip side to that (laughter) sometimes one doesn't want to be found (laughter) **F**: you know the child has to accept the service, I go to my daughter's photo and I phoned her and I say are you willing to have your mother know where you are. (laughter). Yeah, then if you don't need security its not a major thing. **P**: (joking) I've been stuck on the highway, we have a puncture, tell security…(laughter) **F**: No. she doesn't do punctures.Lungi: maybe another question, does anyone have hands-free set in the car?**P**: my phone doesn't do hands-free. **F**: so do you prefer holding your phone? **P**: No I don't, I will leave it when I see police. (laughter) (Someone else) **P**; you mean just hands-free or you have to activate it. **F**: just hands-free. **P**: do you consider …… as hands-free when you drive? **F**: yeah **P**: I hate those things. (Someone else) look, the other ones those that really stuck in your ear is not as user friendly and umh you even if I have it I just… **F**: just in terms of the actual equipment you using are quite few of you are on the edge of GPRS on their phones mostly except mine. **P**: yes. **F**: tell me, having a camera on you phone a big issue or it just comes with the phone. **P**: small backup in my case. **F**: okay, you have a camera phone? **P**: I do but I hardly use it. **F**: and is a good, because some of them are really good quality and they take good pictures. **P**: No, I hardly use it, my daughter uses it. **F**: Bheki do you have anything else to cover? Bheki: I think the please call me service **F**: okay, the please call as opposed to missed call. Okay, one last thing, has anybody firstly receive please call me? **P**: Yes, **F**: okay, you receive and send please call. Would you send them again likely or you just give them miss call **F**: your sister, you sent her please call me? **P**: yes **F**: do you send please call on

different circumstances? **P**: I think they are very choosy on that because I look at who is actually calling even somebody who I believe he used to buy airtime but if it's my younger sister I will call her. Bheki: I think the other thing is airtime transfers **F**: okay, very important. Is anybody doing airtime transfers? **P**: once **F**: who you doing it to? **P**: my brother. **F**: and what? Is it under certain circumstances or monthly basis? **P**: its not monthly basis it is only emergencies or when he asked me send him airtime. **F**: that's very helpful. Bheki is that it? **F**: then anybody that want to say something? (Thereafter there is a NOISE but few people are talking) **END**.

FOCUS GROUP TRANSCRIPTS, RURAL LOW-END USERS,
VENUE: VREDE—NORTH WEST

DATE: DECEMBER 2007:

TARGET POPULATION: MALE PARTICIPANTS

Key:

F: Facilitator

P: Participant

TARGET POPULATION

The focus group was held at a house of one of the participants. The place was also considered viable for easy access and to make participants feel at ease.

This is a semi-rural area with a community of people that knows each other. Male participants were identified according to their ages. Participants ranged from the ages 19 to 67. All the participants were from Vrede although one or two were only around because it is holiday season.

In terms of occupation, participants of the focus group included 3 or four participants who were unemployed or had 1 part-time occupation. The rest of

the participants were still at school. The level of education High school and one tertiary level while two (54 and 67 years of age) had not attended school.

START:

F: Hi, my name is Mbo Maleka. I am from Jo'burg in Soweto. We are from Wits University conducting research on the usage of communications technology. So we just want to find out how you are using technology and how it has impacted on your life and family. I am travelling with a team of two ladies and a Male colleague, I am sure you noticed the ladies Lungi and Boitumelo who will be outside until we finish group discussion. The other gentleman is Tebogo and this is his family's house so we are grateful for him to allow us to use it for this research. Hope that you feel free to talk at will and not get intimidated because we are basically just doing research all over the country to find out how you use technology or how you access communication technology so that we can assist government to improve access to these technologies so that you can also get empowered by being able to contact family members and get information that can help improve your life. So I am going to ask for a favour that we start by introducing ourselves by saying your name, whether you are married or not, where you live and anything interesting about you. Is that fine. Lets start with you **P:** I am P: I live here in Pella, I am not married and I do not work. **F**: You work. **P**: No. **F**: Oh you don't work. Just one last thing before I forget, just remember we are recording. We are not recording because we want to get you arrested or anything it's just a matter of saying we must record the conversation so that we can be able analyze data and finish our research so don't feel threatened by it or if you feel uncomfortable with it. Let's go ahead my brother. **P**: My name is P:.**F**: Even an African name is fine (laughter). **P**: My name is P:; it's my only name. I am not married, I don't work. **F**: Did you finish schooling? **P**: Yes. I finished school this year, Matric. **F**: And you live at home. **P**: Yes, with my mother and father. **P**: I am P:, I am not married, I do not work and I am still

a student. **F**: You attend school where and which grade. **P**: I am in grade 11 at a local school. **F**: How old are you? **P**: 21 years old. **F**: 21. Next. **P**: My name is Mponeng and I stay at home, I don't work. **F**: You are how far with your education. **P**: Grade 11. **F**: Grade 11, high school. What is your name again, P: I said the name tags must face this way so that I can see your names otherwise I do not know who I am speaking to. **P**: I am P:, I am still at school, I am not married, and I do not work. **F**: Where do you attend school, around? **P**: Yes. **F**: What grade? **P**: Grade 10. **F**: You are in high school. How old are you? Finish filling in your details P: then we will ask you questions. **P**: My name is P:, I am still at school, I am not married, I finished my Matric in 2004, and I currently attend school in Tshwane. **F**: So you are in tertiary? **P**: Yes. **F**: What are you studying? **P**: I am studying engineering. **F**: Electrical, civil? **P**: Mechanical. **F**: Mechanical, so how many years have you been studying. **P**: 2 years. **F**: How old are you? **P**: I am 21. **F**: Ok sir now we come to you, what is your name and surname? **P**: P:. P: Mesono. (Laughter). **F**: How old are you? **P**: I am old. (Laughter). **F**: I know sir but can you tell me whether you are around 50 or 60. **P**: 53-54. (Laughter). **F**: 53-54. Are you married? **P**: Yes. (Laughter). **F**: Are you working? **P**: No, I don't work. (Laughter). **F**: Can I ask for one thing, please because this thing is formal so when we laugh I will pick it up on the recording and I will not be able to hear what he is saying. Lets respects each other and listen to what the other is saying. Group. Ok. **F**: Lets all listen to what somebody is saying because this is a group discussion; it's not about humiliating people. It's just about us discussing how you use technology. Lets concentrate for an hour it's not much. Thanks guys. Do you work sir? **P**: No. **F**: What is your level of education? **P**:Primary

F: Primary, no that's fine sir. **P**: When I speak you must write what I am saying. (Laughter). **F**: Let me explain to you sir, we are recording here. **P**: Why are you not writing? (Laughter). **F**: The recorder is on. I am going to write

afterwards, I can't write now because I can't write and ask questions. I understand sir Please can you do me a favour and write your name down.

P: No I will not. (Laughter). **F**: Ok fine then just say it again. **P**: No I will not. (Laughter). **F**: Please just tell me your name again so that we can start again. You said your name was. (Laughter). **Group**:Your name. (Laughter). **F**: No guys. **P**: (Laughter). **P**: Your surname? **F**: Please tell me something are you married? **P**: To who. Did you marry me? **F**: Look at me? (Laughter). **P**: My son is flying planes, I am educated. (Laughter). **F**: Are you finished? **P**: No I am still going to speak. (Laughter). **F**: I understand. Please can you talk to me because I am the one who invited you? You were invited here to contribute to our discussion. **P**: I will listen

F: Please can you concentrate on me and ignore the others. Will you listen then? **P**: Yes there are two of us in this. (Laughter). **F**: Please can you listen to me and when you answer please answer me and ignore the rest of the people here because I do not want to lose the discussion because you want to fight with these boys. **F**: Do you live with your wife? **P**: Why are you asking about my wife? (Laughter). **F**: Guys please behave or else I will have to ask you to leave. **P**: Don't ask about my wife. (Laughter). **F**: I asked you whether you were married or not and you said you were married. **P**: No I am not married. **F**: Are you married, divorced, never married, I am trying to understand. Who do you live with? **P**:

Wait a minute can I ask you something? (Laughter). **F**: Just make it brief or else I will cut you off. **F**: ask **P** to leave the session because he is too drunk to participate and add value to the discussion.

F: We can continue but I can't see all your names, Sir can you tell us your name, surname, where you stay and whether you're married or not.

P: My name is P: **P**:, I am married and am 67 years of age. I currently stay with my family but not my wife and children because they stay at my other

house in Luka. I did not go to school but have recently retired because I am too old. **F**: Where did you work sir? And why are you not staying with your immediate family?

P: I use to work at the mines and decided to take pension so I could take care of other things. My wife still works and has to take care of our house in Luka. **Group member**: What are we discussing by the way? **F**: As I mentioned before, we are discussing a lot around issues of access and usage of communications technologies, including Mobile phones. Speaking of, do you all have mobile phones? **P**: No. **F**: Ntate P: do you have a Mobile phone? **P**: Yes I have. **P**: I do. **P**: I have. **P**: I have. **P**: I don't have. **F**: And you? **P**: I have. **F**: Lets start with those that do have phones. How did you get your phones? **P**: We bought them. **F**: You bought them. You bought them yourselves? All of you?**Group**: No. **F**: Mphoneng where did you get your phone or your parents bought it for you? (Laughing). **P**: No. **F**: Even you, P: and Mphoneng. Those that don't have, P: why don't you have a Mobile phone. Is there no one that can buy it for you?

P: No. **F**: Do you want a Mobile phone? **P**: Yes. **F**: Did you buy your Mobile phone yourself? **P**: No, my son bought it for me. **F**: Thanks. Now coming to you P: have you ever had a Mobile phone? **P**: No. **F**: You have never had it. Do you want one? **P**: Yes. **F**: So because you don't work you cannot have one? **P**: Yes

F: Don't you have a girlfriend that can buy it for you? (Laughing). **P**: There is no one that can buy it for me. **F**: Have you ever asked for a phone? Or tried saving for a phone?**P**: There is no one I can ask to buy me a phone. I do no work so I have no money to save for a Mobile phone. **F**: do you have access to a phone from a friend or a family member? Where do people call you? You don't have Telkom phones around here? No one has a Telkom phone?

P: There are Telkom phones but they are very far away. **F**: I meant does anyone have a Telkom landline at home? **Group**: No-nobody has a Telkom

landline phone around here. **F**: Ohh, No one has. Why don't you have Telkom lines at home? **P**: The whole area does not have Telkom lines, I don't know why. We have never had Telkom lines.

F: There is no Telkom service around here. Are there public phones around here? **P**: Yes there are. **P**: There are phones but there is only one container at the crossing and its quiet far. **F**: Where is it? **P**: At the crossing about 1 to 2 kilometres away. **P**: But it's too far for me. **P**: And MTN. **F**: So P in order to get to the public phones do you have to get on a taxi, horse. (Laughter). or can you walk there. Is it not far? **P**: No it's not too far to walk. **F**:

So it's not too far that means you can walk there? **P**: Yes it's not so far. **P**: It's far-I am sick so I can't walk for long distances. **F**: So lets hear from you P: because you do not have a phone, when you need to contact someone do you go to the public phones? Or do you borrow a friend's phone lets say you for when you are not at home? **P**: Yes. I have to go the public phones to make all my calls because I do not like to ask from my friends and family because they are always complaining about how expensive airtime is. I prefer to use a public phone. **F**: Where do you get the money to phone if you do not work? **P**: From this and that, nowhere in particular? **F**: This and that you are referring to is it all legal? (laughter). **P**: Of course. **F**: So you go to the public phones. If they want you then how do they contact you? **P**: On my brother's phone. **F**: Your brother's phone. **F**: So your brother does not have a problem with you receiving calls on his phone. **P**: Not that I know of. (Laughter). **P**: comes back to the room. **F**: Ntate Chaba, I hope this time you will let us do the asking and you respond because it's extremely important that we get the information we want, so please I ask that you pay attention. **P**: Yes, Isn't it that you called me to take part so I will (noise). **F**: Thank you so shall we continue--Ntate P: how about you, why do you have a phone and how does it help you? **P**: Well I bought my phone some years back because I always want to be in contact with my family. My children and wife can get a hold of

me anytime when they need me. I live far from them so they miss me. I also miss them. (noise). When I have money from the part time jobs I get from around here, I buy airtime with some of the money so that I can call them. I sometimes buy airtime for my wife so that she and the children can call me.

F: Thanks sir, and you P? **P**: When I want to contact anyone I use the public phones or I steal my mother's phone and make my calls when I know she has airtime. She does not want me to use her phone because she does not want to share her phone with children because they break them or as she says, use up her airtime. (Laughter). **F**: Why is she like that? Did you or your siblings break her phone before? **P**: Yes. (Laughter). **F**: So she is just scared that you break her phone again. **P**: Yes. **F**: So what happens when someone wants to call you? Where do they call you? **P**: They call me on my mothers phone. **F**: Ok. When do you think you will be able to afford a phone? **P**: I don't know. **F**: Ntate P, why don't you tell us about your usage of the phone since you don't have one. **P**: Listen, I don't want a phone-there is no need for me to have one-and why do you ask me? Will you buy me one? (laughter). **F**: No of course I wont, but it is important that I ask everyone in the room as it is part of the research-do you have loved ones that don't stay with you, perhaps that stay in Jo'burg whom you would like to contact? **P**: Yes I have family there but I always insist on them coming here because it is their home. My son stay in Jo'burg and his mother always calls him. I don't need a phone.

F: Ok. Those that do have phones what do you use them for? Lets ask P. **P**: I bought a phone because I live in Pretoria and my parents are here. **F**: So you are at school. So they contact you on your phone. You also use it for girls (laughter).Do you have a girlfriend? **P**: Yes. **F**: Do you phone your parents or is it them that are always calling you? **P**: I also phone them. **F**: who calls the most, you or them? **P**: They call me a lot too. **F**: And why is that? **P**: Because they can afford to call me more than I can call them. I am just a student and I don't always have airtime. I do try to call my girlfriend a lot though. **F**: Thanks

P, and you Mpho. Why do you have a phone? **P**: I have to have a phone because my farther lives far from here. He lives in Krugersdorp and I live here full time. **F**: Ok. So you use it to talk to your father? **P**: Yes and I also use it to talk to my other family. F: And your girlfriend as well? (Laughter). **P**: When I have one (laughter). **P**: Yes I don't have one currently. These girls are costly. (Laughter). **F**: I see. P: I don't live with my parents so I use it to keep in touch with them. **F**: Is that the main reason why you have a phone? **P**: Yes. **F**: Ok. **P**: I live with my parents but sometimes they go away and then I am left alone. I also use it to talk to my sisters and my girlfriend.

F: The main reason for having mobile phones is to keep in touch with family and so on. So do you think it's very important to have a Mobile phone? **Group:** yes. **P**: Yes it is. The post office loses letters so writing letters is no longer an option. **P**: It is very important. **F**: I will give you a chance Mphoneng, why do you say it is important to have a phone? **P**: A phone is very important for me personally. **F**: So if you did not have a phone you would not be able to live? **P**: I can live but there are a lot of things that would not go smoothly. **F**: Like what? **P:** I am a jack of many trades. (Laughter). **F**: you do not have a cell but yet you are adamant that a phone is very important, why is that? **P**: I want to be able to phone at night and not rely on public phones when I cannot use a family members phone.

F: Is there anyone who uses a phone for business purposes? **Group**: Yes. **F**: What kind of business? You use it for business? I mean is there anyone that uses it to make money? Anybody? **P**: I sell lose cigarettes at campus. So I get calls from some students wanting to find out where I am because they want to buy lose cigarettes. **F**: Why sell cigarettes? P: A pack of 20 is expensive and my lose cigarettes are cheaper than the lose ones sold in the cafeteria so I do have people calling me wanting to buy-it is a means for me to make extra cash, I also sell sweet and gum-do you want to support me? (laughter). Just kidding. **F**: Is that allowed? (Laughter). **P**: Definitely not.

F: I am assuming you all have access to a phone whether it is a public phone or private phone even you? **P** and **P** when you need to use a phone you have access to one? **P**: Yes. **P**: Yes. **F**: Do you use all the features on your phones like your camera or to download music, Mxit (do you know what it is)? **P**: Yes. **P**: No, I only use my phone to dial and receive. **F**: And you **P** can you do all those things? **P**: Mine does not even have a camera. **F**: Would you like such a feature? **P**: Yes as time goes but for now it is not a necessity. **F**: P the day you buy a phone what kind of phone would you want? **P**: A phone with a camera because I like taking photos.

F: Why, do you think it is important to take photos? **P**: It is important. **F**: More than making calls? **P**: Phoning is also important. **F**: To call as well. When you do phone. Lets all participate please. I want to know who you phone, for what, who do you call the most and why do you have a phone, do you need to have a phone or can you survive with phoning from a public phone because it is not a necessity? Lets start with you P. **P**: When I apply for a job I put my Mobile phone number on the c.v.

F: So that they can contact you. So you are looking for work while at school? **P**: Yes. **F**: P you said you use a public phone to make your calls I want to know whether it's better for you to use a public a phone, who do you phone and why do you call them. I want you to explain, I don't want to ask you questions I just need your perspective regarding phones and where do you think the world is going. Can people survive without phones, are they very important? **P**: People can survive without phones, I have. I do know that life would be easier with a phone because then I will not have to wait for my mother to come back from work so that I can receive calls and I will not have to spend my R2 at the public phones and I can phone whenever I want. **F**: When you go to public phones that do you phone? **P**: I phone family and friends.

F: Who? I did not hear what you said. **P**: Family and friends. **F**: Family. The important thing to you is to call your family and friends? **P**: Yes. **F**: Lets hear from you P. **P**: I use a public phone when I do not have airtime only. **F**: Only when you don't have airtime? So for you a public phone is a matter of convenience when you have airtime you don't go to public phones otherwise you use airtime to make call? **P**: Yes I use my airtime. I don't like public phones because you sometimes cannot even hear what the person on the other end is saying because the lines are so bad.

F: P you don't have a Mobile phone what is you view when it comes to public phones? **P**: Public phones are fine. The only thing I hate is that sometimes when I go to the phones you find that there is a lady at the phones who shouts or talks very loud and you cannot hear the person you are speaking to. (Laughter). **F**: Can't you ask them to speak softer? **P**: How can they hear you when they are screaming at the person they are talking to? (Laughter). **F**: P, who do you usually phone? Is there a pattern? Lets take your last 10 calls for example. **P**: I only go to public phones when I don't have airtime. I go to a public phone call my friends. **F**: So you can say your last 10 calls were mainly to friends. **P**: Not really. I also call my family since I don't live with them.

F: Lets say out of the 10 calls maybe eight were to friends or family? Is that a phone ringing? So who is calling you now? (Referring to P:). **P**'s phone is ringing. His ringtone is a song from the Temptations-he walks out. **P**: That's a ringtone for ladies. **P**: That was my friend calling but I cut his call. **F**: Thanks for that. **P**: It's because I am busy right now. **F**: So it's mostly your friends that call you. **P**: Yes and no but that call was from a very good friend of mine in PTA. **F**: That is the person that you phone a lot. You phone him mainly to find out where he is so that you can meet

P: Yes we call each other a lot. He was away so maybe he called to find out where I am. **F**: So your calls are mainly social calls? **P**: Yes. I do not work so they can only be social calls for the time being. **F**: Do you all buy your own

airtime? **P**: Yes I do. **F**: How much do you spend per month? **P**: You mean on airtime? **F**: Yes. You spend a lot on airtime? **P**: I spend a lot I can't even calculate the amount because I recharge a lot. **F**: So when you get money you usually spend it on airtime? **P**: Lets say for example when I get R50 I would take out R15 for airtime. **F**: You make sure you buy it. **P**: I make sure because I want to be able to phone. if you were to give me R50 I would make sure I buy airtime. I use a lot of airtime especially during weekends. **P**: My family spends a lot of time away from home so I use my phone to keep in touch with them while they are away. **F**: Did you buy it yourself? **P**: Yes. I saved money from part time jobs I do at home. **F**: Lets hear from you P. **P**: I have a phone to keep in touch with people. **F**: So it is always on? **P**: Yes but not now it's off because the battery is flat. **F**: Where do you charge your phone and do you load airtime? **P**:

I charge at home mostly and yes I do load my own airtime. **F**: Are you then able to talk to people or is it just to keep the SIM card active? **P**: Yes I do make calls but it's all limited to how much airtime I have at that moment.

F: How much do you spend on airtime per month if I may ask? **P**: Per month I spend +/- R100. **F**: +/-R100. Is it money you have worked for or is there someone who gives you the money to buy airtime. **P**: I get money from doing errands at home and helping around the community. **F**: What kind of help are we talking about? (Laughter). **F**: No I am serious gents, I mean there's many types of help one can provide but it is important I get some sense what you are referring to. P: well our community has many old people whom, I sometimes do gardening for them or they also send me on errands, at least I get some money, which I can support, my habits . . .(noise from group).

F: Oh I see, would that include girls and beer? (Laughter). **P**: Yeah you can say that-on weekends I like to go out and have to make calls for arrangements-or when we go to play soccer and so on. **P**: I don't have a phone. **F**: I know you don't have phone but you use a public phone. **P**: I use it

to call my brother, mother, family and friends. **F**: Ok. So who do you usually phone, I mean the most? Who did you call on your last 10 calls? **P**: I called 3 people. **F**: So you use any public phone you don't care whether it is Cell C, Telkom you just phone? **P**: No. **F**: So you do chose first. Which do you prefer and why? **P**: Cell C. **F**: Why Cell C more than Vodacom or MTN. **P**: It is reasonable compared to the others. **F**: So it is cheaper. Let me ask this in general then, do you think the cost of phoning in S.A is high or low? Can you afford it or not? **Group**: Everything is expensive these days. **P**: I can only afford MTN only. **F**: For you MTN is the best. **P**: Yes, it is the best. P: why does it sound like you are complaining, what is wrong? **P**: No, I am not complaining. **F**: You said it's high? **P**: No, I never said it was high. It's fine. **F:** So it's fine, you can afford it. You do have a Mobile phone? Those that phone from public phones do you think it is high or low? How much do you spend? P: how much do you spend? **P**: +R1.00. **F**: So do u think that is reasonable. Do you always have a R1.00 to phone? **P**: Yes but it doesn't mean its cheap, with R1, I can only say what I want and then that's it. **F**: So do you think it is cheap or expensive for you? **P**: Cheap only if I am able to get the message across-so if the other person on the other side decides to ask questions, then I have a problem and I get cut off-its sometimes embarrassing-especially if I want to greet my girlfriend! **F**: So you think it is cheap. P: what do you think? **P**:

I think it is expensive? **F**: So you think it is expensive. So how much do you use when you go phone? How much did you spend on your last call? **P**: R4.00. **F**: Out of that R4.00 were you able to speak for a long time? **P**: Yes. **F**: So you were able to say everything you wanted to say? **P**: Yes. **F**: So then why would you say it is expensive? **P**: I use all my money-its usually all the money I have and end up not being able to even buy a cigarette. **F**: So you used your last money to phone. You mentioned that Cell C is cheaper do you think it would have been more expensive if you had gone to Vodacom or another network? **P**: Yes.

F: How long do you travel to get to the Cell C public phones because I can see you like Cell C? **P**: A travel a long distance. **F**: Do you know about email? **P**: I know email. **F**: Do you know about the Telkom? **Group:** Yes (Ntate P: asks (what?). **Ntate P**: I can see that you are puzzled, the Telkom is the new form of communication that people use, its like sending a letter via post but except that the mail gets there in no time. These days people even use their mobile phones to access the Telkom so that they can communicate with loved ones, pay bills, download music and get any information they are looking for. **P**: That is not for me, I am comfortable with just using the phone to call and receive calls, I cant even write so I cant use the mms, sms, what do you boys call it? **Group**: (laughter). SMS. **P**: Yes that, my children sometimes send these pls call me and have to rely on these young boys around to read what the message says for me. **F**: mhhm, I see sir, so some of you know the Telkom. So you understand what email is. Those that have phones do you use your phone for email. **P**: I have never used the email on my phone. **F**: Would you use it if you understood it? **P**: Yes.

P: Yes. **F**: Those that use public phones do you know email? **P**: No. **P**: No. **F**: So you don't know email. Who knows about Mobile phone banking? Do you know about it? **P**: Yes.

F: Can you please explain it so that everyone knows what it's about? **P**: Mobile phone banking is when you receive an sms regarding transaction that take place on your phone. **F**: That service is called in contact. **P**: In-contact. **F**: It's just a way of monitoring what is happening in your account it is not really Mobile phone banking. Mobile phone banking is something else. **P**: I agree. **F**: Mobile phone bank is linking your airtime to your money. You can do transaction from your phone using virtual money. **P**: So that they can load airtime for you. **F**: Airtime can be loaded but that is something else. You can pay your bills using a Mobile phone. **P**: Is it like when you owe money to places like Curthbets. **F**: Its virtual money that works on a phone. **P**: From the

bank to there. **F**: It goes to the Mobile phone. If you want to pay Truworths for instance, you punch in the amount you want to pay then it will be transferred to their account. **P**: It goes into their account **F**: Yes. Its virtual money so it eliminates you having to go and deposit directly at the bank. Infact, the Mobile phone company becomes your bank in a way and you would not need a separate bank account from you Mobile phone account. What you were referring to just notifies you about the transactions in your bank account. This one is based entirely on a phone. For those of you that work you can be paid using Mobile phone and it will come through as airtime, which you can use to phone or spend on something else just like you would spend hard cash or a credit card.

P: I used to work at Impala and I used Teba bank. **F**: What is Teba? **P**: It's a bank. When money is paid into the account you do not get notification of transactions.

F: Does it use a card? **P**: No it uses a book. **F**: So you use that book to withdraw money. **P**: Yes. When you want money you have to have that book. **F**: Does that bank still exist? **P**: Yes it does. I changed banks. **F**: Is there anyone else that has a bank account? **P**: Yes.

F: `Where are the other two guys? **P**: They went to smoke. **F**: Please call them. P: lets continue with you. **P**: No I don't have a bank account. **F**: Do you have an ID? Why don't you have one? Is it because you don't work? **P**: Yes. **F**: Is there any particular reason why you get limited using your phone? Do you think you are using your phone to the maximum, those that have phones? You don't have a problem with the way you use a phone? You would like to call more? **P**: I would like to call more the problem is money.

F: Someone mentioned Mxit; can you please tell us what it is and what you use it for? **P**: Its me, well in Jozi we use it a lot cause its cheaper, its about 2cents to send an instant text message and you log in forums to chat to people you don't know and some of course that I know. I like it because it

keeps e busy when I'm bored and I also use it to check out girls. **F**: Wow, that seems very creepy, you talk to people you don't know and even look for girlfriends? Aren't you scared that it will bring you bad company? **P**: not really, I mean home is too far and I just love meeting new people, and its not everyone I text to that I must meet-it depends if we have good conversations and if its a girl I usually ask for photos before I meet with her.

F: I must say it has been going good till now! I am going to ask more personal stuff now, hope you don't get intimidated or scared to say your piece. Does anyone in the room-maybe let me ask this way-has anyone bought a phone for his or her girlfriend/wife/friend? Silence. **P**: Like I said, I bought myself a phone and was then forced to buy for my wife because she threatened to take mine (laughter). **F**: Ntate P:, what do you mean? Was she going to take your phone if you didn't buy her one? **P**: She asked me why I dint buy her so she thought that I was having an affair and that is why I didn't buy her one-why would I need a phone if she doesn't have one. **F**: I see-it makes sense though, did you have a problem with that? **P**: no I didn't, its just that I did not think I would have to buy her that soon-anyway its fine now because she has one and she buys herself airtime.

F: what about the others, have you bought for your girlfriends? What about airtime? **P**: I buy airtime for my girlfriend when I can. The phone, she has had even before she met me, I don't know where she got it! **F**: Anyone else? **P**: Well my father buys me airtime every month so when I have spare money, I buy my sister or girlfriend. **P**: I helped my girlfriend buy her phone; a guy from around had just bought a phone and was selling the old one for R300. She had no phone so she kept asking me when I would buy her one, she gave me R100 and so she expected me to give her the rest of the money to buy the phone. Hey, I had no money but had to make sure otherwise I would have lost her, plus she's hot and everyone wants her (noise and laughter). **F**: So how did you raise the money? **P**: I had to do some jobs around as usual and

just gave the guy R200. He kept the phone until I gave him the rest a month later. **F**: Did you have a problem with buying your girlfriend a phone, you don't seem too happy about this story?

P: I don't have a problem. **P**: When are we finishing? I have to go now. **F**: We are almost done sir, just let me make sure that you have answered all my questions.. . Mhmh lets see. OK it seem I have gone through all the areas, maybe you Ntate P:, do you give your wife or children to buy airtime? **P**: why do you ask? Yes I buy my children airtime but I don't know who they call. **F**: Thanks Ntate, Anyone else have anything else to tell us before we rap up? Quiet

F: Thank you very much for all your inputs, like I said the information is going to help the country in many ways and soon you will notice the prices for these technologies going down because they play an important role in our lives, daily. We are going to give you a token of thanks of R50 on behalf of WITS University, I hope that you use it wisely, like don't buy alcohol, at least buy food or airtime so you at least see what you spent it on.

Your input is very important to us and will go a long way. Thank you very much. Tumi, can you please prepare the receipt book and the money please. And you don't have to tell anyone that you received anything because then we will not be able to leave the area! (Laughter). Ntate P, you are free to go as soon as you are done with Tumi neh. **Group**: Thank you very much.

END.

FOCUS GROUP TRANSCRIPTS: RURAL USERS
VENUE: VREDE, NORTH WEST

DATE: DECEMBER 2007:

TARGET POPULATION: FEMALE PARTICIPANTS
Key:

F: Facilitator

P: Participant

Target Population

The focus group discussion was held at a house of one of the participants. The place was also considered viable for easy access and to make participants feel at ease, Vrede is a semi-rural area with a very close community of people that knows each other. Only woman were invited and they were identified according to different ages. Participants ranged from the ages 18 to 74. All the participants were from Vrede. Occupation wise, participants of the focus group included woman who had part-time employment and volunteers. The rest of the participants were unemployed. The level of education for the ages between 34 and 58 is at the tertiary level, and ages between18-24 participants were still at school and tertiary.

The focus group comprised of participants that owned and used mobile phones on a daily basis.

START:

One on one interviews

Four individual interviews were conducted to discuss issues that participants were obviously not comfortable talking about in front of their neighbours.

1.1. Interview with Gloria (49, Married)

F: Sometimes it is not easy to ask personal questions in front of people. I just need to ask you a few questions. Have you ever used your phone for emergencies? **P:** [Unclear] No…**F:** Let's say for example your husband drinks and he is abusive when he is under the influence and you feel you should protect yourself using a Mobile phone? **P:** Like when your husband does not treat you right at home. He does not give you money and he has an affair with someone …… **F:** What if he threatens you would you rely on the Mobile phone to call for help? **P:** If things are like that….. but I am not saying that happens to me ….I would wait for him to get drunk and fall asleep then I would hit him too. My husband and I are happy. He does not drink or smoke. He is home as well because he is not working at the moment. He works part time like me. **F:** Where do you work, is it around here? **P:** Yes I work at Madikwe Cecil in Rustenburg. **F:** Is it a firm? **P:** Yes it is a firm…it is very useless..I have to pay transport out of my salary that which costs R250 per month. I work for very little as a mother. **F:** How much does your husband earn? **P:** He also does part time jobs where he does construction; he's money is very little. **F:** He only has money when he works. Sometimes he does not have any money. **P:** Yes, sometimes there is no money at home that is why it is such a problem to buy airtime…**F:** Thank you very much Mam Gloria. Please wait for me in the house and call Hana for me please…

1.2. Interview with Hana (34)

F: There are some questions for individuals, which I did not want to ask you in public… The father of your child …does he visit often? **P:** No…[shaking her head] only once a year. **F:** Does he abuse you in anyway? **P:** I attended a funeral in Hlokweng not so long ago…and I met with him there, he then wanted to force the issue that him and me are still in love. He spends a year without coming to see me or some months then when he comes he expects to find our relationship the same way as when he left. **F:** Do you think you can

use your Mobile phone for protection if he threatens you…eh during one of his visits… **P:** He has not done that, but I normally don't have units therefore I will not be able to use my Mobile phone…. I would most probably hit him myself…you see they train us at the SAPS. **F:** Good for you Hana…. As a reservist do you earn a salary? **P:** Sometimes, I do not know how they do this, this year I only got paid about three times. I have not even baptized my child who is now 5 years old….**F:** How much was it? **P:** Enough to buy groceries about R700. **F:** Who is helping to buy your airtime? **P:** I am involved with a married man, he buys me airtime. **F:** Does he control who you should call? **P:** He never gives me problems, he is very nice. But I use the airtime to call the other fool (father of her child). **F:** Do the men around here beat their women or what you do when they come to you as a reservist for help? **P:** I work with those issues at work. There are people women that are being abused some of them do not report the abuse. When they come to me for help we use anybodies phone that has airtime. **F:** Don't you think that woman here do not report cases because there are no fixed line phones where you can use toll free numbers. **P:** That is another reason. Sometimes it's because they do not want to go to court. **F:** Thank you very much for being so open with me, please wait in the house.

1.3 Interview with Nancy (24)

F: Do you sometimes think that your Mobile phone can help you in a situation where someone is beating you? I know that if someone tries to hijack me I have numbers that I have programmed on my phone which I will dial in an emergency. Don't you think like that sometimes? **P:** My boyfriend doe not beat me, he is very nice. **F:** Do you think a Mobile phone can be useful when you find yourself in danger? **P:** No I do not think so…but I keep my siblings number on my phone in case of emergency. **F:** Your boyfriend pays for your phone…. does he not give you limits as to how much you should spend in…for instance in a month? **P:** No, he is a nice man, [smiling] maybe

because he is not from here and I see hi, on month end. **F:** You are a lucky girl…. look after yourself okay and thank you very much for being open with me. Please wait for me in the house…. Hmm…please call Mam Nono for me.

1.4 Interview with Nono (58)

F: Is there a lot of abuse here in Vrede...? **P:** There is a lot around here….**F:** Where do these men stay? Do they also abuse children? **P:** They live here. There are men who abuse children, and sometimes they abuse their own children. Last week another man was arrested because he raped his own child and the mother has been affected mentally. **F:** Phew . . .that bad…. How was the crime reported? **P:** When I saw the child it was too sad. Someone called the police. **F:** Using a public phone or Mobile phone? **P:** A Mobile phone…. **F:** What do you do when there is no airtimes are other people willing to lend theirs? **P:** Yes always… I have a child who is also a reservist and people come to my house late at night looking for help. Hah…Hah…. people do not understand that he is only a reservist; they think he is the police. **F:** Are there a lot of reservists here? **P:** There are lots of them. Even Hana is a reservist…. **F:** So people rely on them a lot? **P:** Yes, they do rely on them a lot. They see them in their uniforms and think they are the police. They report crimes to them. **F:** Do people use public phones for emergencies? **P:** At night they are not available… The owners of the public phones lock them…. they are not really public phones like the ones that you find standing alone in the streets. **F:** We are basically done Mam Nono, and thank you for the information you have just given me ….you know people are not free to talk about these things. **P:** A lot of them in here [pointing to the house where discussions were taking place] do live with men. They live with their boyfriends and that is where you find a lot of abuse. **F:** I thought so…. Thank you very much Mam P…please wait in the house for me I am coming just now.

END.

FOCUS GROUP TRANSCRIPTS: URBAN USERS
VENUE: DELFT, CAPE TOWN

DATE: APRIL 2008:

TARGET POPULATION: FEMALE

Key:

F: Facilitator

P: Participant

Target Population

The focus group discussion was held in an area classified historically as a 'Coloured' township on the Cape Flats 50km outside of Cape Town. Consistent with the Apartheid trends, this township is one of the many that appeared as a result of forced removals by the Regime of non-Whites from the Cities.

Most participants of this FGD had cellphones and or prepaid TELKOM/fixed line. Only a couple had TELKOM lines only. There were only two married participants and single participants were dominant with a few divorcees. Age range was between 17 and 65 years. Most were unemployed and/or housewives with the exception of a few who were marginally employed and poor. The preponderance of single-headed households seemed to be the norm.

Of the married women, one had no Cellphone nor TELKOM line while the other had both Cellphone and TELKOM pre-paid line.

One woman who was marginally employed was a community worker (anti-drug campaigner) mentioned she was seldom paid but usually received airtime from the courts to compensate for her telecommunications expenses..

All but one, the youngest in the group, had children and a few had grand children. Some of their children were employed and supported the

households financially. Some households were battling drug abuse by their children. The entire community was battling other social challenges such as gangsterism as is common in the Cape Flats.

Illiteracy was also observed as present within the participants and therefore inhibited the extent for usage of cellphones and ICT's in general.

START:

F: Women might have more phones or fewer phones than men. Delft might have more phones or less than Mitchell's Plein, or something like that. Ok, well actually don't want to go to such a low level, we actually want to concentrate on a national level. So we are looking at other differences. Why does that income group have telephones and the other have not, etc. So that is the kind of research I am interested in, and I'm going to ask some general questions just to get going and then I'm going to ask you individually for your response to certain things. If you are not sure of all, or even if it is not directed to you, if you cannot follow it, then just stop us and we can take some time and go back and explain, ok. So before I start, I would like to go around the room; we meant to bring the labels; but if you could just write your name down there, so each time you speak I don't have to ask you for that again. I want us to make quiet sure that we have a proper spread, as this is a study of women usage of telephones and what we need make sure is that we have got basically between the age group of 18-70. It's important that we do not have one group from the same age. Can you tell me if any of you are related? How are you related? Ok, nobodies related. Ok, this is a daughter; this is your daughter. We just need to know that there is a relationship there. Perhaps if you can just start and say who you are, and just briefly say, "I work or I'm a housewife", so description of you.

P: Good afternoon, I'm Heather/Razia Williams and all my life I have embraced Islam. So, my ID still shows Heather Williams. **F:** But you call yourself Razia Williams? **P:** yes, and I am a single parent for children and am out of work, and I'm a community worker here in Delft. I also belong to the women's circle here in Delft; we have several women's circles' here in Delft and we meet at 11h00 on Friday mornings in the Delft Library, then all the ladies come together there who belong in the various circles in Delft. We exchange ideas and talk about community problems and we try to solve these problems at these meetings. **F:** Fantastic, thank you. When we refer to you, you may sit down. **P:** I'm Vanessa Gous, I have 4 children and 2 grandchildren. **P:** I'm Shariefa Carolus, 8 children and I'm a housewife. **P:** I'm Lily Steyn, have 2 children and a housewife. **F:** thank you, if you do not want to tell us your age, you can tell us your age group. Lily, how old are you? P: I'm 30. **P:** I'm Alysia Bouwers, 30 years old and working at the bookshop, 1 child and single parent. **P:**I'm ?, 20 years old, 1 daughter. **P:** I'm Natasha Wright, 36 years old, have 1 son and I'm busy at school. **P:** I'm Lettie Petersen, I also currently single and have 3 children, 3 grandchildren and am 49. **P:** Hi, I'm 38, 3 children and a housewife. P: I'm Megan Davids, currently at school and I'm 15. **F:** Ok, so for our purposes, we are only going to look at people above 18, but you're welcome to sit and listen. It's interesting that in the country today, we have high take up of mobile phones in usage in the youth category, so we need to look at the over 18's, because that's when you are an adult. The youth below 18 makes up a big proportion of the mobile phone users in South Africa. Right, we were just introducing ourselves and explained what the research is about. A participant enters the room. **F:** Could you just briefly introduce yourself and tell us a bit about yourself? **P:** My name is Valerie, I have 3 children and a grandchild whom I love very much and I'm 49. **F:** I was just explaining that I am going to try to conduct in fluid English, but please feel free to respond in Afrikaans, if that what you prefer. I understand perfectly well. Please stop me if you don't understand and

hopefully Geraldine will help us. I was explaining that the work that we doing here, is further research on a national project, measuring people's access and ownership and the way telephones are being; fixed telephones, mobile phones and there's a whole other project around broadcast and radio and computers and the Telkom. We basically want to see how the spread of peoples' access to those technologies is. We are trying to understand what affects people's ability to access telephones. We got a whole lot of qualitative questions, a whole lot of numbers that you answered now, we know now who have telephones and we are trying to establish in these focus groups is why certain things are the way they are.

F:So we'll be asking certain questions about whether you have one, are you users, why you don't. We will only be focusing mobile phones. I will initially ask you the questions generally about your access, but the questions I will be asking will focus mainly on mobile phones. We will start and later take a break if people feel the need to, but it would be useful to get us going. So when I ask you as I go around the room; just tell me so that I can get a sense of what your access is at home, whether you have a fixed telephone in your house, Telkom phone, whether you have a mobile phone in your home, and whether you have any Telkom access at home.

F: So do you want to tell us do you have a Telkom phone in your house, a fixed line? **P:** There is line in my home but it's unconnected for 2 years. I do have mobile phone. **F:** How long do you have your mobile phone? **P:** Maybe 2 years, my daughter bought it for me. **F:** Does your daughter live with you? **P:** Yes, she does. **F:** So, your daughter bought you the phone; who pay for the account or is it pay as you go? **P:** I was actually on disability, but I'm not on disability now. I char for people to keep myself out of debt. I live from your hand to my mouth, if I work for you and you pay me and I use the money. I will buy R5 airtime and everything I pay for myself in my house. **F:** So you pay for your phone, the usage. Your daughter bought the phone but

she doesn't pay for you to use it. **P:** Sometimes my other children give me money and I take some for airtime or when I do community work, people know you and when you get some money I take some of that.

F: Do you think telephones are expensive? How do you manage with so little to pay for a mobile phone? **P:** I think it is very expensive, calls are more than R2. I can buy R10 airtime, I hardly speak to you and your airtime is gone. **F:** Thank you, for that. **P:** I have a Cell C phone. F: Is it a pre-paid or a contract? Pre-paid. Are you a housewife? **P:** Yes. F: How do you pay for that, out of your budget? My husband died 17 years ago, he used to work for Anglo-America and I got some money out, so I use that for my budget**. F:** And you, do you have a mobile phone? Ok, no telephone lines, no mobile phone, nothing? Do you use a pay phone? **P:** No. **F:** So, if someone wants to speak to you, they come and see you? **P:** I would borrow a phone or sometimes I would use a pay phone.

F: Did you say you were a housewife and you would pay for your pre-paid phone from your household budget? And would find that over the years you are spending a little bit more from that budget for the phone usage? **P:** Yes. **F:** So you're spending more from the household budget for the usage. **P:** Yes, to phone is expensive. **F:** What do you have at home? **P:** Pre-paid mobile phone. **F:** Do you pay for that yourself? **P:** I do. **F:** Do you have Telkom? **P:** No. **F:** Do you use pay phones when your airtime runs out? Or do always have enough? **P:** Yes. **P:** My mother has a pre-paid Telkom phone and I casual and I have a mobile phone. **F:** So sometimes before the end of the month do you run out of airtime? **P:** I don't even worry about that because my boyfriend pays for my airtime. **F:** So your boyfriend pay's for your airtime and it does not come off your budget. **F:** and what kind of phone do you own? **P:** Telkom pre-paid and mobile phone, but I only buy airtime when I've got money. **F:** do you live at home with your parents and use the Telkom phone? When do you use the family phone? **P:** I usually only buy airtime when I have

money and I also use the “please call me” when I give my family a call and they will call me. **F**: so you see that that would also be one of our questions because more of our users use that function. **P:** I don’t have a mobile phone at all, my children have 2, but I have a pre-paid line. **F:** and your pre-paid line, you still pay for the maintenance, what R60? P: Yes. **F:** Do you know roughly what you spend over and above; how much is your bill each month? **P:** about R70; which is not much for the calls. F: You use it very little and pay a lot for the rental. **P:** I have a land line and a mobile phone and my husband has got one too. My husband is working, so I can afford to have both. It’s a deal that Telkom has, that if you pay R120 for a whole year, just to keep the line open, that is now for the year and every month you can just buy about R30 airtime. That’s a good deal, it’s not so expensive but they say it going to increase soon. You must take up the whole deal, because when you go there they ask you whether it for a year or 2, etc. It works out cheaper.

F: Ok, we will have to start again here, I already explain what our aim is here; to look into understanding how people use pre-paid telephone, broadcasting, Telkom, etc. For this study group/ focus group, we’re only looking at mobile phones. So this study is part of a bigger research study, where we would be using number at a national level, but now we are trying to find out a bit more about the different aspect from this research. We are just interested in your view of mobile phones. Everybody has already finished here, so we won’t go around the table again, but if you could just say what your name is, give us a rough idea about your age and what you do. **P:** I’m Tersia Gallant, I’m single and I’m a volunteer worker. I work with the community and with an organization called Tourist Mutual Fund. I work with children. Over the years I help to provide clothes and food. Every Wednesday we have a soup kitchen running and we distribute food and clothes and everything that we have on hand. I work with our children and help them to deal with drug abuse and I help the parents because the parents suffer when their children use drugs. It’s a very sad thing. I support parents because I have experience in that, as I

lost my own child through drug abuse. **F:** Now tell us, do you have a fixed line at home? **P:** no, not at the moment. We have a big problem in our area, with the children's drug abuse. They steal everything to get money to buy drugs. The whole area lines and poles has been cut off and stolen. **F:** Have you had a Telkom line before? **P:** Yes, I had one. **F:** And do you have a mobile phone now? **P:** No. **F:** So at the moment you use a pay phone? **P:** no.

F: So basically to operate by word of mouth, that's very interesting because we need to make the comparison between the people who have mobile phones and the people who don't; at least the reasons why they don't. Ok, let's just move on now.

I'd like to ask you a little more on what you use your mobile phones for some of you who have it and some questions on what you do about it, for those who don't. Sorry we didn't get back to you. Could you just tell us what you have at home? Do you have a Telkom line? **P**: No. **F:** Mobile phone? **P:** No. **F:** Let's just ask again and if you wouldn't mind listening to the answers, and also just listen to the one person talking. This room is not good for recording. The recorder is very sensitive and it picks up everybody's voices; so if we can just try and get one person talking but if you want to say something then indicate to do so and we can let you voice your opinion.

F: Ok, you had a Telkom line and you say it was cut off; now the phone is with your daughter. You only use it a little bit each month. What is the main purpose of your communication? if I say to you what are you making from a mobile phone call? **P:**I use it for the community work that I do; like gangsterism. Because I am a community worker, if somebody needs to speak to me or needs my assistance, I give them my number, if I haven't got money, they can call me; and also to call emergency numbers, as I work with the police. So, if I have money I will buy airtime or else they would give me money for airtime.

F: So, for you it is very much a security issue. **P:** Yes, it is important for us to have mobile phones and to be able to call the police. We cannot call Delft police; we need to call police outside our area, as the police in the area are corrupt. **F:** So, this is really a security issue. When your daughter gave you the mobile phone, did she have security in mind? **P:** Yes, the first she bought me was stolen by a drug user, so she bought me a second one.

F: Ok, that's very interesting. Right, has anybody else think that the main purpose for their phone is for security, or contact emergency numbers or the police? P: Yes. **F:** You all feel that way even if you don't have one, you feel that the main reason would be for security. For those of you who have phones, do some people come to you and say that they have an emergency, and borrow them? **P:** Yes. **F:** could I just ask you individually a bit, let see if there is slightly a bit of different responses. Does anybody borrow your phone, Lizzie? **P:** No. **F:** and your phone, your family phone, do people come and use it if they don't have a phone at home? **P:** No. **F:** Ok, so nobody uses your phone. So, your phone is a fixed line phone. When people borrow your phone, do they pay you for it? They might pay your parents, but you are not sure; and you, do they pay you for it? **P:** No, they don't use my phone a lot, but their call come to my phone. **F:** Ok, so you receive their calls. **P:** the ambulance and the hospitals, their calls all come to us. Before when we never had phones here, if you haven't got a phone and you need to make a call, the people will charge you for it. You cannot call a mobile phone, only toll free numbers. Then F asked whether people charge you money. **P:** Yes, some people do. They charge you at least R5, so you might as well buy your own mobile phone/airtime**.** **F:** Okay, so you say some would and some wouldn't, depending on the number of the kind of service you are using, so if it's a toll free number, you would not be charged. P: if it's from your mobile phone for emergencies, you don't charge people.

F: Ok, now just clarify this for me, I really want you to speak individually, so when you say that; you have a mobile phone and you don't charge people? What are your experiences, if you have to use someone else's mobile phone would you have to pay? Roughly, there's a flat rate of R5, **P:** not from a mobile phone, I am talking about a flat rate. If you make call from their house, they will charge you; even if it is to the police station, they will charge you. They will charge between R5 and R7 that is why it is rather better to have your own phone. **F:** So, if you don't have enough airtime on your phone, they will find someone else. How many people, where you live, have mobile phones? Or how many people are you receiving calls on their behalf or do most of the people around you have mobile phones? **P:** it is mainly the youngsters that have mobile phones, some do their calls from other people. Some people prefer to call to the house phone rather than the mobile phone because it's cheaper. **F:** much cheaper. We should have remembered the name tags because I cannot remember your names. You don't have any phone at home and you don't have any phone at home, so tell me about your experiences, people have expressed a lot of anxiety around security and how do you cope with that; or do you not feel anxious? **P:** I feel anxious, but I mostly need it when travelling on the train. **F:** and you? **P:** I need a phone because I'm a community worker. I had 3 land lines before, but because some of the break-in's and very strange things that have happened to me, but I'm a very strong person and I think that sometimes you must go through it to make you stronger, so, I don't know about other people, but I'm not a very anxious lady. **F:** so, it's for security reasons but mainly for work, as you need to be contacted. **P:** Yes, I need to be contacted for my community work. For me its' very difficult to contact the people, so if you don't have a mobile phone, you must think of transport and other ways to get to them. **F:** You mention security is an issue here, but mainly your work has to do with security**.**

F: Is there anyone here that has a mobile phone primarily here for other purposes? **P:** yes for my son, his in London. **F:** does he call you? **P:** yes, he bought me the phone, and he calls me. **F:** and why, you don't have a Telkom line? **P:** yes I do. **F:** and he calls you, it's much cheaper to call on the Telkom line. Why does he call you on the mobile phone, is it because you would be moving around? **P**: it's cheaper**.** **F:** In many ways your cell is substituting your Telkom line. Does it make you think that you will actually get rid of your Telkom line? **P:** I would like to keep it for emergencies. **F:** and how much do you think you are spending on you Telkom line; over and above the rental? **P:** R100 pre-paid card; and other times small amounts. F: and your mobile? P: I would by airtime 3 times a month. **F:** so you spending roughly the same on your mobile phone airtime and is anybody else using your telephone? I mean, for that R100; is there lots of other people using this facility? **P:** Not lots. **F:** so, you think you pay more for your use on your mobile phone? **P:** Both.

F: If you can just think about, you said that you had got your phone to call police and for security. Let's speak to a few other people, what is your primary reason; it doesn't seem a problem if your boyfriend is paying for it, and so what do you think your primary use for it would be. **P:** I don't use it lots**.** **F:** so do people call you? **P:** Yes, with please call me and when I have to call doctors and so on. **F:** basically for essentials. What is your main purpose; you have a pre-paid, have you? **P:** basically when my baby is sick and when I have to call my grandma and other family members and when I return please call me's; it goes like that. I use about R10 – R20 airtime or sometimes only something cheaper like R5 airtime. **F:** and when your baby is sick? **P:** it is just a please call me. Just a please call me and then they respond. **F:** then you don't have to find somebody to make a call. **P:** they know when it's a please call me then it's a emergency. **F:** so your please call me would be then only to chat. **P:** my husband uses it for work purposes. **F:** so there's one phone in your family and you are using it. **P:** yes, if I have no airtime I would use the landline. I don't use the 2 at the same time, it's only

when I don't have airtime, I would use the landline. **F:** and you and your husband use the same phone; do you have children use it? **P:** yes, **F:** the mobile phone, they also being using it? **P:** but they don't actually use it, only when they download and stuff. **F:**is there anybody else, she's downloading jingle's and stuff. You say she's downloading, what is she downloading? **P:** songs and stuff. F: and they are downloading it to this phone that you are using? **P:** she only uses. Come to think of it, we actually have 2 mobile phones, that but my son uses it because his phone is not working and it a contract phone and he transferred it to that one. So she's using that one now. **F:** anybody else using mobile phones to down load stuff? **P:** but we are watching what she is downloading. **F:** it's also quiet expensive, it can add up. So a lot of you; some of you already mentioned that predominantly you are receiving calls or missed. Who is really making calls? If you need access to a phone you are going to borrow a phone. What is the main reason you don't have a phone? **P:** I would like to but it is too expensive. **F:** ok, a fixed phone or a mobile phone. **P:** yes**. F:** you mentioned downloading, the most you are using it is for voice calls. Is anyone sms-ing more than voice calls? **P:** yes, Mxit. **F:** there's the chat. **P:** I don't let my child Mxit**. F:** why don't you let her Mxit? **P:** they chat to the wrong people. They don't concentrate. **F:** is it mainly about time. **P:** yes. **F:** you mainly use it for voice calls, why is it don't you use it for sms? P: I don't see the reason why you must sms when you can just call the person and tell the person what you want. **F:** are you aware of the price difference? **P:** yes. **F:** yes you are. **P:** yes, but now you must remember if you have to speak to your grandpa or if your grandpa phones, it's a little different. He doesn't know how to read the messages, and with a please call me; it's just confusing to him. **F:** so the issue is not about the person making the call, but also the person receiving the call. **P:** yes, because he really has difficulty using the phone. He does not know how it works.

F: so many of you doing voice calls; many of you are not doing sms; which has got a cost saving factor and it is going to be interesting when you speak

to other users. In fact men say that they are actually sms-ing quiet a lot. **F:** what do you think, sms or what is your experience; your husband**, P:** boyfriend**. F:** does he seem to sms? **P:** Yes, F**:** your husband, does he sms a lot. **P:** no, he does not sms.

F: Ok, there's a lot more men in the country using their mobile phone for banking. Does anyone use their phone for banking? **F:** no, you wouldn't dream of accessing your banking account on the telephone? No, no you wouldn't. **P:** people can download your bank details. **F:** so you think it's a security risk? You don't think it's secure? **P:** no. **F:** so it's not actually that you don't but you won't because you don't think it's secure and unreliable. Now the bank have done quite a lot to ensue that it is safe, but you just be interested in that. **P:** the bank's say they do a lot of things that's safe, we bought this phone in the shop, on this phone they showed us everything we can do, but now you must know, we ourselves haven't got money in the bank. If you go to the bank, paper works need to be filled in, they charge us for that and by the time you want to withdrawal, the money is out of the bank. They tell me my card was never lost. They say my wages have been paid in but there's no money and they tell me I was the only one handling my card; it was only in your position. If I know how to do it, I would. I think people don't know how to use that facility.

F: it's an interesting thing, the banking thing cannot be more complicated than using the phone. It's the thing that's more complicated. Just tell me, you have a bank account? Who has a bank account? You have a bank account and you have one; how often do you go to the bank? Not an ATM, actually to the bank? **P:** once a week or so to Michell's Plein. **F:** and how long does it take to go there and cost wise? Do you drive yourself. P: R10. **F:** so once a week basically to a ATM, and not fancy transactions and you spending R10 over and above your ATM costs. Now if you did this on the telephone, you would probably pay R2 or so. The transaction is done instantly and you

would save all the time and money. So it's the same thing, despite the savings; the trust issues, that's different, some people say it's complicated. It can't be all that complicated, and you paying quite a lot of money getting there, and the facilities are not very good. It an interesting thing that a lot more men are using that and saving themselves a lot of time; also more men have banking accounts and stuff. Now from this national survey that we doing, we doing another survey indicates that more men are definitely doing more mobile baking than women. Women also have fewer accounts than men, so that explains; but it's also that men seem to be more comfortable with this and the advantages that come with this technology. So, nobody's using it for banking; is nobody using it for email and to access the Telkom.

P: I think it's very expensive**. P:** if we use email and other facilities from our mobile phones, we will use up all our airtime. **F:** yes it is, if you get a news clip, but even though it takes up your airtime, e.g. Mobile banking, it could save you a lot of money in transport and other things. So, it's interesting to think about; you might be spending airtime but you might be saving more on transport and time to get there.

F: I'd like to get back to your missed calls and please call me; because that's an interesting thing from our statistics to talk about; that men are using the phone's more for banking, emails, etc. and women using call me's and missed calls much more than men. Why do you think that's so? Who wants to start; why do you think? tell me about your own experience, you told me you use it for your and around your relationship that you calling; yours could be when your child is sick, but essentially around relationship. What is your assumption; are there people that you would or wouldn't send a please call me to. **P:** yes. **F:** who would you send a please call me to? **P:** family, basically. **F:** and they would understand you don't have money. Would you send a please call me or a missed call to you daughter and then she calls you? **P**: yes. **F:** you would do that, only when you don't have money. So will

you do that if you do have money? **P**: no**. F:** my daughter would do that even if she still has money. **P**: no. that would be cheap. **F:** so your children don't miss call you? **P:** no. **F:** is that because they don't have mobile phones? **P:** no. **F:** oh, they do have mobile phones. **P:** only in emergencies. **F:** so you might even receive please call me's or miss calls but you can't afford to call back. So, you basically giving your miss call to people you know that would call you back. **P:** just to may auntie and my grandpa. F: and they will be able to call back**. P:** anytime of the day. **F:** do they have contract or pre-paid phones? **P:** no. **F:** but they always able to call you back. When your children miss call you, do you phone them back from your pre-pay line? **P:** no. **F:** so you only call out.

F: Does anybody call you and expect you to call them back; like say quickly call me back? **P:** no. **P:** I do that with my mother. **F:** what does your mother do? Is she at home? **P:** she's at home. **F:** is she a pensioner? **P:** she's a pensioner. **F:** fixed line or contract. **P:** normal line. **F:** and she's quite happy for you to call her and she calls you back. **P:** she knows I don't have any airtime. **F:** would you then have a conversation, which is quite short? **P:** I would have a normal conversation with her and when the call continues for more than 5 minutes, she would say that I am chatting too much because I did not make the call. **F:** but she's happy for the contact.

P: my mother is a pensioner, so she pays a lesser rate for the calls. **F**: so you benefit from the subsidy they receiving. Does anybody need a break, because we would still be busy for another hour. We would be finishing up about the please call me and the expectations between various of you, we have a number of people who are not using phones at all, so while we are waiting for Daphne.

I would just like to introduce to you Fuzzi Hendricks, who just joined us. We were going to start much later, as you all know, so she will be recording this and transcribing it afterwards. I just want to ask you about your purposes of

your calls. Most of you were saying it is about security, it's about relationships; contacting parents etc. do any of you regularly use your phone of even recently to get information. Information about anything, e.g. municipality, about jobs, bus schedules? **P:** yes. **F:** you have. What recently did you use your phone for in that regard? **P:** I was phoning around for my husband who needed shoes; prices for shoes. **F:** and that's really for his business. **P:** yes. **F:** and personally, do you call for information. **P**: my daughter's phoning around for jobs, and job interviews. **F:** and how old is she? **P:** she's 23. **F:** and your personal line for phoning around or is it mainly for personal calls? **F:** and you for community work. **P:** yes, I use it for helping out. **F:** so for mainly community work but not personally. As I mentioned in the beginning that one of the big things about why we communicate in this form is because they provide equal opportunity to access to information to make their job easier and for social purposes and that kind of thing**.**

P: we are an organization of women here, and we want to know how do we gain access to become more profitable in the things they want to do. When you call someone they would hold on long at your expense. Another problem is that I use my number and I find another user with the same number as mine. **F:** is that your mobile phone number. **P:** yes. When you ask them where they stay, it could be in Port Elizabeth, or faraway places; they phone to your number and you not the person they want to speak to. **F:** is it a wrong number or does she want something from you? **P:** they have the right number, so that means they have the same number as you. Sometimes I buy me airtime and hardly use it and before you know, your airtime is gone. I then have to go back to the shop, and the owner would recognise me and provide me with a new voucher.

F: so the reason you say you do not use it for information is because you might be phoning for information and you might call someone else. This information would be for your community work, not really for personal use. **P**:

yes, to help other people. **F:** so you don't use your phone for yourself like that; like for a municipal inquiry. **P:** no. I use it for social services, because in our area here in Delft, men use and abuse their daughters, so I want to open a day and night centre. How do I go about changing my house to a day and night centre? I call social services and they put me on this one and that one and it's not worth it. **F:** so what would you do instead? **P:** I would rather meet with the people myself. **F:** that's quiet a big enquiry. **P:** yes, they will send me from one lady to another. **F**: it is too expensive to use for that kind of enquiry**. P:** yes, because you never go to the right person.

F: just to speak now about your expenditure; how much do you spend on your mobile phone. We spoke about it already and the amount that you are using, and the way you are juggling it with the fix line and pre-paid. Nobody in the room thinks that the price of mobile phones are good; from what you say, everybody thinks its expensive. **F:** with your 2 phones and the access you have, before your son gave you the phone; if your husband took the phone for his business, would you be without a phone or would your fix line then be working? **P**: sometimes I have a phone and sometimes without a phone**.**

F: with the issue of security, would it not be a worry if your fixed line is not working or would it not be during the day that he would be working? **F:**do anybody else only have access to a phone through their father or husband? Your account is being paid by your boyfriend, he gives you airtime. Does he not say that this the only amount airtime that you can use? **P:** no. **F:** basically when it's up, you tell him and he buys you more. There's no restriction on that. **P:** no. **F:** from what you said, in terms of how you pay those accounts, so what you spend on your mobile phone is self imposed by your budget. Nobody says you can only spend R5. I spoke to you earlier but did not get a sense of how much of you budget you using on your phone. Is a only a really small piece; I want you to really think about this before you answer, because

when you buying pre-paid, it's R5, R10, R20, R30 and you think it is small but by the end of the month it could be quiet a lot. So before you answer that, think about how much it is about. Think in the last month how much it is, then tell me if it is more than your budget than what you would like it to. Lizzie what do you think? Do you think it is 10% or more**?** **P:** less**.** **F:** so it's actually quiet a small bit. **P:** I have a home phone. And use a little, about R20. **F:** Rental. Is it pre-paid? **P:** without the rental. **F:** you and the number of people seem to be using your phone quiet actively. Do you think you are using more and more or is it limited to a certain amount? P: I would buy airtime once or twice a month. **F:** but for your own usage, do you find that you using your phone much more than a year or two ago? P: I have a month contract of R300 and another mobile phone of R70, and about R30 airtime extra per month. If I don't have airtime on my landline, I use the mobile phone.

F: I know, there's been a lot written about how mobile phone have taken up more and more of peoples household budgets, and lots of money is spent on it. Money that otherwise would be spent on food and other household stuff. Do you think that's the case or are you quite contained or are you using more and more. **P:** using more and more. **F:** and are you aware of that. **P:** yes. **F:** You try and say I bought 3 times this month and now and trying to save? **P:** yes. Like for our work, we need to phone around to get information to know what is going on in our area. They give us R300 a month to phone around twice a day to know what is happening in our area. **F:** who gave you the money? **P:** the court. They buy the airtime; they give it to me, the court. **F:** right. **P:** the R300 does not really last for the entire month, just for phoning twice a day, we need that information, then I have to use my mobile phone. **F:** so that does not impact on something else. **P:** yes, by that you can gauge to how much to spend from your budget. We can't do without a phone, if you see someone on the street in need of help, we need to report and assist; so for that we need to be in contact.

F: ok, I just need to rap up, and make sure that the people who don't have phones, why they don't have phones. You've explained that you would like to have a mobile and would like to have one, but can't afford to have one, and it's mainly to do with your work that you would need it for. You've always had a fixed line and never really felt the need for a mobile phone; not deprived by not having a mobile phone, and you just speak to people when you need to and when you need to get certain information, you use your land line and you don't have to drive there, so there's no real desire to have one. You also seem quite content not having any phone. **P:** maybe someone can donate one. **F:** so basically, when someone needs you, they will call your neighbour and she will call you and you would not have much need to call out; and you're a pensioner, right. **P**: right**.**

F: and you? You didn't seem so content not having any phone. You never had any fixed phone? **P:** I did have. **F**: and then it was cut off. **P:** yes. **F:** so, who closest to you have a mobile phone? **P:** Neighbour. **F:** fixed line. **P:** yes. **F:** and you. **P:** I use my neighbours'' phone as well. **F:** and it's quite close to you and you don't feel anxious about the safety aspect. Very quickly, in terms of the mothers here, how many of your children have mobile phones? **F:** ok, so how many of the children receive the mobile phones from you? You bought it for them, otherwise they manage to get it themselves, or they work. **P:** some of our children are naughty too, they steal the phones, and that is why they now own mobile phones. We need to take out our SIM cards.

F: Thanks for sharing with us your experiences and ideas. It was very insightful. Is there anything you would want to mention about the subjects we spoken about, or you feel you covered everything? **P:** Like with the mobile phones… we've got a lot of people here in Delft who are unemployed, if they have mobile phones they would be able to employ themselves. So if they just know how to get access. **F:** that's an interesting observation you make, in this room we have a number of women with mobile phones and only one of

the phones is being used for business purposes, yours is also work, but unpaid work, you talking about paid work of entrepreneurial work, although it's your husbands work but clearly it seem that you are involved in it, assisting in it. A large number of women here are single-headed households, but the phone is has not allowed you to generate income or money. **P:** no.

F: By using it on time or by finding jobs. So just to be clear on earlier discussions, some of you are pensioners, some of you are getting support from your boyfriends and other support. Your husband is not at home; you're a single parent? **P:** no, I have a husband. **F:** so do get a remittance from him. **P:** yes. **F:** so that allows for you to manage, so there's nothing that drives you use the phone to make some business. And you, you have no other income? **P:** no. **F:** you haven't really thought of how you could make an income with your phone? **P:** no. **F:** so it's basically for communication and things; an important thing about that is that the phone cannot do anything but is the person that use the phone that can make the difference; especially if you have certain skills to use it for. Likewise with the Telkom banking, the phone can only be as complicated as you perceive it to be. Likewise, if you the phone business, you would a business to use the phone for. The phone does not lend business on its own. Thank you very, very much indeed.

End of Women's Session.

FOCUS GROUP TRANSCRIPTS: URBAN USERS
VENUE: DELFT, CAPE TOWN

DATE: APRIL 2008:

TARGET POPULATION: MALES
Key:

F: Facilitator

P: Participant

Target Population

The focus group discussion was held in an area classified historically as a 'Coloured' township on the Cape Flats 50km outside of Cape Town. Consistent with the Apartheid trends, this township is one of the many that appeared as a result of forced removals by the Regime of non-Whites from the Cities. It is also a drug-infested area where use of "TIK" rife. Tik is a widely locally used drug.

Two of the participants of this FGD had prepaid TELKOM/fixed lines, which they claimed as 'theirs' alone. The wife of one of the participants with a fixed line is disabled and is not able to use any kind of phone according to the husband. There was prevalence among the male participants to give away their cellphones to their children, girlfriends and other family members.

Most of the participants seemed to have knowledge of computers and or owned them in their households. The age range of participants was between 16 and 60 years. And most of the older participants were married.

START:

P: We received a couple of computers from SAPSA, now we are busy in that line of work. Now we need to install email and Telkom, so that it would enable us to do that. **F:** and do you know of anyone that has a computer at home**. P:** yes. My neighbour and my son in law, they own computers, Mr. van

Der Berg has one**. F:** yes, thanks, we are going to ask around, but first to get everyone's names for Geraldine to note for us and then we will come back to it. Could you tell me what your name is please? **P:** I am Fanie, I am a security guard here at the school and also involved in community work. I also own a mobile phone and it is in working order as it is important to be able to have access to a phone in any emergency**. F:** you have a telephone at home? **P:** no. only the mobile phone. **P:** my name is Theo and I am currently unemployed. I do not own a mobile phone or have a landline but I do have access to my cousin's phone. **F:** thanks; we also need the opinions of people who do not own mobile phones. **P:** my name is Alexander Petersen and I am a pastor of evangelist. I had a mobile phone but had given it to my son before he left for Johannesburg. The other mobile phone I gave to my daughter who is at Parow High School; there are actually 3 mobile phones at home, so my wife uses the other one. I have 2 computers at home and am busy mostly on the computer after I come home from work at 16h30 until 22h00 or 23h00. When I incur problems with the computer, I would call my son in Johannesburg and he would be able to help me solve the problem; but mostly I am familiar with computers. I don't use a mobile phone for making calls but rather the Telkom line at home. It is very important for people to have access to a mobile phone because anything can happen, e.g. Flat tyre, and you need assistance, or run out of petrol. People today, are scared to assist someone at the roadside because crime is so high. So if you have a mobile phone you could call for police assistance or an ambulance to be set out. There times when I did not take my mobile phone to work and my wife call to my work number with something important and I my foreman would not give the message until the end of the day. When I have the mobile phone with me, I am able to receive important messages immediately. Having a mobile phone on with you, could sometimes be seen as a disturbance, e.g. In church or when people hang their mobile phone on their chest they could get robbed. The youngsters display their phones on their chests to boast who

has the better phone. Also, mobile phones allow for children to have access to pornography. Many people don't know how to use a mobile phone; it is there for using when necessary only.

F: you've pointed out a lot of negative things about it. **P**: Stanley Van Der Berg, I've been involved in Delft since 1971, I've worked in this community to date, married 5 children, I have Telkom container and own a mobile phone. I have a computer. **F**: is it connected to the Telkom? **P:** yes, I need to keep it connected. My last job was a contract with the Correctional Services, doing Human Rights monitoring in prison. Hopefully I will be starting another contract with them in January. I am also involved with skills development, we run soup kitchens and collecting of clothing and the distribution to poor people. We teach people how to create gardens and plant food and things like that, we do skills development because this area is full of poverty. There is an increase in crime, especially mobile phone crime, children are robbed of mobile phones and it is sold to buy drugs. There is an increase in that sort of crime.

F: you mention having Telkom. What do you use it for? **P:** searching for information. I like collecting things and keeping old things, like the books of the old Stan Lee library in England, these old books were used in the war, I have quite a lot of these books and so I search to see where these books are. I also use the Telkom to assist the children with school projects**. F:** do you use it for business? **P:** no, not yet; I'm not so good at it yet**.**

F: maybe I would rephrase: do you see the Telkom assisting you in building your business in the future? **P:** yes certainly, let me just back track, in prison, one of the job functions was to submit monthly reports to the judges, with what is happening in prison, so you go in with your code and do the reporting**. P:** yes, definitely; say for instance, you are looking for olives, you search and find somebody in Italy who grows olives, then you can do bartering back and forth.

P: I'm Joseph Adams, also staying in Delft for 17 years, married with 3 children and unemployed. I will be starting a business soon; I just need to get my papers in order. I have a computer, my daughter has a mobile phone, my son has a mobile phone and I own one as well**. P:** Wendell Uys, I'm 23 years old, have a daughter of 2 years and do not possess a computer or mobile phone, but I wouldn't mind to have that technology. **P:** Hi, I'm Imeraan Charles; I live across the road with my mother and sisters. We have a Telkom line at home. I think it is quite convenient to have a phone at home because you are able to call your mother and tell her where you are. **P:** Hi I'm Gershwin Daniels; I had a mobile phone but gave it to my girl friend. Like the previous speakers explained, there are lots of robberies in Delft and my girl friend is usually just at home, she would be able to call if she is in danger. I have decided to build myself a computer and it has been keeping me very busy at home. I enjoy watching movies, and listening to music and the computer could keep you really busy. **P:** Samuels, also stay in Delft and married. I am also into computers, especially building up of computers, I have mobile phones and I love this new technology. **F:** do you have a fixed line at home? **P:** no only a mobile phone. **F:** you don't need one **P:** no, I don't. **F:** your mobile phone substitutes. Are you connected to the Telkom? **P:** yes, but sometimes circumstances do not allow for it. **F:** dial up. **P:** yes**.**

F: is there a public Telkom point in Delft? P: yes, at the library is computers and Telkom access for the general public to us. **F:** is it well used? **P:** yes, mainly scholars. **P:** we've also started a computer lab; for underprivileged children; children who cannot afford it. It has become too expensive and now this organization acts as a business. So, the library is the best option to go to.

F: well thanks for that, there's a lot of interesting things to come back to. Let me just briefly tell you why we going to focus in this way. We mainly going to focus on mobile phones, but we are also interested in why people are using

them and how people are using them, so even if you do not have a mobile phone, you need to participate and tell us as a non-mobile phone owner, aspirant phone user or a previous phone user, what your views might be on a number of things. We've got a lot of the broad information that we need but we still need to drill down certain bits of information. **P:** it seems to me that the access to mobile phones have become easier, because people are now able purchase phones on their clothing accounts. Places like Jet, you can actually buy your phone for R300 or R400 on your account and buy the airtime as well. You can do all this is you are employed and have theses accounts, then there are those who cannot afford to buy phones; like people who are on disability grants. If phones are made available to them at a discounted rate it with help them to also have access to some form of security. If you don't have a mobile phone and you don't have a landline, there is no way of calling the police. It would be good especially for these people, it would be good if government could assist in sponsoring the phones to these people; a better price deal.

F: exactly. Can I just ask those of you who don't have phones; you have chosen not to have a phone. **P:** it was necessary to give my phone to my daughter; I chose not to have the phone. **F:** you also mentioned that you do not like the disturbance**. P:** I will eventually buy myself one again. I feel that I need to have a phone with me for urgent messages.

F: so just circumstantially. So, for some of the people you don't have phones, is it just an affordability issue, you would like to have a phone or you would like to have a phone or would you like to have a phone. You've got a Telkom fixed line. **P:** yes. **F:** But you don't have your own phone, but there are other mobile phones in the house. **F:** you don't have a mobile phone or you can't afford to buy it. **P:** No. I cannot afford to buy one but I had a phone before; I had 2. **F:** but there are other mobile phones in the house. **P**: yes**. F:** but you would like to have one. P: yes. **F:** how did you get those 2? **P:** my mom

bought it as a birthday gift. **F:** and what happen to them**. P:** I gave one to my sister and the other I took to the repair shop and it broke again and I couldn't afford to pay for the repairs. **F:** and you. You don't have a phone? **P:** I had one and became bored with it and sold it because I don't wish to have one. **F:** tell us a bit more? **P:** I'm not interested in a mobile phone. **P:** can I just say something. We as grown ups, we find it hard to master these mobile phones, but the youth tend to master it much quicker than us. Mobile phones today are not that expensive. Sometimes you can buy it for R50 or sometimes R100, so it's really inexpensive today as a couple of years back when it cost around R2000. **F:** but the usage is expensive. **P:** no, it's not so expensive, I think, Cell C allows for airtime of R5 and you could make at least 2 calls with that and weekends it is free. **F:** but all these R5's adds up, and at the end of the month it could a substantial amount. **P:** he says it is not so expensive, but we are talking about per unit and that's expensive; because if I spend 10-20 minutes on that call for the R12 that I had bought it wouldn't even be enough; so per unit it is expensive.

F: that's an interesting distinction. It is expensive for what it is, per unit. How much do you think it is impacting on your budget? Do you think you are spending more on communications on mobile phones as in the past? Is it growing, is it increasing part of your budget? **P:** yes. I will not have spent so much on mobile phone if you land line is cheaper. It's mobile, so for the convenience I can phone home and people can call me and it becomes expensive for the kind of work that you do, there's a lot of communication. You got to make sponsors, and the sponsor on the other hand would talk on and on and it is expensive per unit. If your unit is about 38 cents, you are probably spending about R8 but for the price per unit now, there is no way you can expect to speak long for R5.

F: what do you think you are not spending money on now, in order to pay for mobiles? What do you think has given, in terms of your budget, if you are

spending on your mobile? **P**: if you are earning money, then that's not a problem, but it can have an impact on your budget in terms of feeding your family because you need to buy a loaf of bread, then you still need to buy R12 Vodacom. So, a loaf of bread is R6 but then again, you need to stay in touch. So you cut back on other thing, yes definitely.

F: just to follow that up: you said you are unemployed, but you have loads of mobile phones, what 3 in your house; 3 people have in your house. **P:** yes, last year I was retrenched, and we purchased it a long time ago. **F:** are you paying for them? **P:** yes. **F:** does anyone else have a phone that some else is paying for? **P:** my son has one that I pay for. **F**: but nobody else, that is the primary breadwinner pay for some else's phone? **P:** I'm paying for his phone. **P:** and you gave it to your girl friend, now I'm building up a computer. **P:** that is why I'm saying I am paying for his mobile phone. We have a security company, we have 2 schools in the area we look after, so Thursday I gave my mobile phone to my son. I told him that if anything happened that he should phone the cops. So when he arrived home on Friday, all the airtime was used on the phone and I don't know whom he called. My daughter went in on the phone to check for me and discovered that he had made some calls. My son says that the phone was in his pocket and on speed dial and it just used up the airtime. So I don't know, I am just busy learning.

F: do any of you know what the price rates are, per minute, for calls and if you actually impacts on how you communicate with family members and businesses. **P:** I once made a call to my son in Johannesburg from my landline to his mobile phone, which cost R75. So, you should rather cal from a mobile phone to a mobile phone. **F:** think in terms of the 3 mobile operators; who do you think is cheaper? **P:** My daughter sometimes sends airtime to my mobile phone**. P:** it could be about R2 per unit at the moment, depending on which service provider you use; if you have money you do not

care about the call per minute; even if use load R12 airtime, you don't care, you just make the call.

F: you said earlier that you were using off peak and that sort of thing, **F:** basically if you have money, you just use the phone. **F:** I just want to turn to the earlier point; how do you get thing, how do you get your phone. Mostly you said you acquired it yourself; you said you got it from your mom; you got the phone from your girl friends dad. Now, the rest of you, how many of your wives have phones; nobody? **P:** my wife has one. **F:** does it have anything to do with you? Did she acquire it independently? **P:** she uses both the house phone and the mobile phone but I will give her permission to use the house phone. **F:** so the house you see as your phone because you pay the bill; usually she needs to ask you to use it**.** **P:** sometimes my daughter uses it too, if she wants to save her airtime. **F:** But you gave your mobile phone to your daughter but you don't pay the bill? P: yes, I pay the bill. F: how old is your daughter? **P:** one is 19 and the other is 16. **F:** which daughter did you give the mobile phone to. **P:** the one of 16 years. **F:** you gave it to her mainly for security? **P:** sometimes she wears it to school, she phones if she wants me up to pick her up when she is finished with school. **F:** so she has a phone. Does she get pocket money, airtime to use the phone? **P:** sometimes, I buy R25 airtime. **F:** and is that the main way to pay for the phone; she doesn't really have any other way to pay for the phone. **P:** yes, I buy her airtime and also for my daughter is Johannesburg, I would sometimes buy R50 airtime. **F:** I'd like to hear your opinion**.** **P:** I am just listening to everybody talking; I am a mobile phone user, it is for convenience, it can be for any use. **F:** but do you think that the pricing of the cell is expensive? **P:** if you work, you can afford it and if you don't you obvious can't**.** **F:** so you do work. **P:** yes, I do. **F:** how much airtime do you use? **P:** well, it depends, sometimes I can buy R90, which last a month and there are times that the same amount would only last a week. **F:** whom would you call? P: friends, family. **F:** does you wife have a mobile phone? **P:** yes. **F:** does she have a

mobile phone? **P:** yes. **F:** so your phone is your phone and hers is hers? **P:** yes. **F:** do your children have mobile phones? **P:** yes, but where that is concern; they have chores, so they get pocket money; they work for it.

F: and you have 2 sons **P:** a daughter and a son. **F:** and the children both have phones but your wife does not have a phone. Does she use your phone? **P:** she mainly uses the Telkom line. **F:** so you say you have a wife and 2 children at home? **P:** yes, both the children do pinch your phone to make calls. My wife is disabled, so she doesn't use a phone. **F:** and you gave your phone to your girl friend. **P:** yes, a phone is too expensive. The phone I gave to my girl friend, I maintain. **F:** you pay for her calls**. P:** she comes to me and says that she wants to make a call and I will buy her airtime**. F:** and how do you get access to a phone? **P:** a public phone. **P**: with Cell C, you can just start communicating and the line would be disconnected. It is so expensive but the advantages are that you get 7 sms's free and 7 please call me's. The sms's are once a month but the please call me's are daily. So I think that you spend more money on your phone if you want to talk longer. **F**: you talk about sms's. Let's look at the different way's people use sms's. Tell me, those of you who have mobile phones; do you use sms's? A lot; as voice, more than voice? **P:** the same as voice. My sisters have money, and they can afford the airtime. So I would send them a please call me and wait for them to call me back. I would then speak on their airtime. **F:** who else is sending please call me's? Who would you send those to? **P**: family and friends and colleagues at work that I know would phone me back. As I said, if you phone someone, they think you have a lot of money, and then they want to talk at your expense.

F: Who does not send please call me's? **P:** I send my son in Johannesburg please call me's. Sometimes he calls back, sometimes he does not. **F:** why is that? **P:** he does not want to waste his airtime.

F: do any of you actually personalize your please call me's as a way to communicate? Like to your family to say I'm at home? **P:** I would rather send a miss call instead of a sms. **P:** I think it is mostly the youngsters who use that kind of facility. Now you look at us, we don't even know 10% of what is going on that phone. Maybe these mobile phone companies should find an easier way to educate us on the usage of the functions of the mobile phones. **F:** do you think that if it were written in Afrikaans that you would better intake of the functions? **P:** no, it depends on the different range of the phones. There is a vast difference between the models and ranges of mobile phones**. P:** the language is not the issue. It is the type of phone with the different features. **P:** I can go into the computer and not know what to do and the computer will tell me step by step what to do, maybe we must have something similar with the mobile phone and I will be able to switch the magic on.

F: I just want to return to the please call me's and who does that. Most of you say that you use that facility. Who would you would please call you? **P:** mostly the family. **F:** you said that you mostly please call me or sms your sister, if you say family, who, would you expect to do that to you and expect you to respond? **P:** What they normally do, and I see the councillor of us also does this, when you send a please call me, the receiver send you a please me back. So if he does not call back, he knows that I would take a walk to his office. **F:** is anybody miss calling you or sms-ing you? **P:** yes, could be friends, family. **F:** and would you respond**. P:** yes, I have to. **F:** Would you… for instance my daughter would never call me but send me a please call me and expect me to call her back. It's her expectation that I would call back. Do anyone have that, your wife, daughter or anybody? **P:** my son does it a lot. He is at the Technikon, so that I know when I must pick him up if he does not use his car.

F: so your children would be one category that would miss call you. **P:** my daughter would, she would call me for airtime; she would not use her airtime to call me. F: so your daughter is asking you to download airtime from you. **P:** she would only call in an emergency, but she mainly uses it to talk to her friends, she is always talking on her phone. **P:** it's the new thing Mxit. **F:** are any of you using it. **P:** no, but my daughter. It is a much cheaper way to communicate.

F: there has been a real concern about Mxit; how do you feel about it for your daughter? **P:** I am concern, she looses out on sleep; it's just like the mobile phones, it turned the world upside down. **P**: there is also a broader concern especially with pornography and the issues that were raised at government level. **F:** obviously the pornography is one issue, but with the Mxit the concern has been whom children are speaking to. **P:** with my daughter, it is mainly to keep in contact with her cousins. When she is on line and speaking to her cousin, I can have her rely a message to my brother through them. **F:** do you monitor who she speaks to? **P:** not always, most of the times it is friends that we know and family members. **F:** are you confident in saying that. **P:** no, I can't always be sure whom she speaks to, obviously, it is bound to happen. That is why they are constantly looking for contacts. My concern is mostly about time. Sometimes I awake a 2 or 3 in the morning and she is still on Mxit. **F:** can I just bring you into the discussion: you mention you don't have a mobile phone but do you ever have a need to family members or friends and how do you access a phone for that purpose? **P:** I use my friends. **F:** do people call you on his phone as well? P: No. **F:** so that is how you keep in contact with them, but you don't have your own?

F: Ok, could we just move to another area: if you could just think back about your last calls because it is difficult to generalize, what are you mostly using your phone for, who are you mostly calling from your phone? **P:** I don't always have money for airtime, so I mainly use sms's and please call me's. **F:** is it

family? **P:** family and work purposes. I would sometimes give the principle a please call he and me would call me back. **F:** so it would be for family and work relations; so friends as well. What would you use it for primarily? **P:** I would use it for church business, or the computer company for quotes. **F:** so you are using it for community services and you using it for the services. **P:** yes. If people ask me to use my phone, I would let them. **F**: so other people use your phone? **P:** yes, but when people started miss-using my phone, I asked Telkom to change the number; now I have an unlisted number.

F: those who use your phone were they family members? **P:** it was one of our church members. **F:** what about anyone else in terms of the main usage of your phone? **P:** work relations, friends and family. **F:** so it's a spread of stuff. Is nobody particularly for work; or particularly for family; nobody using it particularly for sports results, news, etc. **P:** my daughter for Telkom; not always, only sometimes. **P:** like I said before, we as the older folk, over 40's, only use is for calls and nothing else. We are not so well educated; I can give a kid my phone and he would be able to decipher is. **F:** so it's not just a matter of cost, it's that you unfamiliar with downloading new stuff. Are you aware that the phone is for Telkom as well? **P:** yes, but I never really owned a phone with those compatible facilities. **F:** oh, so your phone couldn't do that. Are you aware of the cost of that; being on the Telkom? No, it wasn't really the cost of it, it was just that you phone could not do that.

F: is anyone else using the phone for Telkom, other than your daughter; no, ok. What about mobile banking. Anybody accessing the banking account via his or her phone through the Telkom?**P:** first of all, there's no money in the bank. If you use Telkom banking, does it use of your airtime? Is it true? **F:** Let me just go back here: were do you do your banking; where do you get your money? **P:** Standard Bank. **F.** Here in Delft? **P:** no, Bellville or Michell's Plein. This place is too dangerous. I would get into my car, and go to Michell's Plein and walk straight into the bank and withdraw money. **F:** what

does it cost to drive to there. P: about R10. **F:** and withdrawal charges are about R2.50, so… **P:** no, but after the banking I would go and do the shopping there. So, I need to be there anyway. **F**: you don't see the convenience of necessity of paying your Telkom account on with your mobile banking? **P:** when my salary is paid in, I do my banking and shopping once a month. **F:** so you do it once a month. **P:** I think it is about the usage. Many do not know how to use it, and this besides not having money in the bank. If you can, for instance, use the phone, you will use it, because it will save you money. With Standard Bank, each time when activity has taken place on my banking account, they will send me a SMS. So, I agree that if I know how to do it, it would save a lot of time and money. **F:** don't you think it is interesting: by doing your banking can only be as complicated as using your phone. You perceive it as a complicated thing; you say only the youth can do it. So, in fact it's not so complicated, it is using the phone.

F: I think with the mobile banking, it is just you that do not understand the facility. If you were taught, would you feel comfortable doing your banking? **P:** yes I would. **P2:** yes you would be able to do it at home, whilst you are busy with something else, and you do not have to go to Parow, Bellville or Mitchell's Plein to do banking. You can still go to these places for shopping but the banking you could do beforehand. **P3:** with the advancement of new technology one is able to do all sort of things like paying with your debit card at supermarkets, Telkom banking etc. This technology enables to simplify life for us. When my daughter does money transfers to my account inside the bank, I am able to withdraw within 2 hours from deposit. With Telkom banking I will have to wait at least 2 days for the money. **F:** yes, but deposit inside the bank have higher transaction costs. **P:** no, I don't agree, if I do transfers inside the bank, it does not cost me. **F:** are you sure? **P:** yes, I pay my daughters college fees and I am not charge any cost.

F: so your perception is that you would get the money that fast, and it is not cost saving. **P:** it is the timing and the accessibility of the money. **F:** so you are also saying that it is not just about doing the banking, but about shopping and about visiting people.

F: lets just go back a bit: in terms of what your main purpose of your phones are for, and it's really about who you call and things, in terms the main purpose or the purpose of your phone is for, do you use it to get information, maybe calling the municipality, or other people rather; do you ever use it for that purpose? **P:** information is sent to my phone as reminders for meeting and it would include an agenda as well. **F:** you said you unemployed? **P:** no, I work here at the school with Mr. Steyn. **F:** you said that you would like to start up a company. **P:** yes, I am already using my phone a lot and spending a lot on calls.

F: if you need information from the municipality would you phone or would you walk up? **P:** I would phone; it is much cheaper. If it's personal, I would go up. **F:** so, if you have problem with services e.g. the electricity goes out, would you phone? **P:** depend what the nature of the problem is. Say for instance your water was disconnected and you know that you had paid the bill, I will not phone because I know they would ignore me. I will go straight to their offices. If you personally, they would immediately send someone to attend to your problem. **F:** so it would affect which information you are looking for. **P:** if we have a municipal problem in the area, we would go to the councillors, because we elected them. **F:** you would personally go to him and not phone. **P:** yes. Like a lamppost, Eskom would take 2 week to repair it if you call them. If the councillor calls they would immediately come out to do it. **P2:** it is an expensive exercise to phone any government department or Eskom the worst. The first voice you hear on the other side is a machine, so your money is wasted on a machine. **F:** so there's a combination of inefficiencies, which is not actually part of our research. But I understand that

it is the high cost of a call that you are concerned about. In the some parts of the world, if you are calling a government department, the cost of the call is free. If you are calling locally, your mobile phone would an extra phone, you all would have reasonable home phones and that might be a couple of cents or something to call. It is the combination of the two systems, one being inefficient and the one being expensive.

F: nobody's using their phones to access information, which allows them to do things more efficiently? For example: running a business. **P:** if you have a business you would use your phone in that way. **F:** but nobody here uses it that way; you would rather drive to find out what's in the market, instead of actually phoning and saving yourself the trip. **P:** depends on what you calling for. If I have to call a place in Cape Town, it would really less to call instead of going there. If you call provincial government or national, in say, Pretoria, don't use your mobile phone**.**

F: if you need to call national government, would you use your mobile phone? P: No, definitely a land line because you are lined up and you might be number 75. **F:** say you call Home Affairs in Pretoria and you are number 75 and on hold, would you give up on it? P: depends, on the nature of the call. **F:** you've got the option of a Telkom line and you would use that, and you only have a mobile phone, not a fixed line; so, if you have to call a government office in Pretoria, would you find a pay phone to do that? Or would you say: I'll spend R40 on this call, perhaps, **P:** yes. **F:** I'm using an extreme example, but would any of you go to a pay phone if your airtime runs out? **P:** sometimes. **F**: so you would resort to the pay phones. **P:** if I have about R20 on my Telkom phone, I will rather use a public phone, I would not call Pretoria to deal with a query from my mobile phone, I would however, call from a pay phone and ask them to call me back. **F:** just wanted to know whether any of you used the mobile phones to communicate texting services from the broadcasting services, of the competitions. **P:** yes, I have. I have

done some of those before, but will not do it again. This is probably my perception: but I feel that it is only white or black people who win these competitions. **F:** is the cost of it an issue? Sometimes it is very expensive. **P:** yes, R5. Its' heavy but if you have money you can play the game.

F: do you perhaps use your phone to make a comment/ respond to a topic raised in the media**. P:** yes. **F:** because that costs R2 at a minimum. **P:** I would always respond to an issue I feel passionate about irrespective of the cost. **F**: do you think that the mobile phone plays a critical role in you being represented as South African citizens? **P:** yes. **F:** but you could also use your fixed line. **F:** can I ask who plays the lottery? P: yes. **F**: how much do you spend? **P:** sometimes R25. **F:** no serious spending like R100. You wouldn't spend more than R25? **P:** it not just about the winnings, I think of the organizations benefiting for the money as well. **F:** so, you think it is a good as well. **F:** can I ask you about your weekly expenditure. **P:** in the 2 months I have this phone is only bought airtime twice; R12 each time. **F:** so, you spending more on the lottery than on the mobile phone. **P:** yes, but if I am lucky, I will be able to spend more. **P2:** but I like gambling. I would spend R150 on my phone monthly. **F:** and on the lottery? **P:** R30, R14; but if I win, I would the money aside to bet bigger next time. **F:** would you say that you are spending more on the lottery than on the mobile phone? **P:** no. I would play the winning numbers over and over again. About 10 draws or 5 draws, and that's not a lot. **F:** I would just to clear up so issues that we unclear to me. You were saying that your wife has a mobile phone and that she operates it completely independently; you didn't tell us; does your wife have a phone? **P:** no we both use this phone. She would use this phone to do a please call me. Most of the children would do that for us**.**

F: Simon, you said you have family, and you just have this one mobile phone in the family? **P:** I have 2 big girls and 2 little girls and my wife, each have a phone. **F:** your wife works? **P**: yes and she takes care of her own phone**. F:**

you run completely separate phones. So, it was only you who have given your phone to your girl friend and pay her bill. Is there nobody else who has similar obligations? You said you pay your daughters bills. **P:** yes. **F:** and your wife works and she takes care of her own bill**.** **F:** does anybody necessarily get airtime from other family members? **P:** my daughter sends me airtime from Johannesburg. **F:** she sends you airtime, is it on a monthly basis? **P:** yes. **F:** do you only have a Telkom line? **P:** yes, but my sister and my mother have mobile phones. **F:** if you want to use the Telkom line, do you have to ask your mother or can you use it any time? **P:** I have to ask my mother. **F:** She pays the bill. **P:** it's a pre-paid. **F**: and she pays**. P:** yes. **F**: do you sometimes assist her with airtime? **P**: yes, F: and she allows you to use it quite freely? **P:** yes.

F: Thank you very much for sharing so much with us. It's been very insightful for us. Is there anything more from your side? **F2:** No I think I'm covered. Thank you for being so welcoming, and generous with your time. We have to thank Geraldine, otherwise we would still be wondering around the streets. Thank you**.**

End of Male FGD