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*Information and Communication Technologies (ICTs) for Poverty
Alleviation: A Study of Cameroon Telecommunications (CAMTEL)'s
Ability to Contribute to Poverty Alleviation in Cameroon.*

**A dissertation submitted to the Communications Management
Programme of the Coventry Business School by**

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ACRONYMS

AIDS- Acquired Immune Deficiency Syndrome
ANTIC – Agence Nationale de Technologies de l’Information et la Communication
APDIP – Asia-Pacific Development Information Programme
ART – Agence de Régulation des Télécommunications
ASAFE – Association pour le Soutien et l’Appui à la Femme
CAMTEL – Cameroon Telecommunications
CDMA – Code Division Multiple Access
CENADI –Centre National du Développement de l’Informatique
CMDG – Cameroon Millennium Development Goals
CMR – Centre Multi-media des Ressources.
CMT –Community Multi-purpose Telecentre
CNDT –Centre National de Développement des Technologies
CRTV- Cameroon Radio and Television Corporation
FOSS – Free Open Source Software
GATS – General Agreement on Trade in Services
GDP –Gross Domestic Product
GSM – Global System for Mobile Communications
HDI – Human Development Index
HIPC – Heavily Indebted Poor Countries Initiative
HIV –Human Immunodeficiency Virus
HPI –Human Poverty Index
IAI – Institut Africaine de l’Informatique
ICT – Information and Communication Technologies.
IMT – International Mobile Telecommunication
ISP – Internet Service Provider
ITU –International Telecommunications Union
MDG – Millennium Development Goals
MTN – Mobile Telephone Network
ONT – Observatoire des Nouvelles Technologies
PPP –Purchasing Power Parity
PRSP – Poverty Reduction Strategy Paper
SAP – Structural Adjustment Programme
UN –United Nations



UNDP –United Nations Development Programme
WISIS –World Summit on Information Society

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EXECUTIVE SUMMARY

Today, poverty has been proven to be the root cause of many difficulties faced by mankind. This is especially more evident in developing countries where huge chunks of their populations live on less than a dollar a day. Africa has singled itself out as the continent that harbours a majority of these poor people. The lack of information accounts for a greater part of this situation.

Information and Communication Technologies (ICTs) are widely proving to have the ability to alleviate this poverty by creating an enabling environment in which the poor has the ability to access abundant information necessary for the improvement of their lot. This information concerns ways of attaining better livelihoods and knowing about economic opportunities that are capable of transforming lives.

This study examines the ability of ICTs to alleviate poverty in two provinces of the Republic of Cameroon. These provinces are selected because they are home to some of the poorest Cameroonians. A questionnaire was administered in these provinces alongside interviews with various stakeholders and community leaders.

The research findings unveil that ICTs were being effectively used to alleviate poverty by using them to spread agricultural “good practice” in the local communities. This information is very important to these communities since they very much depended on agriculture for subsistence. ICTs were also being used to spread information on health issues, which are very important for the prevention of diseases like dysentery and cholera, which claim many lives in these communities. ICTs were making it possible for the local villagers to get added income through money transfer.

Some barriers to ICTs appropriation were also identified. These included low levels of literacy, high cost of accessing ICTs, and the non-availability of ICTs like the Internet in certain communities.

The findings also reveal that the poor were not only using ICTs for poverty alleviation but mostly for security and social issues. One important aspect of the findings was the role played by intermediaries like teleshop owners, call box operators and telecentre staff in facilitating access and use in these communities.

The study concludes by stressing on the need for further research in the domain in Cameroon. It also calls for the need to strengthen the capacity of the various ICT policy makers and support local organizations to effectively apply ICTs for the benefit of the poor.



CHAPTER ONE

“We are going through a historic transformation in the way we live, learn, work, communicate and do business. We must do so not passively, but as makers of our destiny. Technology has produced the information age. Now it is up to all of us to build an information society.

...We are all familiar with the extraordinary power of information and communication technologies. From trade to telemedicine, from education to environmental protection, we have in our hands, on our desktops and in the skies above, the ability to improve the standards of living for millions upon millions of people.”

Kofi Annan

World Summit on Information Society

Geneva, 2003

1.0 INTRODUCTION

As we move into the third millennium, there is a serious challenge facing mankind. This challenge is poverty alleviation. The developing countries are the most hit. A greater majority of people living on the threshold of less than a dollar per day is found in these developing countries. Many people today hold the opinion that the effective use of Information and Communication Technologies (ICTs) is the key to addressing this challenge.

The 21st Century is termed the information century, yet millions of people have never made a telephone call. The absence of modern tools for gathering information and communicating is particularly evident on the African continent. Poverty in Africa is widespread and without the ability to communicate the continent will remain poor and isolated lacking the means to participate in the global society. Poor people in rural areas have to travel for days to trade their products, to get food and water as well as to receive government services. Such travel is often risky and expensive and the outcome uncertain. With the use of ICTs this risk can be diminished substantially and services can be delivered effectively. This relation has been proved over and over when we see that poor people often chose, if they have the opportunity to make use of ICTs for services and economic information gathering.

This study is an attempt to bring to light the contribution of Cameroon Telecommunications (CAMTEL) as the ICT leader in Cameroon to the alleviation of poverty in Cameroon. Cameroon Telecommunications is the ICT leader in Cameroon



and a state-owned landline telecommunications operator that has just created a mobile subsidiary and is one of the early birds in the deployment of the CDMA technology in Africa. The company also owns the main telecommunications backbone infrastructures in Cameroon. Cameroon Telecommunications is also looking forward to the deployment of the IMT 2000 technology, which promises to revolutionize mobile telecommunications.

The study also tries to bring out the role that Cameroon Telecommunications can play in leading other ICTs like radio, television and the Internet to form a strong front capable of alleviating poverty in Cameroon. It should be noted that a combination of the various ICTs is fundamental to creating an ICT-environment that is strong enough to push back poverty which has been plaguing especially rural areas in Cameroon for a very long time. Cameroon Telecommunications and other ICTs are therefore valuable tools that the government of Cameroon can use to alleviate poverty and achieve the Millennium Development goals (MDGs)

The study seeks to address the so-called digital divide, which is a description of the stark disparity between the few people with abundant access to ICTs and the vast majority without any at all. It also tries to propose policy formulation strategies and implementation that can be used to overcome this divide. The study proposes the creation of an information society for Cameroon that will enable the active participation of all segments of society in development. An information society enables citizens to have information on all opportunities available and through ICTs.. Information and knowledge are the fundamental keys of alleviating poverty as Roger W. Harris notes;

“Information and Knowledge are critical components of poverty alleviation strategies, and ICTs offer the promise of easy access to huge amounts of information useful for the poor. However, the digital divide is argued to be the result rather than the cause of poverty and efforts to bridge it must be embedded within effective strategies that address the causes of poverty”

Roger W. Harris. (2004) Information and Communication Technologies for Poverty Alleviation. UNDP-APDIP www.apdip.net

Lastly, this study seeks to establish the link between ICTs and the Millennium Development Goals (MDGs) and the common front they can establish to alleviate poverty in Cameroon. Cameroon is a signatory to the millennium declaration and therefore has every interest to try to attain the goals outlined to be achieved by 2015. Eradicating extreme poverty is one of the goals.

At the end of the study, the findings will lead to conclusions and recommendations to the stakeholders in the poverty alleviation struggle. These stakeholders include government decision makers, local councils and all other stakeholders in poverty alleviation. An attempt will be made to propose the appropriate methodology to be used on policy formulation strategies that will create the enabling environment that will put ICTs at the center of focus for the struggle against poverty in Cameroon.



1.2 BACKGROUND OF THE STUDY.

1.2.1 BASIC DATA ON CAMEROON.

The Republic of Cameroon is situated on the Gulf of Guinea, between 8° and 16° longitude to the east of the Greenwich Meridian, and between 2° and 13° latitude north. It is at the junction of western and central Africa, and is situated on one of the major faults in the earth's crust, in a South-West/North-West direction. Cameroon covers an area of 475.440 Km², which is a little over 1 % of the African continent. It is bordered to the South by Equatorial Guinea, the Congo and Gabon; to the West by Nigeria; to the East by the Central African Republic and Chad and to the North by a portion of Lake Chad.

In 2004, the Cameroonian population was estimated at nearly 16.000.000 inhabitants, with 43.3% men and 50.7 % women. Cameroon has a population density that is approximately 32 inhabitants per Km². The growth rate is 1.8% per year.

Table 1 illustrates the demographic trends of Cameroon from 1975. It should be noted that the population evolved from 7.6 million inhabitants in 1975 to 16 million in 2004. It is also projected that the population of Cameroon will reach 19 million by 2015. The growth rate is however decreasing due to diseases like HIV/AIDS and poverty.

Table 1

CAMEROON DEMOGRAPHIC TRENDS

Total population (millions), 1975	7.6
Total population (millions), 2004	16.0
Total population (millions), 2015	19.0
Annual population growth rate (%), 1975-2004	2.6
Annual population growth rate (%), 2004-15	1.6
Urban population (% of total), 1975	27.3
Urban population (% of total), 2004	53.7
Urban population (% of total), 2015	62.7
Population under age 15 (% of total), 2004	41.6
Population under age 15 (% of total), 2015	37.2
Population ages 65 and older (% of total), 2004	3.7
Population ages 65 and older (% of total), 2015	3.9
Total fertility rate (births per woman), 1970-75	6.3
Total fertility rate (births per woman), 2000-05	4.6

Source: Human Development Report 2006

French and English are the official languages. The system of government is a very centralized presidential regime. The President of the Republic is elected for seven years through direct popular vote and the mandate is renewable once.



Parliament comprises two chambers: the National Assembly (180 deputies elected through direct popular vote for 5 years) and the Senate (Still to be established). There are ten provinces headed by Provincial Governors and 58 Divisions headed by Senior Divisional Officers.

There are about 150 political parties. Cameroon is a member of the Commonwealth and La Francophonie. She is also a member of the United Nations and the African Union.

Table 2

Cameroon Data Profile			
	2000	2004	2005
People			
Population, total	14.9 million	16.0 million	16.3 million
Population growth (annual %)	2.1	1.8	1.8
Poverty headcount ratio at national poverty line (% of population)	..	..	..
Life expectancy at birth, total (years)	47.0	46.0	..
Fertility rate, total (births per woman)	4.8	4.8	..
Mortality rate, infant (per 1,000 live births)	88.0	87.2	..
Mortality rate, under-5 (per 1,000)	151.0	149.4	..
Births attended by skilled health staff (% of total)	60.0	62.0	..
Malnutrition prevalence, weight for age (% of children under 5)	..	18.1	..
Immunization, measles (% of children ages 12-23 months)	49.0	64.0	..
Prevalence of HIV, total (% of population ages 15-49)	..	5.5	5.4
Primary completion rate, total (% of relevant age group)	53.3	63.3	..
School enrollment, primary (% gross)	91.8	116.8	..
School enrollment, secondary (% gross)	29.0	43.8	..
School enrollment, tertiary (% gross)	4.7	5.3	..
Ratio of girls to boys in primary and secondary education (%)	..	80.8	..
Literacy rate, adult total (% of people ages 15 and above)			

Source: World Development Indicators Database, April 2006.

Table 2 is an illustration of population trends between 2000 and 2005. As noticed, while the total population moves from 14.9 million in 2000 to 16.3 million in 2005, the population growth rate declines from 2.1% in 2000 to 1.8 % in 2005. Life expectancy also drops from 47 years in 2000 to 46 years in 2004. There are however positive areas like education, which is on the increase in all aspects. This is seen in the primary school completion rate that increased from 53.3 million in 2000 to 63.3 million in 2004. School enrolment at primary level also increases from 91.8 million in 2000 to 116.8 million in 2004. Secondary school enrolment on its part also moves up from 29.0 million in 2000 to 43.8 million in 2004.



1.2.2 ECONOMIC DATA ON CAMEROON.

Table 3

ECONOMY	2000	2004	2005
GNI, Atlas method (current US\$)	..	14.2 billion	16.5 billion
GNI per capita, Atlas method (current US\$)	..	890.0	1,010.0
GDP (current US\$)	10.1 billion	15.8 billion	17.0 billion
GDP growth (annual %)	4.2	3.7	2.6
Inflation, GDP deflator (annual %)	..	1.1	4.8
Agriculture, value added (% of GDP)	38.5	41.1	40.8
Industry, value added (% of GDP)	17.8	14.6	14.0
Services, etc., value added (% of GDP)	43.8	44.3	45.2
Exports of goods and services (% of GDP)	23.3	19.4	24.7
Imports of goods and services (% of GDP)	19.7	19.8	24.8
Gross capital formation (% of GDP)	16.7	18.9	19.7
Revenue, excluding grants (% of GDP)	..	..	..
Cash surplus/deficit (% of GDP)	..	..	..
States and markets			
Time required to start a business (days)	..	37.0	37.0
Military expenditure (% of GDP)	1.3	1.4	1.3
Fixed line and mobile phone subscribers (per 1,000 people)	13.3	102.7	..
Internet users (per 1,000 people)	2.7	10.4	..
Roads, paved (% of total roads)	..	..	..
High-technology exports (% of manufactured exports)	1.1	1.3	..
Global links			
Merchandise trade (% of GDP)	33.0	31.0	29.1
Net barter terms of trade (2000 = 100)	100.0	112.3	..
Foreign direct investment, net inflows (BoP, current US\$)	-100,000.0	291.0 thousand	..
Long-term debt (DOD, current US\$)	7.8 billion	8.6 billion	..
Present value of debt (% of GNI)	..	19.7	..
Total debt service (% of exports of goods, services and income)	..	..	..
Official development assistance and official aid (current US\$)	379.9 million	761.5 million	..
Workers' remittances and compensation of employees, received (US\$)	11.0 million	11.0 million	..
Source: World Development Indicators database, April 2006			

Table 3 depicts economic data on Cameroon. As seen on the table, the GDP moves from 10.1 billion US dollars in 2000 to 17.0 billion US dollars in 2005. It should however be noted that the GDP annual growth rate has been falling reason why Cameroon needed a Poverty Reduction Strategy Paper to reverse the trend. This growth rate fell from 4.2 % in 2000 to 2.6 % in 2005. Inflation has been on the



increase especially from 2004 to 2005 when it moves from 1.1 % to 4.8 %. Agriculture as a percentage of the GDP witnessed a very slow increase. The number of telephones per 1000 people witnessed a significant increase from 13.3 in 2000 to 102.7 in 2004. The number of Internet users per 1000 people also increased from 2.7 in 2000 to 10.4 in 2004. This sudden increase in the number of mobile phone subscribers is the fruit of the liberalization of the telecommunications sector which took place in 1998.

Table 4 portrays the trends of Cameroon's structure of trade. While the import of goods and services as a percentage of GDP moved from 17 % in 1990 to 26 % in 2004, the export of goods and services as a percentage of GDP for the same period moved from 20 % in 1990 to 26 % in 2004. While primary products constituted 91 % of merchandise exports in 1990 manufactured goods only constituted a meager 9 % for the same year. The terms of trade stood at 100 in 1980 and 140 in 2004.

Table 4
Cameroon's structure of trade

Imports of goods and services (% of GDP), 1990	17
Imports of goods and services (% of GDP), 2004	26
Exports of goods and services (% of GDP), 1990	20
Exports of goods and services (% of GDP), 2004	26
Primary exports (% of merchandise exports), 1990	91
Primary exports (% of merchandise exports), 2004	95
Manufactured exports (% of merchandise exports), 1990	9
Manufactured exports (% of merchandise exports), 2004	5
High-technology exports (% of manufactured exports), 1990	3
High-technology exports (% of manufactured exports), 2004	1
Terms of trade (1980=100), 2004	140

Source: Human Development Report 2006.

1.2.3 CAMEROON HUMAN DEVELOPMENT INDEX

The human development index (HDI), which is a composite measure of human development, looks beyond GDP to a broad definition of well-being. The HDI indicators include living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and enrolment at primary, secondary and tertiary levels) and having a decent standard of living (measured by purchasing power parity, PPP, income)

Figure 1 highlights the very large gaps in well-being and life chances that continue to divide our increasingly interconnected world. It is also an illustration that countries on the same level of HDI like Cameroon can have very different levels of

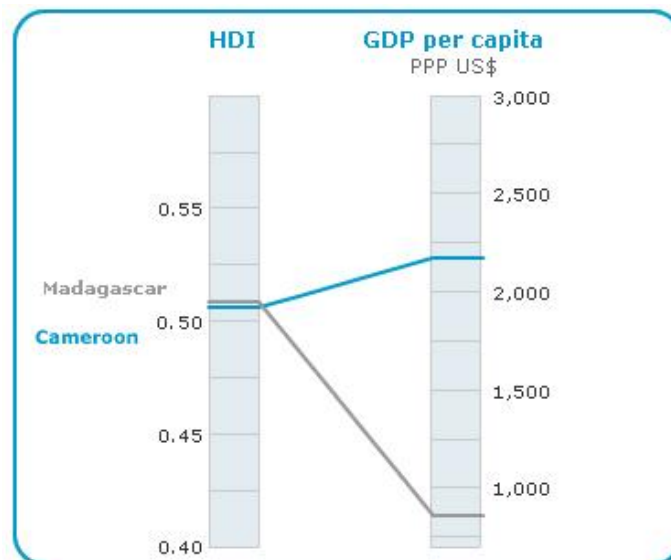


income and life expectancy. This is clearly illustrated by the comparison between Cameroon and Madagascar that have almost the same HDI but very different GDPs. It should be noted that since the mid 1970s almost all regions have been progressively increasing their HDI score. The major exception is Sub-Saharan Africa. Since 1990, it has stagnated not because of economic reversal but mainly due to the catastrophic effects of HIV/AIDS on life expectancy.

CAMEROON HDI

Fig 1

The human development index gives a more complete picture than income



Source: Human Development Report 2006

Table 5: CAMEROON'S HUMAN DEVELOPMENT INDEX 2004

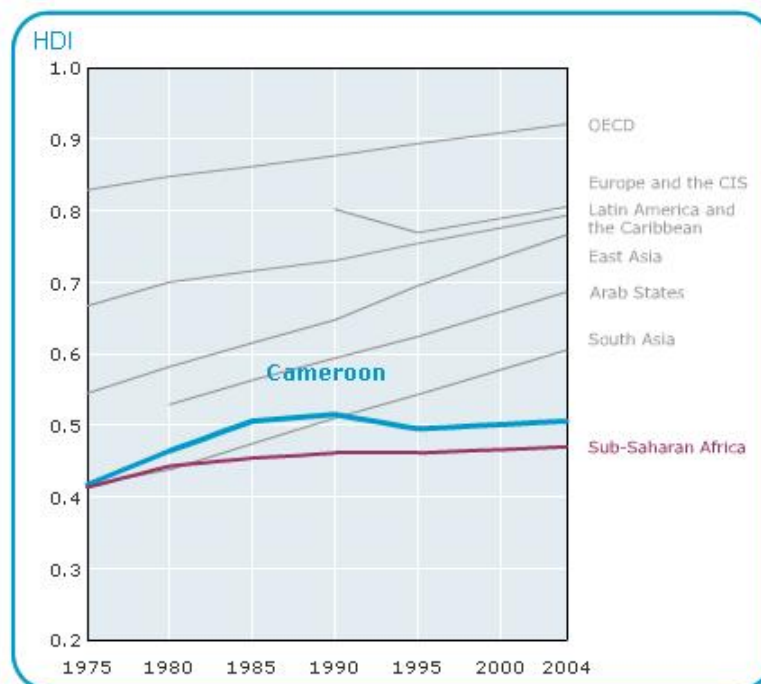


HDI Value	Life expectancy at birth (years)	Adult literacy rate (% ages 15 and older)	Combined primary, secondary and tertiary and gross enrolment ratio (%)
1. Norway (0.965)	1. Japan (82.2)	1. Georgia (100.0)	1. Australia (113.2)
142. Timor-Leste (0.512)	157. Tanzania (45.9)	99. Lao (68.7)	124. Sri Lanka (62.7)
143. Madagascar (0.509)	158. Cote d'Ivoire (45.9)	100. Zambia (68.0)	125. Syria (62.5)
144. Cameroon (0.506)	159. Cameroon (45.7)	101. Cameroon (67.9)	126. Cameroon (62.3)
145. Uganda (0.502)	160. Guinea Bissau (44.8)	102. Angola (67.4)	127. India (62.0)
146. Swaziland (0.500)	161. Niger (44.6)	103. Congo Dem (67.2)	128. Lao (61.8)
177. Niger (0.311)	177. Swaziland (31.3)	128. Mali (19.0)	172. Niger (21.5)

Source: Human Development Report 2006

Table 5 paints a clear picture of Cameroon's human development index by placing the country in its rightful place on the world classification. In terms of HDI value, Cameroon is ranked 144th out of 177. It is also ranked 159th out of 177 on life expectancy at birth. On adult literacy, Cameroon is classified 101st out of 128 countries classified. Finally, Cameroon is ranked 126th out of 172 countries on combined primary, secondary and tertiary education enrolment ratio.

Fig 2



Source: Human Development Report 2006

Figure 2 focuses on the most deprived in multiple dimensions of poverty. The Human Poverty Index for developing countries (HPI-1) focuses on the proportion of people



below a threshold level in the same dimensions of human development as the Human Development Index- living a long and healthy life, having access to education, and a decent standard of living. By looking beyond income deprivation, the HPI-1 represents a multi-dimensional alternative to the \$1 a day (PPP US\$) poverty measure. According to *figure 2*, the HPI-1 value for Cameroon is 35.6 and ranks Cameroon 61st among 102 developing countries for which the index has been calculated.

Table 6 is an illustration of Cameroon's human development index and trends it took from 1975 to 2004. The HDI evolved from 0.417 in 1975 to 0.515 in 1990. These were the booming years when Cameroon enjoyed economic prosperity. The economic crises set in during the 1990s and the HDI started declining. This was when the Cameroon government was desperately trying to adopt structural adjustment programmes (SAPs) of the World Bank. The HDI continued falling until the Cameroon government went in for the Heavily Indebted Poor Countries HIPIC initiative in 2000. This saw the birth of the Poverty Reduction Strategy Papers (PRSPs).

Table 6

1. CAMEROON HUMAN DEVELOPMENT INDEX

Human development index (HDI) value, 2004	0.506
Life expectancy at birth (years) (HDI), 2004	45.7
Adult literacy rate (% ages 15 and older) (HDI), 2004	67.9
Combined gross enrolment ratio for primary, secondary and tertiary schools (%), 2004	621
GDP per capita (PPP US\$) (HDI), 2004	2,174
Life expectancy index	0.34
Education index	0.66
GDP index	0.51
GDP per capita (PPP US\$) rank minus HDI rank	- 13

2. Human development index trends

Human development index, 1975	0.417
Human development index, 1980	0.464
Human development index, 1985	0.506
Human development index, 1990	0.515
Human development index, 1995	0.495
Human development index, 2000	0.502
Human development index, 2004	0.506

Source: Human Development Report 2006

The above background and data reveals that Cameroon was in dire need of an appropriate to reverse the economic downturn thereby alleviating poverty. This is the



reason why it readily subscribed to the millennium declaration when the opportunity presented itself.

When the United Nations Organization adopted a landmark document in the millennium summit in September 2000 entitled “**the Millennium Declaration**” in which ambitious goals called the “**Millennium Development Goals**” (MDGs) were outlined, the Cameroon government joined in by adopting its own millennium goals reflecting its local realities. Poverty alleviation and the need to make information available to all by 2015 are outstanding amongst the goals.

The World Bank in its effort to help Cameroon achieve these goals identified Cameroon Telecommunications (CAMTEL) in its “**Global Partnership for Development Initiative**” as one of the prime actors and tool for meaningful development in Cameroon. The choice of Cameroon Telecommunications is justified by the fact that as a state-owned telecommunications operator, and ICT leader, it owns and controls the telecommunication backbone infrastructures necessary for interconnection and the entry and exit points into Cameroon through its Satellite Earth Stations and Submarine fiber optic cable.

Cameroon Telecommunications also has the most experienced human resources given the fact that it inherited the most trained and experienced staff when the Telecommunication sector was liberalized in 1998 and therefore has the capability of piloting an ICT revolution in Cameroon. This has been evidenced in its participation in the Community Multipurpose Telecentre (CMTs) project currently run by the Ministry of Posts and Telecommunications in collaboration with the International Telecommunications Union (ITU). These telecentres, located in poor enclave areas promise to be the greatest tool of bringing ICTs to the Cameroonian rural poor.

1.3 NATURE AND CONTEXT OF THE STUDY.

The nature and context of this study are focused on the prevailing situation of ICTs and poverty in Cameroon. The study also tries to find out how ICTs can help alleviate poverty in Cameroon. It also focuses on the legal framework that can create an enabling environment for easy ICT penetration in rural poor communities. It also focuses on policy formulation and product designed aimed at making ICTs accessible and affordable to the Cameroonian rural poor whose income is most of the time below subsistence level.

Relating to the prevailing situation of ICT access and use by the poor in Cameroon, the study seeks to find out how this access and use has been contributing to poverty alleviation. It identifies the barriers to access and proposes how these barriers could be surmounted. The deadline set forth to reduce poverty by halve in the MDGs is just ten years away. This study therefore attempts to chart out the road already covered by Cameroon and bring out what still remains to be done and attempt to suggest and recommend the best way forward.

Concerning the legal framework existing in Cameroon, the study sets out to find the fit between the existing framework and the prevailing environment especially,



that of the poor which the target group is. An appraisal of the existing situation will be done and suggestions and recommendations for the future proposed.

In order to effectively carry out this study under the outlined nature and context, the study has to rely heavily on guidelines drawn from the “**Cameroon Poverty Reduction Strategy Paper (PRSP)**,” and the “**Millennium Development Goals (MDGs)**”, “**the Global Partnership for Development Initiative**”, and “**the Roadmap Towards the Implementation of the United Nations Millennium Declaration**”.

CAMEROON POVERTY REDUCTION STRATEGIC PAPERS (PRSPs) AND THEIR RATIONALE.

When the economic crisis hit the African continent in the late 80s, many countries started looking for imported models and other tools to fight the crisis. The World Bank and the International Monetary Fund proposed the structural adjustment programmes (SAPs) which at the time were thought to have the magic wand, which can be used to chase away the crisis. Their failure in the late 90s sent both the countries, which had subscribed, and the World Bank looking for other solutions and using the failures of the SAPs as the basis of reflection. The offspring of this reflection was the Heavily Poor Countries Initiative (HIPIC).

The countries that subscribed to the new programme were asked to define their development priorities hence the birth of Poverty Reduction Strategy Papers (PRSPs). Their underlying rationale is based on the fact that the countries themselves design pro-poor projects taking into consideration local realities instead of relying on imported models that have shown their limits.

When Cameroon was declared eligible for the HIPC initiative in June 2000 by the Bretton Woods institutions, it designed its first Poverty Reduction Strategy Paper, which was submitted for approval in 2003. This paper critically analysed the macro-economic, structural and social policies in support of growth and poverty reduction as well as associated external financing. The PRSP used the Millennium Development Goals as the essential benchmark.

The main missions or theoretical underpinnings of the PRSP include consolidating stability and reinforcing macro-economic management. In particular, it aims at devising new ways of consolidating non-petroleum revenue and improving the management of public expenditure.

The PRSP is also aimed at improving economic performance through stimulating economic growth, diversifying the economy and boosting the private sector.

Poverty Alleviation and Social Development also featured highly on the PRSP. The PRSP proposes ways of reducing monetary poverty, improving education, health and integrating the vulnerable segments of the Cameroonian society in the mainstream of decent life.

The growth and poverty reduction strategy contained in the PRSPs is based on seven strategic areas each of which comprises guidelines and an action plan that the



Cameroon government adjusts periodically in the light of environmental developments, available resources and the progress made in implementing the actions.

The seven strategic areas include; the promotion of a stable macro-economic framework, the consolidation of growth through economic diversification, the promotion of the private sector as the engine of growth and partner in the provision of social services, the development of basic infrastructure, natural resources, and environmental protection. The papers also prescribes accelerating regional integration through the Central African Monetary Commission (CEMAC), strengthening human resources , the social sector and the integration of disadvantaged groups into the economy and lastly the improvement of the institutional framework, administrative management and governance.

METHODOLOGY.

This dissertation is designed with a clear research question. This question is whether Cameroon Telecommunications has the ability to contribute to poverty alleviation in Cameroon. However, this research question is not formulated as a hypothesis to be tested. Rather, the methodology I have settled for is descriptive and eclectic. Eclectic research methodology is based on a close analysis of the issues at stake in a way that is situational sensitive and reasonable.

The eclectic method uses a combination of qualitative and quantitative approaches in carrying out research. The main strength or characteristic of this methodology lies in the use of multiple source evidence to analyze situation and draw conclusions.

My methodology is essentially composed of three stages; documentary research, collection of qualitative and quantitative data on policy initiatives, stakeholders, organizations, manpower and any other information which could be helpful in the elucidation of Cameroon Telecommunication's contribution to poverty alleviation in Cameroon. This methodology also uses semi-directive interviews and questionnaire-based surveys of the key players and stakeholders.

This research is carried out in a number of organizations and communities. Outstanding amongst them is Cameroon Telecommunications (CAMTEL), which is the focus organization.

Another important organization in which this research is carried out is the National Agency for Information and Communication Technologies (ANTIC). It is the government body with mission to encourage the involvement of all citizens in the information society in Cameroon. It encourages the emergence of a modified legal framework geared towards the protection of people and goods. It aims at placing Information and Communications Technologies at the service of individuals and businesses as well as state services and public organizations by promoting easy access to essential public information. ANTIC is the main promoter of e-commerce and e-business in Cameroon.



Since this dissertation intends to find ‘best practices’ in policy formulation, it is incumbent for the Cameroon Telecommunications Regulatory Board (ART) to be one of the organizations in which research is carried out. The ART is a high level administrative authority, which has as objective to ensure respect of the principle of equal treatment for operators in the Telecommunications sector. The board ensures the respect of provisions of concessionary agreements, general conditions and government authorizations. This regulatory board ensures arbitration before any legal recourse, of disputes between the government and telecommunications operators that may arise during the government’s exercise of its terms of reference.

Another organization of interest to this study is the National Centre for Informatics Development (CENADI). This center is takes charge of the implementation of ICT-related government directives. It offers advisory services to the state, state corporations, and possibly private enterprises and local communities for better ICT appropriation. CENADI is the main body that takes care of the popularizations of ICTs in the government, and pertinent training of ICT technicians.

The National Centre for Technology Development (CNDT) is the monitoring organization of ICT acquisition in Cameroon. It is also one of the organizations in which this research is carried out.

This research is also carried out at the Observatory of New Information and Communication Technologies (ONT). This observatory is responsible for the development of information and communication technologies, and anticipating their impact on telecommunications needs and infrastructure in Cameroon.

The Centre for Multi-media Resources in Public Schools (CMR) is also one of the organizations that is of interest to this study. It promotes ICT appropriation by students and teachers in public schools. This center manages the reference centers in various parts of the country that are progressively deploying ICTs to schools nationwide.

Since this study is examining the role of ICTs in poverty alleviation, it is important that the research be carried out in the mobile telephone operators Mobile Telephone Network (MTN) Cameroon and ORANGE Cameroon. The main broadcasting corporation, Cameroon Radio and Television Corporation (CRTV) is also an important organization in which the research is carried out.

The main government ministries concerned with the research are the Ministry of Posts and Telecommunications and the Ministry of Communications. The Ministry of Posts and Telecommunications prepares the sectoral policy for the government while the Ministry of Communications controls the rural radio project, which is an important conveyor of knowledge and information to the hinterlands.

The final and most important places where this research is carried out are the rural communities of the Far North and North West Provinces of Cameroon. About 70 % of the populations of these areas are below the poverty threshold and ICTs are just making inroads into their lives. They are therefore on the verge of transition.

METHOD OF ENQUIRY.



The method of enquiry used to carry out this research is heavily dependent on participant observation, document analysis in target organizations, ministries and communities. The method also makes use of interviewing and administration of questionnaire-based surveys on stakeholders in target organizations, ministries and communities.

In each organization, ministry or community, key informant stakeholders are identified and interviews conducted with them around the research question. In cases where time constraints do not permit interviews, questionnaire-based surveys are administered. The results of these interviews and questionnaires are analyzed and conclusions drawn.

Another method of enquiry concerns document analysis. Here, permission is sought from the authorities in the different organizations, ministries and local municipalities of target communities to access vital documentation, information and statistics on the awareness, availability, access and use of Cameroon Telecommunications products and services in particular and ICTs in general by poor people in the rural communities.

The interviews conducted in the rural communities are aimed at assessing the awareness of the inhabitants of the availability of ICTs on one hand and the degree of affordability of the associated costs in particular.

The method of enquiry relating to the search for 'best practices' in policy formulation is done through interviews carry out with policy makers in government and decision-makers in Cameroon Telecommunications with the aim of uncovering the Cameroon government ICT policy strategies in general and Cameroon Telecommunications rural telecommunications rollout strategy in particular.

During the interviews, notes are taken especially on the responses of the stakeholders who answer pertinent questions on the ICTs landscape in Cameroon and perspectives. These notes are analyzed afterwards and conclusions drawn from them.

When the conclusions are drawn after the findings, suggestions and recommendations will be made to the government of Cameroon, and its internal and external stakeholders on how to use the findings to effectively formulate good ICT policies and strategies that will speed up the establishment of an information society for Cameroon.

LIMITATIONS OF THE METHOD OF ENQUIRY.

This method of enquiry though very suited for management research, has some limitations. The first and most significant limitation is that this method is very costly and time consuming, as large volumes of documents have to be consulted as well as numerous interviews carried out alongside questionnaires administered. The researcher also has to be permanently on the field photocopying huge volumes and recording or transcribing large volumes from interviews.

Also, with this method, it is often difficult to draw definitive conclusions from findings or generalize them to larger groups because of the small scale of the method and the often quite unrepresentative samples that are sometimes used.



The richness of data from interviews and documentary analysis is entirely dependent on the interviewer, the deeper he probes, the richer the data obtained.

Since this particular research is concerned with issues of policy, the information from government sources was very difficult to obtain as the stakeholders in the very departments always referred the researcher to the minister himself or the departmental head. Even in cases where access was obtained, photocopy or extraction of documents was restricted.

THEORITICAL FRAMEWORK (ICT POLICY FORMULATION)

An ICT policy is a framework that helps a country or jurisdiction in its use of ICT tools, and secures the benefits of information society for all. These policies need to be planned in order to marry the needs of the people with the opportunities and possibilities that are available through the use of ICTs. ICT policy formulation must therefore be based on the best information and intelligence available. In order to be successful, it should be undertaken in consultation with stakeholders to help secure beneficial and realistic outcomes. ICT policies deal with issues related to information dissemination and use as well as issues related to the spread and use of the technology itself.

ICT policies alone address specific issues. When considering a larger whole, such as the development needs of a country, community or jurisdiction, it is necessary to think in terms of strategy, in this case, an e-strategy. A strategic approach denotes a process involving analysis of priorities and constraints before arriving at a recommendation for the resolution of a given issue.

One of the main objectives of ICT policies and strategies is to ensure the greatest possible diffusion of ICTs commensurate with national needs, ambition, specificities and concerns. In this light, ICT policies must take into account local, national and international issues as well as sectoral concerns.

ICT policies and strategies need to be integrated into broad development concerns and mainstreamed into all aspects of society and development planning. Since these issues are largely crosscutting and interrelated, a participatory mechanism is essential to ensure that policies correspond to real concerns and are supported by stakeholders. For the same reason, it will be useful to consider establishing an independent entity created by the government or identifying an independent organization or not-for-profit organization to manage and implement the ICT strategy.

In summary, the following principles should be taken into account during ICT policy formulation and implementation. The first principle is that is that of providing the greatest access possible to the greatest majority consistent with national and human development goals. This means that everyone and every group should be included in the process without exception.

Another principle is that the policy should adopt an integrated and pro-development approach, with positive impacts on people, rather than technology deployment, as the main outcome.



Care should be taken to make sure that the country or jurisdiction base policies and interventions on local needs assessments and on what the market can bear. To be successful, ICT policies should be realistic and correspond to local, regional and international realities.

A good ICT policy should be formulated to adopt a participatory approach in all steps in the development and implementation of the vision and the ICT strategy. To achieve this principle, ICT policy formulators should consult widely and often and do everything never to forget the marginalized and rural communities.

The ICT policy formulators should not also forget to include clauses that can promote partnerships between development actors, especially public-private partnerships.

In addition to respecting these principles, there are some parameters that should be considered during ICT policy-making and strategizing.

The first parameter is that a good ICT policy, which provides for the greatest access for the greatest majority should ensure that technology rollout is demand-driven as well as equitable and consistent with the need to ensure universal access. The state and/or privatized telecommunications operators must undertake a market survey to decide on the extent of their investments in connectivity.

Another parameter is to put in place policies that guarantee a given level of service to the consumer and mandate regular audits of network performance and service delivery by the regulator. This is part of a requirement for reviewing and revising the needs and rights of the consumer to be protected from fraud and other wrongdoing in cyberspace. Many, if not most, service providers deliver less than the nominal levels of service (bandwidth is the most common or obvious one) that they promise to their clients, but do not fully fulfill the promise.

ICT policy formulators should make sure that privacy and confidentiality policies, regulations and laws are put in place, recognized by the laws and respected. It is important to respect the privacy of peoples and organizations while ensuring connectivity. Thus, it may not be a good idea to centralize all databases with personal information in one government facility.

When formulating an ICT policy, and strategy note should be taken of the fact that universal access provisions are very difficult to guarantee and are usually laid out over longtime scales because of the need to pay for the investment and the limited capacities of operators and governments to do so all at once.

Peering arrangements need to be made to ensure that the telecommunications service providers (GSM operators, ISPs, Paging Companies and Fixed Line operators) can interconnect their networks locally.



CHAPTER TWO

1.4 LITERATURE REVIEW.

Since the year 2000, a lot of literature has been written on ICTs and poverty in particular and ICTs and the Millennium Development Goals (MDGs) in general. The United Nations and the World Bank have included ICTs on the agendas of meetings relating to development. The United Nations has even created the UN ICT Taskforce, which is instrumental in advice and assistance to countries designing ICT initiatives. This theme moved to the centre of focus at the United Nations headquarters in New York from the 6th to the 8th September 2000, when the heads of state and government of member countries adopted a landmark declaration entitled “**United Nations Millennium Declaration**”. In this declaration, globalization was a central theme of the resolution as the members declared;

“We believe that the central challenge we face today is to ensure that globalization becomes a positive force for all the world’s people. For while globalization offers great opportunities, at present its benefits are very unevenly shared, while its costs are unevenly distributed. We recognize that developing countries and countries with economies in transition face special difficulties in responding to this central challenge. Thus, only through broad and sustained efforts to create a shared future, based upon our common humanity in all its diversity, can globalization be made fully inclusive and equitable. These efforts must include policies and measures, at the global level, which correspond to the needs of developing countries and economies in transition and are formulated and implemented with effective participation”

United Nations: Resolution 55/2 United Nations Millennium Declaration 18th Sept 2000.

After this summit, a lot has been going on in the different countries concerning ICT appropriation. This has been very remarkable in developing countries especially Asia where it is beginning to bear fruits. Sub-Saharan Africa has been lagging behind but of late has woken up as mobile phones and the Internet reach all rural areas. If this trend continues, then poverty alleviation can see the light of day soon.

All the members of the United Nations are committed to fighting poverty as they declare;

“We will spare no effort to free fellow men, women and children from the abject and dehumanizing conditions of extreme poverty, to which more than a billion of them are currently subjected. We are committed to make the right to development a reality for everyone and to freeing the entire human race from want. We resolve therefore to



create an environment-at the national and global levels alike- which is conducive to development and to the elimination of poverty”

United Nations: Resolution 55/2 United Nations Millennium Declaration 18th Sept 2000.

This was a clear signal that the war on poverty was underway and ICTs were undoubtedly identified as one of the weapons to be used in this war. At the level of Cameroon, the government decided to entrust the leadership of this campaign to Cameroon Telecommunications. This explains why this study is necessary to find out if this leader has the capacity and ability to effectively lead this campaign.

The enabling environment was identified as a critical factor that stands to help the warriors move on. This means that the developing countries need peace and stability, good governance within each country and at the international level as the enabling environment. They also need pro-poor policies especially in ICT acquisition and usage. These developing countries also need transparency especially in the financial, monetary and trading systems to achieve development. The United Nations members ended their resolution by pledging to;

“Ensure that the benefits of new technologies especially Information and Communication Technologies, in conformity with the recommendations contained in the ECOSOC 2000 Ministerial Declaration are available to all”.

United Nations: Resolution 55/2 United Nations Millennium Declaration 18th Sept 2000.

The United Nations Millennium Declaration was closely followed by the adoption of the Millennium Development Goals (MDGs). They represent a set of goals derived from the declaration and aimed at guiding the development process in the 21st Century. These goals included; halving extreme poverty and hunger by the year 2015, achieving universal primary education and hunger and gender equity, reducing under five child and mother mortality by two-thirds, reversing the spread of HIV/AIDS, halving the proportion of people without access to safe drinking water and ensuring environmental sustainability. Lastly, developing a global partnership for development, with targets for aid, trade and debt relief.

These Millennium Development Goals (MDGs), which constitutes a strong political mandate, are endorsed by all the leaders of the United Nations Organization member states. They offered a comprehensive and multi-dimensional framework, and set clear quantifiable targets to be achieved in all countries by 2015. They are central to the fight against poverty and the struggle to create opportunity, prosperity, health, safety and empowerment for all of the world’s people, especially the poorest and traditionally marginalized groups.

This dissertation is inspired by the Millennium Development Goals and especially Goal N* 1 which is concerned with the eradication of extreme poverty and hunger. Since ICTs are often associated only with the most sophisticated and



expensive computer-based technologies, many underestimate their capacity to contribute to meeting development goals. To get a wholesome view of ICTs this dissertation will take those ICTs to include the full range of electronic technologies and techniques used to manage information and knowledge. The definition advocated by the United Nations Development Programme, UNDP therefore sounds more plausible to be adopted as a working definition for this dissertation;

“ICTs are basically information –handling tools, a varied set of goods, applications and services that are used to produced, store, process, distribute and exchange information. They include the “old” ICTs of radio, television, and telephone, and the “new” ICTs of computers, satellites and wireless technology and the Internet.”

UNDP.

In April 2003, the government of Cameroon published its first Poverty Reduction Strategic Paper (PRSP). It identified good telecommunications infrastructure as a prerequisite for effective ICT appropriation which can lead to poverty reduction. This infrastructure can carry information and knowledge, which are fundamental to development to rural areas, which are in dire need of this information and knowledge. It was this paper that enabled the Cameroonian decision-makers to form a more precise understanding of the relationship between ICTs, development and poverty alleviation.

The present focus on the Millennium Development Goals and Information and Communications Technologies especially the continuing uncertainty and confusion on the role that ICTs can play in achieving them has been a serious theme of debate in both the academia and development circles. It is now a matter of immediate urgency that policy formulators, decision-makers, development specialists and civil society especially in developing countries clearly defined and understands the relationship between ICTs, MDGs and poverty alleviation.

Since the year 2000, a lot of literature has been written and published on ICTs and Poverty Alleviation. The sheer volume of the literature poses a challenge. However, there are recurring themes, which can serve as guideposts to the review of literature on ICTs and Poverty Alleviation. The first recurrent theme is the identification of those who were target beneficiaries in the studies under review. Another theme is to discern what the poverty dimensions under scrutiny were. This can be followed by an outline of issues and topics addressed. The key findings and the lessons learnt also constitute a recurrent theme found in most literature on ICTs and Poverty Alleviation. The theme of new issues raised for further examination also characterized many works on ICTs and Poverty Alleviation. It is also important when reviewing literature on ICTs and Poverty Alleviation to identify the success and failure factors advocated, Identify generic tools used and how effective they were also worthy of examination and lastly, the contribution of the piece of literature to the growing body of knowledge and understanding.



Many authors have written works on the contribution of Information and Communication Technologies (ICTs) and the Millennium Development Goals (MDGs). Outstanding among them is the work of Ichiro Tambo (2005). In his work entitled “*The Contribution of ICTs to Achieving the Millennium Development Goals*”, he states that ICTs can contribute to achieving the MDGs by effectively contributing to the planning process. According to him, local, national, international planning and service delivery can best be carried out through the use of ICTs. He further states that ICTs can effectively improve the analysis and the availability of planning information. ICTs assure active participation by stakeholders in the planning process. ICTs according to his findings introduce transparency in management thereby obliging senior managers and politicians to take rational decisions and carry out pro-poor planning. This dissertation shares the opinion of Tambo(2005) because Cameroon Telecommunications is actively involved in the planning process in Cameroon. It serves as an advisory body to the Ministry of Posts and Telecommunications, which is charged with the drawing up of the Telecommunications Sectorial Policy. This contribution is already evident in Community Multi-Media Telecentre Project co-implemented with the ministry of Posts and Telecommunications and the International Telecommunications Union (ITU)

Tambo (2005) also examines the contributions of ICTs to efficiencies in service delivery. According to his study, the adoption of e-government by developing countries is an imperative. E-government involves reforms in the way that governments work, share information and deliver service to external and internal clients for the benefit of government and the citizens and businesses that it serves. According to him, ICTs may play a critical role in improving the knowledge of practitioners and providing information for different tiers of management. ICTs may also play a critical role in enabling poor people to know what they should be receiving from government, and to challenge when delivery is not effective. Tambo (2005)’s idea on service delivery is closely in line with one of the objectives of this dissertation, which is the creation of an enabling environment for the implementation of an e-government in Cameroon

Tambo (2005) laments the fact that marginalized groups may face special constraints in accessing ICTs and using them for their specific needs but goes ahead to outline specific measures that can be incorporated into ICT policy in developing countries to facilitate gender equality.

One of his principal findings is that while the ICTs and other media are converging and providing many opportunities to strengthen local content creation and exchange, different “pools” of local content need to be treated very differently. Cameroon Telecommunications can create this synergy by actively participating in the community radio project and local programmes on TV designed with local content which is accessible to all.



He ends by raising a new issue for examination; the concept of “local content” that should be in existence prior to ICT implementation for the achievement of the Millennium Development Goals (MDGs). This study contributes enormously to the growing body of knowledge and understanding of ICTs by firmly establishing the relationship between MDGs and ICTs. My dissertation is also concerned with the problem of local content especially now that Cameroon Telecommunications has created an open forum for everyone to give suggestions on how to create and distribute open-source software which proves to be the vehicle of local content diffusion.

Elsevier (2004). in his work ***“Regional Human Development Report. Promoting ICT for Human Development in Asia 2004. Realizing the Millennium Development Goals”*** carries out a comparative study of 9 Asian countries. In it, he explores the role and significance of ICT for human development in Asia, in the framework of MDGs. He starts by evaluating the progress made by these countries towards achieving the MDGs, and discusses the potential and promise of ICT for human development. He tries to show how ICTs can break barriers to human knowledge, participation and economic opportunities. He addresses the empirical linkages between ICTs and MDGs for human development. He undertakes a systematic exploration of the application of ICTs with respect to each of the MDGs. His work also draws lessons from multi-country experiences for identifying policy directions. This dissertation, like Elsevier (2004) believes there is a close link between the MDGs and ICTs. It also believes that ICTs can lead to development.

The key findings of this work reveal that there is a close correlation between the Human Development Index (HDI) and the Technology Achievement Index (TAI). According to this work, human development measures across the range of critical indicators reveal significant disparities across the nine Asian countries, and that one of the weak aspects of human development in Asia remains the wide gender gaps.

One of the lessons learnt is that while many nations have demonstrated progress in achieving the MDGs, developing countries are at different stages for different goals.

He also thinks that while Asia and the Pacific has made progress in its attempt to halve income poverty and is well on track towards the goals of reducing hunger, it will still be able to meet the MDG targets by the year 2015.

Like Tambo (2005) Elsevier (2004) believes that ICTs contributes to the overall economic growth of a nation or even the global economy. According to him the long-term impact of ICT lies in its ability to directly expand human choices through increased access to information and knowledge. Like Tambo (2005) he states that ICT breaks barriers to human development (knowledge, participation, economic opportunity). Cameroon Telecommunications is really the vehicle that can carry this



information and knowledge to the rural communities of Cameroon where the poor live. This dissertation therefore shares the views of Elsevier (2004).

Another lesson learnt from Elsevier's work concerns harnessing ICTs for realizing MDGs. According to him, ICT can contribute to the eradication of poverty through increasing employment and other economic opportunities for the poor, increasing access to credits for the poor, advancing agricultural development, improving community decision-making, facilitating poverty mapping, facilitating on hunger and food security and improving government services for the poor. Cameroon Telecommunications has the ability to do all the aforementioned activities and this dissertation is therefore of the opinion that ICTs can contribute to poverty alleviation.

Elsevier (2004) advocates that ICT can help achieve universal primary education through reducing physical and social barriers to education, promoting efficiency in education and improving the quality of teaching and learning. In the same light, this dissertation shares the view that through Internet penetration, knowledge from other communities can be diffused in the rural communities, which are desperately in need of it for development.

ICT according to Elsevier (2004) can promote gender equality and the empowerment of women by improving women's opportunities in receiving education and training, enhancing the capacity of women's advocacy, creating job opportunities for women, facilitating women's social and political participation.

Elsevier (2004) also thinks that ICT can help reduce child mortality, improve maternal health, combat HIV/AIDS and other diseases through telemedicine and improve the provision of education and training on infant child healthcare, increasing hospital administration, managing patient health information, improving public health education and awareness.

This work also stresses that ICT can improve environmental sustainability through geographic information system and remote sensing. It can effectively do this by developing, updating, tracking environmental database, improving emergency communications, managing municipal solid waste and pollution and lastly improving public awareness.

On global partnership for development Elsevier (2004) thinks ICT can promote it by improving governance, facilitating international collaboration and exchange and facilitating international trade.

Elsevier (2004) however, warns that the degree to which ICT can influence the achievement of MDGs is conditioned by; the inherent nature of a particular goal combined with the materiality of information and communication in achieving it and three critical enabling factors – technology, access-related and human.



This piece of work contributes to the growing body of knowledge and understanding in this domain by outlining the potential and challenges of using ICTs to achieve human development goals.

Richard Gerster and Sonja Zimmerman 2005 published a study entitled “*Up-scaling pro-poor ICT policies and practices. A Review of Experience with Emphasis on low income countries in Asia and Africa*”.

R. Gerster and S. Zimmerman (2005) in their work intended to strengthen a multi-dimensional poverty reduction agenda for the implementation of the WSIS principles and action plan, which is closely linked to the achievement of the MDGs. In this work, they assert that poverty is not just a lack of income. According to them, the multi-dimensional concept of poverty also refers to disadvantages in access to land, credit and services, vulnerability, powerlessness and social exclusion. Cameroon Telecommunications represented the Cameroonian government at WSIS and therefore has as duty to participate in the implementation of the WSIS action plan.

The work addresses the topic of how to mainstream ICTs (regulatory and policy environment, sector, facilitator) in national poverty reduction strategies. The work also addresses the issue of what pro-poverty ICT regulations and policies (including free/open source software) are required for up-scaling ICT for poverty reduction. The question of how to enhance income generation by the poor through ICT is also addressed.

The key findings in this work are centered on mainstreaming ICT in national poverty Reduction Strategies (PRS). According to this study, many countries have begun to develop and implement national ICT or e-strategies, but few of them have effectively mainstreamed ICT into poverty reduction strategies.

They state that there are a number of options for moving the direction of targeted pro-poor policies like freedom of expression, building up an independent regulator, competition in ICT infrastructure provision, application of cost-effective and locally adaptable tools such as free/open source software, pro-poor license obligations for service providers and operators, making rural telephony profitable by supportive policies, creating space for local initiatives and policies and finally enabling community radio. This dissertation is in line with Gerster and Zimmerman (2005) as it studies Cameroon Telecommunication’s ability to effectively chart the way forward on open-source software design and distribution.

Gerster and Zimmerman (2005) have the same findings like Elsevier (2004) when they state that e-government can give the people a stronger voice. They believe that e-government harnesses ICTs for the government’s work processes, information sharing and service delivery. According to Gerster and Zimmerman (2005), the deconcentration and decentralization of the public sector can be greatly facilitated by the use of ICTs. ICTs can contribute to the empowerment of individual citizens as



well as at the community level. This dissertation is out to find out how Cameroon Telecommunications can pilot an e-government initiative in Cameroon.

This study also shows that the long term goal of the community multimedia centers (CMCs) approach is to enable communities to collect, produce, exchange and disseminate relevant information. Appropriating modern technologies has impacts on the social status of individuals in their families and communities. The study believes that ICTs are an effective means to increase the voices of the poor in (global) policy debates. Cameroon Telecommunications is already engaged in the Telecentre project in Cameroon.

Gerster and Zimmerman (2005) state like Tambo (2005) and Elsevier (2004) that ICTs can promote opportunities for livelihood by enhancing income generation. They also share the belief that the benefits of ICTs in the context of production and employment opportunities are not limited to the formal sector but can be extended to benefit poor people whose livelihoods largely depends on the informal sector.

Gerster and Zimmerman (2005) proposes that to up scale education, ICTs can be taught as a subject in higher education to provide the necessary skills needed for formal employment. ICTs can also be used to improve teaching across subjects. An education system may aim at creating a knowledge society and perceive ICTs as a tool for lifelong learning.

Gerster and Zimmerman (2005) end their study by raising the issue of up-scaling ICT grass-roots initiative as worthy for further examination. The work of Gerster and Zimmerman (2005) contributes to the growing body of knowledge and understanding by bringing out the basic requirements for successful up scaling of poverty reduction through ICTs. According to this study, these basic requirements are: an enabling ICT policy environment, mainstreaming ICTs in national PRS and related development strategies, astute choice of appropriate technology and mobilization of additional public and private resources.

The study also identifies some approaches as opportunities for up-scaling ICTs in education. According to the study, the use of ICTs in education requires an appropriate prioritizing of investment and current expenditure. Community telecentres can play an important role in non-formal education. Girls' education must be a priority in developing programmes and choosing the use of ICTs. This dissertation does not bring out the issue of gender in poverty for now. It prefers to look at poverty in a wholesome manner.

Most of the (urban) policy makers lack knowledge about the local context of the rural and urban poor. This knowledge is very vital for the use of ICTs for MDGs and as such decision makers must fetch it to be successful.

The choice of an appropriate ICT is directly relevant for poverty reduction. It is necessary to mainstream ICTs in all forms of programme assistance (sector-wide



approaches and PRS-based budget support). ICTs can be used in disaster prevention and relief.

Don Slater and Jo Tacchi (2004) carried out a research entitled “*ICT Innovations for Poverty Reduction*”. They started by affirming that poverty pushes people to live a hand to mouth existence in which meeting basic needs on a daily basis excludes people from other activities and aspirations. They examine the dimensions of poverty to include material deprivation, insecurity, illiteracy and lack of education, lack of capital to fund ventures, inability to develop one’s talents, potential and aspirations and lack of freedom and oppressive social structures.

Don Slater and Jo Tacchi(2004) also addresses the topic of how participants understand and interact with the media they encounter through the ICT initiatives. They also examine how poverty is experienced and managed by target groups. Their work is also concerned with how ICT initiatives can connect participants to wider social circles and create/recognize local social network. This connection idea of Don Slater and Jo Tacchi (2004) is the same idea of this dissertation, which tries to show how Cameroon Telecommunications can connect the Cameroonian poor to wider social circles, and enable them to benefit from the fruits of this connection.

There are some key findings in work of Don Slater and Jo Tacchi (2004). One outstanding finding is that content creation itself is a powerful means of engaging people with media technologies and developing ICT skills. They also discovered that initiatives employing new ICTs can build upon existing community media and multimedia models which have long traditions of community content development and participatory training and production.

Like other writers in this domain, Don Slater and Jo Tacchi (2004) believe that poverty is a complex condition that involves issues of voice, empowerment, rights, opportunities and material deprivation. They further believe that ICTs already play a crucial symbolic role in people’s aspirations and their idea of what skills should be necessary for the future.

Don Slater and Jo Tacchi (2004) also proposes that embedding ICT initiatives in communities cannot be a matter of finding fool-proof organizational models that integrate partners, projects and community organizations but rather of organizational responses and resources that can work within a number of processes that link projects and communities.

Concerning the contribution of this work to the growing body of knowledge and understanding, Don Slater and Jo Tacchi (2004) addresses the circumstances under which ICTs can reduce poverty. According to them “**if ICTs are the answer, what is the question?**”

In 2003, Stuart Marthison, under the auspices of the global knowledge partnership published a case study entitled “*Digital Dividends for the Poor. ICT for Poverty*”



Reduction in Asia". The key findings in this study poverty in Asia and applications of ICT for poverty reduction.

In this study, Stuart Marthison (2003) states that development and poverty reduction are not synonymous. According to him, it is possible for a country to develop even while the poverty situation remains static. He also maintains that poverty is a resilient phenomenon that will not be overcome easily. In spite of some evidence that poverty is being reduced, it is not being reduced quickly enough for the million of people that are burdened by it. Stuart (2003) thinks that the greatest threat to poverty reduction in Asia is the possibility of an HIV/AIDS crisis. Analysis of the data that is available suggests that progress towards the achievement of MDGs is generally behind schedule and, in many cases, far behind schedule.

Concerning the applications of ICT for poverty reduction, Stuart (2003) believes that to be valuable, information needs to be relevant, timely and in the possession of people who are able to make use of it. One of his findings was that barriers to Internet access include lack of ICT infrastructure, restrictive government policy and regulation, high cost, low IT literacy and irrelevant content. An important area of innovation in ICT for poverty reduction according to Stuart (2003) is to exploit the particular strength of different ICTs by combining them to deliver a more complete communication package. He thinks that impact evaluation is important for all poverty reduction initiatives. However, evaluating the impact of ICT-based initiatives is problematic because most initiatives utilize ICTs as tools in a broader poverty reduction strategy rather than as a 'solution' in themselves. This dissertation is of the opinion that ICTs can be used both as a tool and a solution. Cameroon Telecommunications can be used as a tool to convey information and knowledge to the poor communities and serve as a solution at the same time when it creates income generation activities like public phone booths, cyber cafés, and public calling points that are contracted out to individuals for income generation.

The issues raised by Stuart (2003) for further examination relates to the fact that further experimentation and innovation is needed to improve effectiveness of poverty reduction efforts. This according to him should include pilot programmes, evaluation and dissemination of research findings.

This study contributes to the growing body of knowledge and understanding in this domain by defining best practices for targeting the needs of the poorest. This can be done through the identification of the most pressing needs in the target community and work to address one or more of these needs. Another way is to specialize in meeting a particular need and work with specific groups who need this service the most.

According to Stuart (2003), for initiatives to reach the masses, initiatives should be readily expandable and/or replicable. Investment should be targeted to designing and testing an effective working model that can be used to reach many



more people at low marginal cost. Stuart (2003) also thinks that pilot initiatives need to demonstrate both impact and competitive advantage to justify efforts towards expansion/replication, and demonstrate absence of negative social impact. To Stuart, addressing the issue that poverty is resilient; initiatives need to be organizationally and financially sustainable. This dissertation studies the sustainability of the community multimedia telecentre project, which is currently under implementation.

Stuart (2003) propose that in order to have a cooperative approach from stakeholders in all sectors to combat poverty, communities or countries must develop working partnerships between stakeholders from government, civil society, private sector, academia and networks. Lastly, Stuart (2003) believes that community development can best be achieved through community engagement, through participatory approaches to ICT needs analysis, content development, strategic planning and evaluation. This should include gender analysis and lay more emphasis on the role of community based organizations. Communities should also implement strategies and content development strategies that take into account cultural and social preferences in communication and learning. This dissertation studies the role local councils can play in harnessing local capacities for local content creation and active participation in project design and implementation.

Roger Harris (2004) published an e-primer titled ***“Information and Communication Technologies for Poverty Reduction”*** in which he tries to show how ICTs have contributed to poverty alleviation. He brings out the lessons learned from examples of applying ICTs to poverty reduction and proposes a general framework for poverty alleviation with ICTs.

The key findings in this study are relating to the concepts that the digital divide is severe, not only between developed and developing countries but also within developing countries. The digital divide according to Roger Harris (2004) goes beyond access to the technology and can be expressed in terms of multiple dimensions. According to him, there is evidence that ICTs are capable of alleviating poverty. He believes that the application of ICTs to development should always begin with a development strategy.

Harris (2004) enumerates a number of successful strategies of ICTs application to alleviate poverty. These include: provision of local language and locally relevant content, targeting disadvantaged and marginalized groups, promoting local entrepreneurship, improving poor people’s health (by provision of health care information, remote consultation, diagnostic, treatment), strengthening education, promoting trade and e-commerce, supporting good governance, building capacity and capability, enriching culture, supporting agriculture, creating employment opportunities, reinforcing social mobilization and creating an adequate framework for poverty alleviation with ICTs.



The lessons that can be learned from Harris (2004) study include the fact that ICTs alone are insufficient for significant benefits to emerge. According to this study, ICTs will not transform bad development into good development, but they can make good development better. The study also states that effective applications of ICTs comprise both a technological infrastructure and information infrastructure. In rural settings in developing countries, it is always a challenge to install the technological infrastructure but the task is relatively simple compared to establishing the information infrastructure. Harris (2004) also states that participatory forms of analysis in which community aspirations and development activities are molded and tracked in a cyclic manner are more likely to achieve desirable results. Like Stuart Marthison (2003), Harris (2004) believes that the sustainability of ICTs has emerged as a key issue in the debate surrounding their use in development. In addition to sustaining financial viability, there is also the need for sustaining staff capability acceptance and service delivery.

Harris (2004) contributes to the growing body of knowledge and understanding in this domain by clearly proposing a framework describing the process of applying ICTs to alleviating poverty. He uses info-mobilisation, a methodology which is concerned with eliciting the information requirements of communities, and promoting local development that is based on improved information supplies. This is one way of achieving the social appropriation of ICTs. This dissertation also intends to propose a methodology that can be used in disseminating knowledge through ICTs in the rural areas of Cameroon that are mostly inhabited by the poor who need development most.

Phil Walker, Kerry McNamara and Lindsay Wallace (2002) published a study titled “*The Significance of Information and Communication Technologies for Reducing Poverty*” in which they tried to show how developing country governments can create information-rich environments and make ICTs effective tools for combating poverty and empowering the poor.

The key findings in this study revealed that the poor lack access to information, knowledge, education, institutions, political visibility and voice. The study also brings out the notion that there is a strong correlation between access to education and knowledge, infant mortality, family size, and women’s health. According to the study, structural impediments to economic growth, and the highly unequal nature of growth in developing countries, perpetuate poverty and inequality. They believe that the poor have information, knowledge and communication needs as do all people, yet they are often unable to address them.

Walker et al (2002) thinks that ICTs have an important role to play in reducing poverty by improving flows of information and communications. According to them, ICTs are a valuable tool for information sharing and awareness rising within the wider development community, to combat poverty and advance the International Development Targets. They feel that the poor may face special constraints in



accessing ICTs and using them for their specific needs. Like Roger Harris (2004) and Stuart Mathison (2003), Walker et al (2002) are of the opinion that it is important to assure that relevant information is available to the poor in their own languages. According to them, there are barriers to adaptation and innovation of applications of ICTs and content such as broadcast programmes (eg. Government monopoly of radio broadcasting, linguistic problems). This dissertation studies the ways of removing the barriers that hinder the rapid deployment and use of ICTs for knowledge and information transfer to the rural communities of Cameroon.

The study concludes by identifying that creating information rich societies is a key element of poverty reduction and sustainable development. Walker et al (2002) also believes that no single technology is a magic bullet and that the enabling environment is crucial in using ICTs for poverty alleviation. Giving voice to the poor and helping them apply their knowledge is key. Lastly the study asserts that addressing the needs of the poor and most marginalized particularly women and girls are vital.

The International Telecommunications Union ITU (2003) in its World Telecommunication Development Report 2003 published an article titled “*ICT and the Millennium Development Goals*” in which it addressed the issue of indicators to measure ICT availability and also measuring the impact of ICTs on MDGs.

The key findings in this paper are that ICTs are recognized as playing an important role in achieving MDGs. The lesson learnt here is that there are several indicators for monitoring and ICTs are indispensable for providing the databases and web-based information for tracking the MDGs. According to this report, the MDG indicators for ICT availability show a large increase while many of the indicators proposed for monitoring progress towards the information society are more than half achieved. There are however, growing bottlenecks in terms of actual usage due to knowledge and affordability.

The ITU (2003) discovered that it is difficult to quantify the impact of ICTs and to separate their influence from those of other factors, such as governance or economic growth. To be useful, such data needs to be collected over a period of time for an accurate and comparable measure of impact. While the net effect of ICTs is generally perceived as positive, they can also have negative impacts on health and the environment, and can aggravate existing disparities.

Randall Spence (2003) published “*Information and Communication Technologies (ICTs) for Poverty Reduction: when, where and how?*” In which he addresses the issue of how ICT/Internet expansion impacts on development and poverty reduction. The study dwells on country cases, development and poverty reduction experiences of OECD, rapidly changing and other developing countries.



The subject matter of the study is centred on ICT development and poverty reduction experiences of less advanced developing countries.

The key findings of Randall Spence (2003) are based on how ICT/Internet expansion impacts on Development and poverty reduction in economic perspectives, this expansion reduces transaction costs, makes time and distance not to matter in exchange, enables participation in markets or activities globally. According to Randall Spence (2003) ICTs embody a lot of knowledge. Like Randall (2003), this dissertation studies the applicability of ICTs to micro-finance in Cameroon especially in the rural areas where there are no established banks. It also studies the role ICTs play in money transfer, which today is greatly lifting many out of poverty in Cameroon. The dissertation aims to recommend the best way using ICTs to introduce e-commerce, e-business, and e-banking in the rural areas whereby transactions had hitherto been very difficult due to lack of a medium of exchange.

Randall Spence (2003) states that ICTs can be used to instigate and support livelihood development. ICTs are important in public sector, social services and poverty reduction management (strategies, programmes and intervention).

According to this study, observations from ICT development and poverty reduction experiences of less advanced developing countries show that diffusion of ICTs directly to (poorer) communities has been happening intensively for about a decade now. In addition, and particularly in the past five years, ICTs have been applied to systemic improvement important to poverty reduction.

Randall Spence (2003) thinks that pro-poor access and effective usage includes e-commerce and market information services, education, gender empowerment, social and political empowerment and combinations of these in multi-purpose community access investments.

Anthony G. Wilhelm (2004) in his book *“Digital Nation: towards an Inclusive Information Society”* states that at the dawn of the information age, technological literacy and access are no longer optional but essential. According to him, as more routine tasks such as applying for jobs, obtaining general information, banking and shopping move into cyberspace, those without access are finding themselves marginalized, on the outside looking in. Wilhelm (2004) states that an information-driven society, a nation’s success depends on the ability of its citizens to navigate information technology proficiently. Wilhelm (2004) highlights that schools are not adequately training teachers and are not adjusting the curriculum to meet the growing demands of advancing technologies and government officials have taken a sluggish approach to equipping citizens with skills and information needed to access Internet-based government services.

To him, the immense potential of information and communication technologies to improve health and healthcare, commerce, education, women’s empowerment, agriculture etc is very significant.



The UN ICT Taskforce published a book in 2005 titled “*Open Access for Africa: Challenges, Recommendations and Examples*” edited by Samuel Danofsky in which the main purpose was to raise awareness amongst stakeholders in the development field of the opportunities and possibilities that exist in bringing access and connectivity to the African continent.

According to the UN ICT Taskforce (2005) connectivity is in short supply in many developing countries and especially in Africa. Optical fibre is not available in many African countries, satellite links are limited and expensive, internal telecommunications infrastructures are typically concentrated in a few main cities and present severe shortcomings in the rural areas.

The book examines the different aspects of how to provide increase availability of ICT infrastructure and services for Africa, including identifying the appropriate actors, the relevant technologies and suggestions for how to appropriately reform regulatory frameworks as well as how to promote African entrepreneurship in the field of ICT infrastructure and services.

According to the UN ICT Taskforce (2005), ICT can certainly not replace other development activities, but has the great potential to make development more efficient and sustainable. According to the book, ICT is a growing market. Indeed, the spectacular growth of cell phones in Africa, where the penetration rate is now 10 %, indicates a strong demand for ICT services.

Lastly, UN ICT Taskforce (2005) advocates that the four steps that can be used to leapfrog the digital divide starts from awareness, which enables people to know what can be done with ICT, and open up to using them. The next step concerns availability whereby ICT must be offered within reasonable proximity with appropriate hardware and software. Accessibility is another step, which relates to the ability to use ICT (spanning literacy, e-literacy, language, interfaces etc). Lastly, the affordability step which stresses that all ICT usage together should, ideally, be only a few percent of one’s income.

Olivier Nana Nzepa (2005) carried out a research entitled “*Building the future: Civil Society’s Contribution towards the Emergence of an information Society in Cameroon*”. In this study, he tries to depict the partnership being built between the Cameroonian government, its private sector and Civil Society partners to manage the development of the ICT sector which has, through its own dynamic, almost broken away from state control.

The main findings here are centered around the particular context of the emergence of the information society in Cameroon and the inadequacy of infrastructural, institutional and regulatory frameworks. The study dwells on the specific role, which can be played by civil society in formulating strategies and policies, and proposes ways to strengthen the synergy between the different players remove the various obstacles to the creation of a favourable environment and strengthen civil society’s capacity for mobilization and participation



Nzepa (2005) also outlines the challenges faced by civil society in contributing to decision-making in Cameroon. These challenges include; technical challenges whereby in the majority of cases telecommunications networks do not serve rural areas. Even in areas where the networks are available, they are confronted with inadequate capacity, or obsolete systems that are hardly conducive to the development of services like the Internet, data transmission etc.

According to Nzepa (2005), the civil society also faces institutional challenges whereby more than eight governmental players are claiming authorship or supervision of the national ICT policy. The result is power struggle and the civil society finds itself tossed on the waves of a challenge over which it has no control. Also, this rapidly developing sector is seriously handicapped by the uncertainty, which surrounds its deployment on the ground, because of the ineffectiveness laws relating to its status.

Human challenges are also enormous as stated by Nzepa (2005). Not only does the lack of sufficient human resources in terms of quantity and quality remain a difficult problem, but also national ICT related skills are sadly lacking. This state of affairs is aggravated by the absence of a national ICT training policy, prohibitive access costs, unsuitable training structures and programmes, lack of information on the needs of the labour market and lack of awareness of ICT challenges.

Nzepa (2005) identifies financial challenges like funding insecurity, which is a drawback that discourages many people in the long run. According to him, managerial incompetence in a large number of civil society initiatives in Cameroon has made donor agencies nervous to finance their activities.

Nzepa (2005) concludes his study by proposing the way forward for the civil society interested in ICT appropriation in Cameroon. To him, lobbying techniques and public relation methods should be acquired by civil society in Cameroon. Good relationships should be established with the media. In order to succeed, the Cameroon ICT civil society should make sure they affiliate to international networks, which have the ability of providing double assurance of complementarity in terms of expertise and appreciable information relay in case of breakdowns.

SUMMARY OF MAIN FINDINGS FROM LITERATURE REVIEW

On the overall, the following observations emerged from the analysis of the various works reviewed.



The first observation is that the studies are reporting processed knowledge or to put it clearly are in many instances making reference to the same cases. This indicates that there is a demand-supply imbalance with an associated opportunity for practitioners to make their experiences more widely known.

There is generally little informed discussion on what ICTs actually are; how they are evolving and converging, where they might be going and what implications there are for their further use in poverty alleviation. Most of the analyses imply computers, the Internet and telephone without differentiation between them in terms of their potential impact within poverty alleviation programmes. Television is hardly mentioned and the radio receives passing reference, despite the tremendous strides being made in these technologies and the impressive (but admittedly rare) applications in poverty alleviation.

It should be noted that there is plenty of discussion on what constitute poverty; with various dimensions and definitions, but there is little analysis relating these individually to the capacity of different ICTs.

Also, a wide range of pre-conditions is claimed throughout to be necessary in order to make ICTs effective as anti-poverty tools. Moreover, there is little analysis or practical explanation of how to create these conditions or even of the likelihood that they are achievable in any particular circumstance.

It is also noted that there is very little solid evidence in the works to convince a skeptic that ICTs are alleviating poverty in more than a handful of the works reviewed. Overall, there is more promise than reality; a greater emphasis on what can be done than on what is actually working right now.

Whilst there is a good deal of description on what could be done with ICTs to alleviate poverty, there is little to help the observer understand what is being done and what is not being done.

On reviewing this literature, one would come away with the conclusion that greater in-depth analysis on the fundamental context of unique socio-economic relations and environment that impedes the adoption of ICTs for poverty alleviation in different communities has yet to be fully explored. A blanket approach of reductionism void of the appropriate socio-economic context continues to plague many researchers as they write on the ICTs and poverty alleviation.

CHAPTER THREE.



PRESENTATION AND INTERPRETATION OF RESEARCH FINDINGS

1.0 INTRODUCTION.

In many countries in Africa, the recent uptake of ICTs has exceeded all predictions, proving that there is an unexpected high demand for ICT services in Africa. The premise of this research addresses the issue concerning Cameroon Telecommunication's ability to provide ICT services along other operators and stakeholders in an attempt to alleviate poverty in Cameroon. This study is also aimed at finding out how the provision of an information society for the rural communities of the Far North and North West Provinces can enable its inhabitants to seize the enormous opportunities that can lift them out of poverty.

The research methodology has taken an eclectic approach, which uses a combination of quantitative and qualitative analysis in management research. It uses multiple sources of information to derive evidence that leads to conclusions. Data has been gathered using a questionnaire and interviews. The questionnaire was administered by the researcher through a number of organisations like high schools, municipal councils, women groups and business associations. The survey has gathered data on a range of ICTs including; landline telephony, GSM and CDMA mobile telephony, the Internet, the Radio, the Television, and Community Telecentres.

This study presents information on the use of the various ICTs in the rural poor communities of the Far North and North West Provinces of Cameroon and the impact of this use on poverty alleviation in these areas.

2.0 THE QUESTIONNAIRE.

The questionnaire for the survey was designed to meet two fundamental objectives;

- To gather information on patterns of use of ICT services amongst target groups, which included students, municipal councillors, women, and businessmen living in these two provinces of Cameroon.
- To identify drivers and barriers influencing ICT use in these communities.

The first part of the questionnaire is made up of descriptors like age, gender, occupation etc. the second part includes a large number of market variables, the data for which can be used to describe existing patterns of ICT use e.g frequency of use, affordability of cost, knowledge about ICTs, benefits derived from use etc. An important aspect of this survey is questions relating to how users access ICTs e.g through Teleshops, call boxes, Community Telecentres, individual homes etc

The third part explores respondents' attitudes and intentions regarding a range of issues identified as potentially influential on the people's use of ICTs. These issues are very much community specific, arising from discussion with users; although there



was no intention to create any consistency across the communities, it is however, interesting that there is quite a degree of similarity of issues.

3.0 THE SAMPLE.

Due to the different context in each community, different sampling strategies were adopted, although the resulting total sample sizes were similar.

	Schools	Councils	Women Groups	Total
Far North Province	16	12	11	39
North West Province	19	10	13	42

The reason for this was that, in contrast to the North West Province, the Far North Province appeared to have no effective Internet infrastructures and Community Telecentres outside of the main city and capital Maroua, so a separate survey instrument was designed for use in Maroua in order to gather data on Internet use and access to Community Telecentres. However, even with this approach, the research has found low levels of Internet use in all the communities. The data analysed according to the descriptors used, enabled some interesting comparisons to be made across different types of respondents.

In the Far North Province, a majority of calls are made to urban centres in the Southern part of Cameroon unlike the North West Province where the bulk of traffic goes international. It can be deduced from this observation that many families in the North West Province have relatives living abroad than do those in the Far North Province. By this logic, it means that the inhabitants of the North West Province have a high propensity to alleviate poverty from cash coming into the country in response to the calls made than their counterparts in the Far North Province. The spread of Internet across the North West Province though expensive according to local standards is also a right step towards poverty alleviation as the population of this community are able to get more timely information from the Internet than those living in the Far North Province.

3.1 GENDER.

Find below is the gender balance of the respondents.



	Far North Province	North West Province	Overall
Male	71 %	54 %	63 %
Female	29 %	46 %	37 %

A surprising finding is that there is a big difference between the men and women of the Far North Province- either in the use of ICTs or in attitudes towards ICT services. This can be attributed to the domineering nature of men in this community as compared to their counterparts in the North West Province. Up to 71 % of the respondents in the Far North Province were men against 29 % women. This finding is also attributed to the insecurity women in these parts of Cameroon face in the presence of strangers. Religion also has a significant role to play here because Islam, which is widely practised in this province does not authorise women to interact with male strangers hence the reluctance to fill the questionnaires or answer interview questions. The only way through which this vulnerable group can have access to ICTs is through the “operation 500.000 IT literate women in Cameroon” project being run by ASAFE, a non-governmental organisation advocating for women empowerment in Cameroon and the African Computer Institute (IAI). If the women from the Far North Province succeed in participating in this project, they will have the same opportunities like men thereby affirming the assertion that new technology increases socio-economic and income equalities.

In the North West Province on the contrary, there is little difference between men and women. 54 % of the respondents in this province were men against 46 % women. This portrays the liberated nature of the North West woman. The only barrier the women in this province have is illiteracy. Since many ICTs require a certain level of education, most women in this province access and use ICTs through intermediaries like Tele shop owners, call box operators and Community Telecentre staff. In this province, there is no big difference between men and women concerning the use of telephone.

Correlations however show that business or livelihood related issues are important in determining men’s use of ICTs in the two communities. The men in these communities hold the view that ICTs especially the telephone will improve business and enable them to keep in touch with business contacts. This view is fundamental in underpinning the logic of using ICTs for poverty alleviation. Cost savings from other means of communication are also important to men indicating that they have a high priority for communication needs, although these may be related to business, political issues, funerals etc.

The only issue that seems to have a strong influence on women’s use of ICTs in these communities is safety of travel. Many women fear travelling and therefore prefer using ICTs to get in contact with their relatives and friends in far off places. Also, the roads are not very good and transport fares are high. Many women cannot afford the high fares but can afford to make a call or send an SMS to the person she wanted to meet.



3.2 AGE.

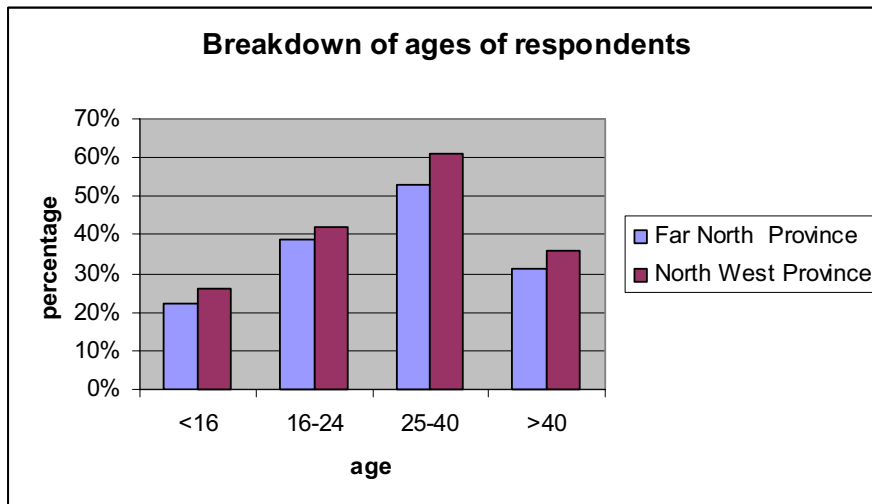


Fig. 3 Breakdown of ages of respondents.

A comparison made of data from different age groups show that there is little difference in either ICT access and use or attitudes towards them, between the younger groups. This can be explained by the fact that the younger groups 16-24 and 25-40 are more literate especially the 25-40 group, which is playing many leadership roles in these communities.

Comparing data between the younger and older groups shows that older people perceive security issues as more important and that it is evident in their attitudes towards ICT use. Older people in these communities believe that ICTs can improve security and riches as they provide them with knowledge on what goes on around. According to the (25-40) age group, ICTs presents the means to take opportunities and avoid danger. Similarly, it is this group that tends to be involved in business, so the value of ICTs in keeping in touch with business contacts and accessing vital information that provides business opportunities. A good ICT policy aimed at alleviating poverty in these communities can therefore use this group as the target group to design pro-poor policies for these communities.



3.3 EDUCATION.

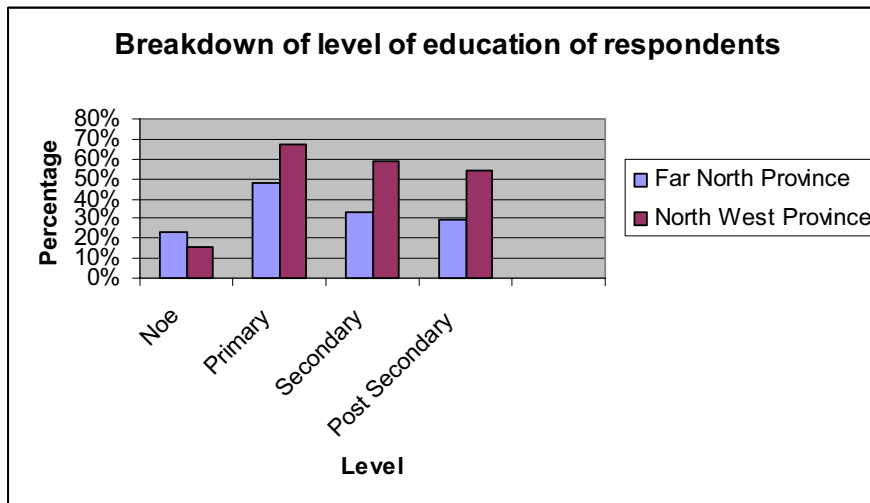


Fig 4 Breakdown of level of education of respondents.

It is not surprising to notice that the frequency of use of ICTs increases with the level of education. In the Far North Province, it is only those with no education that show no correlation between stated intention and actual use of ICTs indicating that there are barriers impeding the use of ICTs by people with no education thereby rendering poverty alleviation in this group more difficult. A belief that ICT possession and use are too expensive is strong amongst this group as cost prevents them from accessing and using ICTs. This is also the only group where lack of knowledge on ICT use appears to be a serious barrier to ICT penetration in these communities.

The fact that ICT use can increase money received from family members and friends in other places is an important factor driving ICT use across groups except those with no education indicating that this group tends to use ICTs mostly for other purposes. It should be noted that this group of uneducated persons would adopt ICTs if they had adequate information about the potentials of ICTs in poverty alleviation. This group seems to be ignorant of the fact that ICTs link people and bring business opportunities to them. A majority of members are peasant farmers producing groundnuts, onions, and garlic. These products are in high demand in the urban areas of southern Cameroon but the farmers only rely on middlemen who buy at cheap prices and sell at high prices in these towns making high profits. If the members of this group were able to use ICTs especially the mobile phone, they can bypass the middlemen and make much money out of their products.

3.4 SERVICE LEVEL.

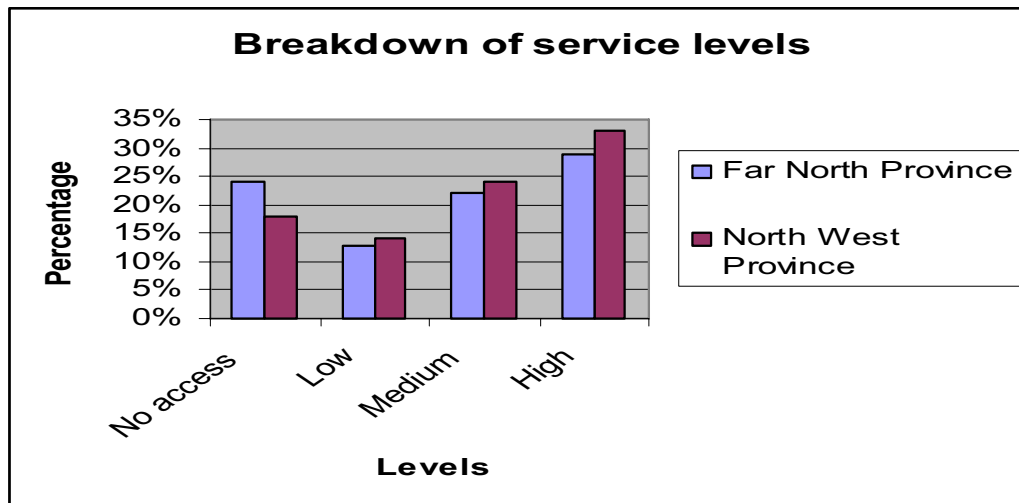


Fig 5 Breakdown of service levels

Four main service levels can be distinguished in the two communities. These levels include those with no access to ICTs at all, those with low access notably access to radio and mobile phone only, those with medium access using the radio, mobile phones, fixed phone and those with high access who use the radio, fixed and mobile phones, television, Internet and Community Telecentres. This distinction was difficult to discern in the North West Province due to the dominance of community radios and the heavy presence of mobile phones in rural areas.

From fig 3 above, it can be assumed that service levels corresponds roughly to urban/rural context as there is a link between service level and main occupation- most farmers are in no ICT access areas and most professional people are in the high ICT service areas. Poverty is high in low ICT access areas and low in high ICT access areas.

The belief that using an interactive ICT like the telephone will reduce the risk of misunderstanding is an important factor only in areas with low ICT access. As with older people, this may reflect the fact that literacy is a more significant issue with rural people who, therefore, perceive a strong benefit from expressing themselves verbally through interactive ICTs like the telephone.

Important factors influencing people’s intention to use interactive ICTs like the telephone and Internet are the ability to communicate with friends and relatives abroad, their potential to improve business and the contribution they can make to lift the people out of poverty. It is interesting to note that in the North West Province, these links are evident across all service levels with the exception of high service level areas. This may reflect the heterogeneous mix of people in urban society and the nature of poverty and security issues in these areas.

3.5 ICT AWARENESS.



An index of ICT awareness was derived on the basis of responses to questions regarding respondents' knowledge on a range of ICT services e.g telephone, radio, television, Internet and Community Telecentres.

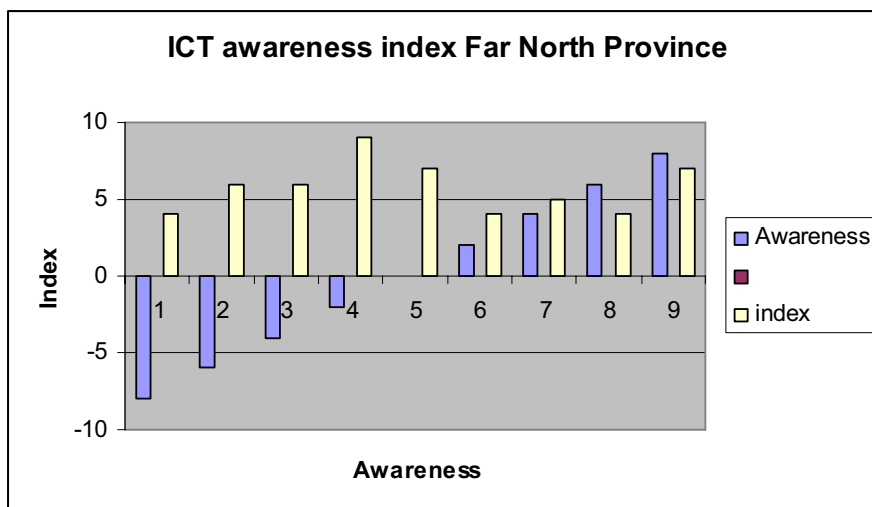


Fig 6 ICT Awareness index Far North Province

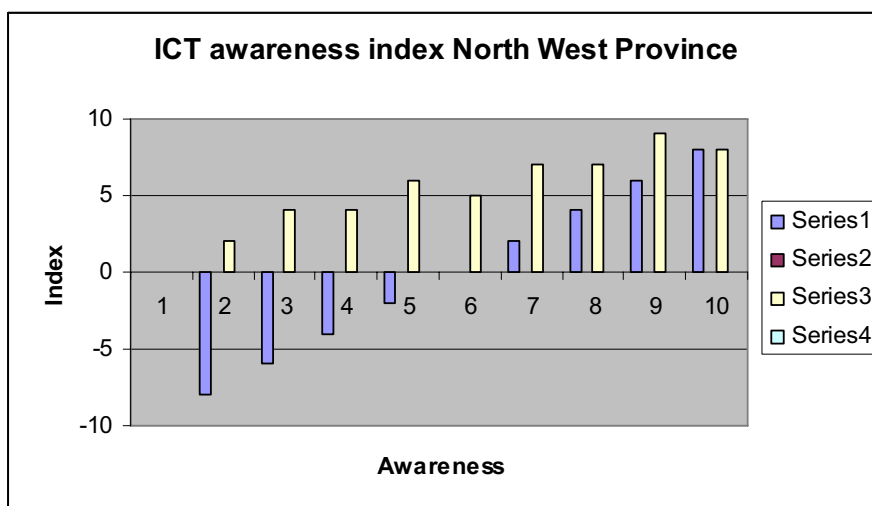


Fig 7 ICT Awareness index North West Province.

Figure four shows that there is a spread of awareness amongst respondents, although awareness in the North West Province appears to be higher. Particularly interesting is



the fact that very few people in the North West Province claim to have no knowledge of ICT services.

With regard to the use of ICT services, community telecentre staff, call box operators and teleshop owners play a very important role in assisting people to use telephones, browse the Internet, send and receive SMS etc. an estimate of customers needing assistance ranges from 30 % to 80 %. The highest assistance needed is on the use of the Internet. This awareness index gives a general impression many people in the Far North and North West Provinces of Cameroon are not familiar with ICT use. This is however, in contrast with the North West Province where people have the ability to learn quickly and needs only to be shown how to use a technology once.

3.6 Rate of ICT diffusion amongst different Socio-Economic groups.

The study reveals that the rate of ICT diffusion is unevenly distributed amongst the different socio-economic groups that constitute the communities under study. The leading group on ICT diffusion in these communities is the businessmen who make up 61 % of the diffusion rate. This can be attributed to the fact that they have the means to afford the cost of ICTs and need them to be in permanent contact with their counterparts in other localities.

The civil servants who account for 22% of the diffusion rate closely follow this group. It should be noted that the civil servant have the means to afford the cost and many of them are working away from their families and need to be in constant touch with what is happening back home.

The rate of diffusion amongst the women and farmers is almost the same. These two socio-economic groups share common characteristics like low incomes, illiteracy and the lack of acquaintances in distant places. Things have however started changing as the price of ICTs keep dropping.

3.7 The role of government or firms in providing access to ICTs in Cameroon.

The role of the government in Cameroon is concerned with the design and implementation of pro-poor ICT policies that have the capability of creating an enabling environment for the poor to access ICTs. This can be done through the Telecommunications Regulatory Board that can ensure fair competition and control high tariffs, which inhibits the poor from accessing ICTs.

The companies operating in the ICT sector in Cameroon though being profit oriented, should design and implement social programmes that are aimed at making ICTs accessible to the poor. Such programmes can include pro-poor packages and reduced preferential tariffs in rural areas.

4. EXPECTATIONS OF THE RESPONDENTS.



It should be noted that the respondents to this questionnaire had a lot of preoccupations and expectations from ICTs. All of them expressed the hope that ICTs will improve their lives in one way or the other. Find below are some of the main expectations from the respondents.

The first expectation is that about 76 % of the respondents expected that ICT deployment in their communities will lead to direct and indirect job creation. According to them, if ICTs are massively deployed in their communities, local businessmen will be encouraged to invest in the ICT sector thereby creating job opportunities for the young unemployed in these communities who have IT skills. These respondents also believe that a good ICT environment will encourage other sectors like microfinance and banking to move to these communities. In the North West Province, 54 % of the respondents believe that if banking and microfinance come into their communities, they will have access to credits and loans which are vital for business start-up and poverty alleviation.

57 % of the respondents in the two provinces also think that ICTs can increase income for village telecommunications operators. The money got from this increase income will be shared to the villagers through purchases thereby creating a multiplier effect, which can adequately lead to poverty alleviation. Already, mobile telephony is producing this effect through village call box operators and prepaid voucher vendors.

About 81 % of the respondents are of the opinion that ICTs will increase marketing opportunities for individual producers of agricultural products and small-scale businessmen in areas like farming and fishing. According to these respondents, ample marketing information can be got from watching television, listening to the radio etc. This information obtained through ICTs, can enable local producers and businessmen to create and maintain contacts through the telephone for the marketing of products. These respondents therefore believe that ICTs are very favourable for agricultural production and small business ventures.

53 % of the respondents also think that the presence of ICTs will guarantee access to information relevant to livelihoods. They hold the opinion that, ICTs can enable them to get more information on health issues like epidemics and natural disasters like floods, eruptions etc thereby enabling them to take appropriate measures against the negative effects of these life threatening forces. The availability of ICTs will enable members of these communities to put in place an early warning system for any eventuality. They also believe that ICTs can give them access to information on ways to improve or boost agricultural production and alleviate poverty.

Increase access to education and training through ICTs is an expectation expressed by 42 % of the respondents. According to them, ICTs have the ability especially for the literate members of the communities to increase the level of education and training. These respondents believe that teachers in their communities can benefit a lot from access to ICTs like the Internet, which has vast quantities of knowledge, and information that they can tap and disseminate in the communities.

According to 51 % of the respondents, ICTs have the potential to increase social mobilisation in the two communities through community initiatives based on



the exchange of experiences like the establishment of a cooperative society through which funds can be mobilised and credits and loans granted to members at very low interest rates. These respondents believe that such initiatives can form the basis of a poverty alleviation programme.

The protection of local resources and the sustainable use of environmental resources can be greatly improved through the use of ICTs according to 48 % of the respondents. To them, ICTs can enable them to learn “best practices” in these sectors and also enable them to exchange knowledge and experiences with their counterparts in other communities in an attempt to improve on the existing resource management strategies.

This survey also reveals that 71 % of the female respondents expect ICTs to empower women through entrepreneurial activities. The majority of female respondents belonging to women’s groups expected ICTs to enable them to go into partnerships with other women from other groups living and operating in other parts of the country or beyond. Since women champion the marketing of agricultural products in Cameroon, ICTs can really empower them through enabling them to access vital information on business opportunities and keeping them in touch with their partners in other communities.

A non-governmental organisation known as ASAFE whose principal goal is to empower women in Cameroon through ICTs has partnered with the African Computer Institute (IAI) to implement a project known as “**Operation 500.000 IT literate women in Cameroon by 2015**”. This project teaches women in these rural areas basic IT skills alongside bookkeeping, accounting and management fundamentals. The International Telecommunications Union (ITU) is providing technical support for the project. Many women who have completed these courses are already operational and setting up small business in the IT domain like cyber cafés and documentation centres etc.

Lastly, 63 % of the respondents working in local councils expected the presence of ICTs in their communities to strengthen local statistical, analytical, monitoring and evaluation capacity. According to this group of respondents, ICTs have the ability to enable them build up and maintain a good data bank on births, deaths, marriages and local revenue collection etc. ICTs can also provide them with tools for analysing, monitoring and evaluating local community projects effectively.

5. CONCLUSIONS ON RESEARCH FINDINGS.

In conclusion, it is generally accepted that ICTs and access to information have a positive development impact, particularly with regard to business information and activities. This is also very true with poverty alleviation. This survey confirms the importance of Cameroon Telecommunications in particular and ICTs in general to economic activities and poverty alleviation in Cameroon. It however, also demonstrates the dominance of family matters as the reason for ICT use amongst the target communities and groups.



In the North West Province, an informal association of market women known as "buyam-sellam" women has sprung up and is using ICTs to market the locally produced crops like Irish potatoes, corn, beans, yams, and vegetables like carrots, beetroots, leeks to urban areas far away and even in other neighbouring countries like Gabon, Congo, Nigeria etc. what these women actually do is that they circulate mobile phone numbers to their contacts who keep informing them through SMS and calls on the availability of products or demand as the case may be.

The greatest innovation these women have introduced is the transfer of money using mobile phone prepaid vouchers. When they want to transfer money to a remote area, they make a call to their correspondent who goes to a mobile phone voucher vendor and the woman transferring the money buys an air-time communication voucher which he uses to top-up the vendor's telephone account and the money is paid to her counterpart on the other end. The vendors in turn retail the communication credit and make a profit. This really looks like e-banking, as these women are able to transfer money immediately they are informed of the existence of merchandise. This business is now heavily dependent on trust but can be used as a stepping-stone to the introduction of e-banking in these remote areas as ICTs penetrate.

In the Far North Province, another phenomenon is unfolding. It is the business of mobile call boxes. These mobile call boxes are mobile phone prepaid voucher vendors who circulate the villages either on foot, donkey or motorcycle. They sell airtime as they circulate, helping villagers to make calls, send and receive SMS. When a villager makes a call through them and is promised money either from abroad or in other towns, the mobile call box operators who are literate will ask the correspondents to send the money in their names and they will collect and deliver to the rightful owners against a fee. These mobile call box operators are already well known in the local offices of the money transfer institution and are sometimes motivated with gifts for the services rendered to recipients of money from relatives and friends.

The above cases are an illustration of how ICTs are driving development by putting the poor in contact with the rich and enabling money necessary for development to be transferred to the needy. The government can come in and draw inspiration from these cases to design a wholesome policy for ICTs deployment and usage in poor rural communities.

Issues of security are important to certain groups of people in these communities, notably the elderly and women. There is a widely held view that ICTs improve security, by virtue of the fact that people can use them to call for assistance and take measures to prevent or modify a future happening.

The cost of accessing ICTs is an important factor but it only appears to be regarded as a problem amongst those with no education. Beeping using mobile telephones is a useful means of keeping down costs in poor communities like the Far North and North West Provinces of Cameroon with very low income levels. About 40 % of beeps are returned and this is very important amongst those with low levels of ICT awareness and high levels of poverty.

Even in areas with no ICT coverage, people will travel to access ICTs in the nearest coverage areas, to the extent that there is surprisingly little difference in use. Not surprisingly, associated issues of cost, time and safety of travel are important, but



the fact that the people are prepared to travel demonstrates the high value placed on ICTs in general and communication in particular. An important benefit of ICT use is the cost and time saved by not needing to travel to access areas to communicate and get information.

The importance of literacy in the access and use of ICTs in Cameroon is well recognised, and this is supported by findings which show that reliance on written communication is lower in remote areas of the Far North and North West Provinces. With regard to literacy, the telephone is more attractive to users than other ICTs as illiterate people can express themselves clearly through them. This is especially true of the elderly and those in remote areas.

The role of an intermediary like teleshop owners, call box operators and community telecentre staff is very important in access and use of ICTs in rural areas. This survey supports anecdotal evidence that people in these communities do suffer from lack of understanding of how to use ICTs, particularly amongst the poor and lowly educated. It is difficult for rural poor people with less education in particular to properly receive incoming calls, read SMS, or e-mails, but intermediaries and attendants provide a useful service in making arrangements for incoming telephone calls, reading SMS, receiving e-mails for the recipients and downloading useful information for their customers from the Internet. This survey also reveals that calls received tend to be longer than calls made because most received calls in these rural communities are coming from family members and friends abroad or in urban areas where ICTs are easily accessible and affordable.

Taking a broad view of ICT services in Cameroon it is clear that users (and potential) users generally have a positive attitude, which is reflected in a positive intention to use services, all of which indicates that demand exists so there is scope for increase use of ICT services if barriers can be addressed. All the respondents expressed some positive expectation from ICT use. It therefore means that if the barriers to ICT access and affordability are removed, an enabling environment capable of creating an information society in Cameroon will be created. Such an environment is favourable for economic growth and development therefore capable of alleviating poverty not only in the community under study but also in Cameroon as a whole.

6.LIMITATIONS OF RESEARCH FINDINGS.

The research findings just like the findings of others discussed in the literature review have some limitations. The fact that there is very little informed discussion on what ICTs are, how they are evolving and converging, where they might be going and the implications of using them for poverty alleviation is a limitation.

The difficulty in defining poverty is another limitation, which affected both these findings and those discussed in the literature review. Currently, there is plenty of discussion on what constitutes poverty and its various dimensions, and there is little analysis relating these individually to the capacity of different ICTs.



The findings in this research discovered that many poor people tend to use ICTs for social and security than economic reasons. This is contrary to the findings in other works discussed in the literature review whereby economic opportunities and poverty alleviation are the main focus.

The lack of adequate financial resources and time were another limitation that had an impact on the findings. The research needed huge financial resources for semi-directed interview and questionnaires. The time the researcher had at his disposal to peruse the huge documentation in the government, regional and local archives was not enough.

CHAPTER FOUR



The implication of research findings to management and policy makers

4.0 Implications to International Policy Makers.

It is imperative that, in order to assess the implications which the research findings have on policy makers, it is logical to begin by ensuring the clear acknowledgement of specific needs of the communities under study in particular and Cameroon in general as discerned from the research. These needs are based on an in-depth understanding of the social, economic, and political environment of Cameroon. It therefore follows that, in order for the policy makers to design the appropriate policies in the domain of ICTs for poverty alleviation, they must ensure that the development of such policies and strategies is constantly conceptualised with a larger aim and specific impact in mind. Such policies and strategies should consider ICTs as part of a whole consisting of economical, political and social elements that constitute a wholesome developmental package.

From the research findings, it is observed that the rural poor communities of Cameroon are faced with the following barriers or obstacles to development; lack of access to business information, lack of a good road network to facilitate the evacuation of agricultural products on which the Cameroonian economy depends by 70 %, high cost of accessing ICT services, low level of literacy, lack of local content creation and free open source software (FOSS), the burden of family problems like illnesses, funerals, marriages, birth etc.

It therefore implies that International Policy Makers like; the World Bank, International Monetary Fund, International Telecommunications Union, African Development Bank, Commonwealth Telecommunications Organisation, African Telecommunications Union and the United Nation Development Programme must give a thorough consideration for these obstacles and barriers in order to be able to design fitting policies and strategies capable of alleviating poverty and lifting Cameroonians out of the poverty trap.

The implication of these findings to management in general is that these findings have shown the central role ICTs play in developmental strategies. ICTs are the main facilitators of information and knowledge transfer that are a pre-requisite for meaningful development today. Managers should therefore always include ICTs as a catalyst in all business ventures conception to assure easy flow of information and coordination. ICTs render management functions like planning, execution, evaluation control, and decision-making easy.

4.1 Implications to the Cameroon Government.



The Cameroon government is a signatory to the Millennium Declaration and WSIS action plan which both prescribe the creation of an information society in Cameroon. An information society will provide the enabling environment for development and poverty alleviation. The findings from this research have, however, identified some challenges, which can impede the creation of an information society in Cameroon if they are not addressed. To address these challenges, the Cameroon government must open up and abandon its traditional character of protection of prerogatives as Olivier Nana Nzepa observes;

“The emergence of the information society in Cameroon has caused a number of disturbances, not least through civil society’s involvement in the formulation of policies and strategies relating to ICT appropriation. For those familiar with the Cameroon government’s tradition of secret-keeping, overcautiousness, and jealous protection of its prerogatives, recourse to third parties in formulating policies and strategies is a paradigmatic change, and one which cannot simply be explained by the complexity of the ICT phenomenon, the size of the challenges or pressure from International Cooperation Organisations”

Olivier Nana Nzepa. 2004. Building the future: Civil Society’s Contributions towards the emergence of the information society in Cameroon. Available at <http://africa.rights.apc.org>

The implication of these findings to the Cameroon government lie mostly in the domain of policy design and implementation. According to the findings, the government must design and implement pro-poor policies for reform in order to set the stage for adequate ICT appropriation capable of surmounting the barriers. Such policies should be aimed at giving the poor the voice to participate in decision making.

Another implication is that the Cameroon government has to carry out a radical reform of public services by introducing e-government which enables the poor to participate in governance and empower them by bringing to them government development plans.

To ensure the smooth deployment of ICTs and accelerated penetration rate into the rural areas of Cameroon, a good ICT regulation and sane environment must exist. It therefore implies that the Cameroon government should create an effective regulatory body capable of overseeing the development and expansion of the sector.

The findings also indicate that for effective ICT appropriation, the government must decentralise decision-making with the aim of empowering the local councils and regional assemblies as enshrined in the 1996 constitution. Once empowered, these local councils can design and implement local projects that have the capacity of enhancing ICT appropriation.

These findings also show that the government needs to develop complimentary infrastructure like roads, railways and airports to support the development process engendered by the ICT phenomenon. This development should



also be accompanied by more investments in education to raise literacy levels and the health sector to reduce the stress exerted by illnesses and other family burdens.

4.2 Implications to Cameroon Telecommunications and other ICT stakeholders in Cameroon.

The research findings identified cost as the principal barrier or obstacle faced by the rural populations in accessing and using ICTs.

Just like the government, all ICT stakeholders in Cameroon have certain issues and challenges to address. Cameroon Telecommunication, the ICT leader must reduce its prices to make telephony and the Internet affordable to the poor man in the rural communities or institute a preferential tariff plan for the rural communities to boost ICT access in the communities. It must also hasten the rollout of its CDMA technology, which has the ability to offer voice, data and Internet on the same support.

Cameroon Telecommunications also has to increase its participation in the community telecentre project and equally offer training to the staff in these centres as they are currently playing a vital role as intermediaries in the use of ICTs by the rural population.

Another implication for Cameroon Telecommunications is that it has to increase the compensatory package and profit margin currently offered to teleshop owners in order to render the business more competitive thereby encouraging the rural poor with limited means to venture in the retail of ICT services. To make it more attractive to rural investors, special benefits and tariffs should be elaborated and implemented in rural communities of Cameroon.

The Cameroon Radio and Television Corporation (CRTV) is the leader of the broadcast media, which also has to address certain issues and challenges in order to facilitate the appropriation of ICTs in the rural communities of Cameroon. It should ensure the coverage of the nation territory and support community radios by giving them important programmes for rebroadcast. Its provincial stations should prepare and broadcast pro-poor programmes.

The implications of the research findings to the mobile telephone operators are immense. Mobile telephony has the potential of fast deployment and rapid penetration therefore these operators must do everything to serve the most remote hinterlands that cannot be served by landline.

As observed from the research findings, the call box operators selling their services in rural areas are very important to the illiterate and low literate groups. Like Cameroon Telecommunications, they should give the call box operators a lot of incentives to encourage them multiply the call points and therefore render access easy and affordable for the rural villagers.

Also, the participation of these operators in multi-media centres in public schools is a laudable effort that should be stepped up in order to increase the number of students with access to the ICTs.

Lastly, all the national ICT stakeholders in Cameroon should set up a training centre for local content creation and the development of free open source software



which are very important to ICT appropriation. A recent memorandum of understanding signed with Cisco to introduce IT as a subject on the school curricula and the universities is a laudable initiative and should be followed up.

4.3 Implication of the findings to local councils.

The local councils are at the forefront of rural development and the research findings have identified many implications for them. From the findings, the active participation of these local councils was very insignificant. None was actually designing or implementing an ICT project.

The implication here is that, for ICTs to alleviate poverty in the rural communities of Cameroon, these councils must set clearly identified goals pertaining to ICT appropriation and the benefits to be derived from the achievement of those goals. They have to mainstream ICTs in their development programmes by embedding them alongside all-important activities to be carried out by the local council.

This challenge calls for creativity and innovation in programme design and implementation. If the skilled manpower is lacking, the councils should outsource from organisations with such skilled manpower.

The councils also have to carry out training for skills in information management and IT technology. This can easily be done through partnerships and strategic alliances with organisations that can provide such training. Also twining with cities in developed countries that have well-developed ICT infrastructures and programmes can address this issue.

The greatest challenge for the local councils remains, however, participation and ownership by the poor. It is therefore imperative for the local councils to ensure maximum participation and ownership by the poor in ICT ventures.

4.4 The way forward: A private sector-public sector partnership.

The barriers and challenges faced by the rural communities of Cameroon constitute such a force that can only be overcome by a public-private sector partnership. Technology is expensive and deployment in rural settings is even more expensive. Cameroon has just attained the completion point of the Heavily Indebted Poor Countries Initiative, which has made available huge sum from debt relief that can be used to create a project that will pilot this partnership.

The Cameroon government should therefore call on potential investors in the rural communities to get loans from the HIPIC funds to invest in ICT ventures to assure the rapid deployment of technology in the rural areas of Cameroon. Priority should be given to stakeholders like the mobile operators and private radio and television operators whose technologies are easily deployable in rural milieu. The success of such a partnership will enable all Cameroonians to join the information super highway and enjoy its benefits.



CONCLUSIONS.

This study set out to evaluate Cameroon Telecommunication's ability to contribute to poverty alleviation in Cameroon. A review of the existing literature on the subject of ICTs and poverty alleviation has revealed that there is effectively a link between the two and ICTs have been found to be effectively alleviating poverty especially those provided by Cameroon Telecommunications like the Internet and the Telephone have been found to be effectively alleviating poverty in the rural communities of Cameroon by serving as a bridge to bring in the much needed money from abroad and business opportunities to the rural poor.

This poverty alleviation is taking place thanks to the vital role played by intermediaries like community telecentre staff, call box operators and telephone shop owners who are helping the poor and uneducated to access ICTs while at the same time generating income from the sale of airtime.

The key economic impact of the spread and use of ICTs is indirect though seriously transforming the way individuals, businesses and society, work, communicate and interact. ICTs gives the poor the voice and empowers them to be able to know and influence the events that controls their lives.

Although individual anecdotal successes using ICTs to help alleviate poverty does not indicate general trends, if one looks at a sufficiently large number of projects, patterns can be discerned. ICTs will not, on their own address most poverty issues. Moreover, the ICTs that will help fight poverty are often the older and less high-tech ones. However, it is very clear that so some aspect of poverty alleviation will require ICTs.

Generally, we can say that ICTs are contributing to poverty alleviation in Cameroon. This is evident in the rapid exchange of information with the outside world, which brings about business opportunities and educates the rural masses on health issues, agriculture, environmental and sanitation matters. ICTs have opened up these rural communities to the whole world and lives are being transformed as the local poor people learn new and better ways of living.

ICT AND HUMAN DEVELOPMENT.

The question of ICT and human development is a very complicated and controversial one. Some sceptics have argued out rightly that the poor don't need ICTs; that they are a luxury that people living on less than a dollar a day can't afford. This critique, though simplistic, point to the flaw underlying much "digital divide" thinking and many donor-led ICT programmes. These sceptics argue that what the poor need is economic opportunity, improved nutrition and health care, healthy environments, education and other components of a rewarding and sustainable livelihood. They believe ICTs can help achieve these other goals, and that ICTs are a worthwhile tool of development efforts, but they remain tools not goals. The presence or absence of ICTs is a symptom not a cause.



In order to achieve meaningful human development especially in developing countries, every available resource needs to be leveraged for maximum effect in combating poverty. ICTs can be an important part of this equation. But the desired results of the equation is reducing poverty and promoting pro-poor growth, not just increasing ICTs.

In order to link ICTs and human development, a few guideposts can be discerned. The first one is that poverty and uneven development have complex, interdependent causes. Addressing those underlying causes is the only way to combat poverty. The “digital divide” is a symptom among many not a diagnosis, and bridging or closing it is a slogan not a strategy.

ICTs enable change; they do not create it. Pro-poor change in developing countries occurs through some combination of increased resources and capacities of individuals and institutions. ICT strategies are only effective, sustainable, and worth the effort if they are integrally linked to broader, more comprehensive development and poverty reduction strategies. Mainstreaming ICTs in donor-programmes means subordinating them as tools of other, more fundamental objectives, not inserting them everywhere.

ICTs are, to some extent, social constructs. Therefore they need to be adapted to different social contexts. Development priority setting is crucial to successful development and poverty reduction.

The above guideposts can enable us to suggest certain ICT and human development priorities. The first priority is to carry out a deeper, more rigorous analysis of the ICT-related dimensions of poverty and low growth and of the possibilities and limits of ICTs as tools to address poverty and promote development.

Developing countries should in particular carry out more extensive and honest assessment of experience thus far with ICT-for-development programmes. They should have a strategic focus, in ICT programmes, on levers of change and agents of change. There should be a greater cooperation and information sharing among donors and others involved in ICT-for-development programmes.

RECOMMENDATIONS.



A) The need for further research on the subject of ICT and Poverty Alleviation in Cameroon.

This study is one of the first to address the impact of ICTs on Poverty Alleviation in the rural communities of Cameroon. As such, it is bound to generate many questions as well as providing new evidence about information and communication flows, preferences and usage in Cameroon. Further research into a number of issues raised in the findings will help to elucidate these and add considerably to the value of this analysis for policy makers and others concerned to maximise the impact on social and economic development in Cameroon.

Further research along the lines of this study will be especially appropriate in building a broader range of experiences and assessing the impact of telephony and other ICTs over time. Telephony, in particular, is being adopted in Cameroon at a very rapid rate and it is very vital to understand trends over time and the impact this is having on livelihoods, as well as taking occasional snapshots of the current picture.

Specific areas for further research may include: gender differences in ICT appropriation and use, differences in the behaviour of business and non-business users of ICT resources, the different perceptions of the radio and television as sources of information etc.

A study of ICT contribution to achieving the Millennium Development Goals in Cameroon will provide an important and challenging topic for further research along the lines of the present research.

B) The need to strengthen the capacities of ICT policy makers.

In order to effectively use ICTs for poverty alleviation in Cameroon, the Cameroon government should initiate and implement actions aimed at strengthening the capacities of national and local policy makers to formulate and establish effective ICT policies and regulatory frameworks and this should be supplemented by strengthening civil society advocacy with the same purpose.

Capacity building for policy makers as well as for civil society should include a major focus on shaping effective ICT policies and regulatory frameworks with an explicit pro-poor focus.

These capacity building actions should be tailor-made, responding to the situation of the poor and needs and systematically involving local institutions like the municipal councils, regional assemblies and consultants.

C) Enable local organisations to effectively apply ICTs for the benefit of poor people.

To make effective use of ICTs for pro-poor outcomes, the government of Cameroon and its international partners should adopt an integrated approach when choosing, designing and implementing a programme, paying particular attention to sustainability and the choice of technology.



The Cameroon government should also ensure adequate project management capacities, including monitoring and follow-up capacity, to contribute to a sustainable partnership and keep the difference between pro-poor promises and delivery at a minimum.

When choosing local partners, the government should value their strengths, weaknesses, opportunities and threats to shape a programmatic portfolio.

D) Empower local ICT stakeholders to be able to express themselves nationally and internationally.

In order to succeed in using ICTs to alleviate poverty, the Cameroon government and its partners need to acknowledge the experience that community radio is effective and cost-effective in remote and poverty stricken environments and assign priority to this medium.

The Cameroon government should be cautious when formulating global projects in order to encourage local ICT initiatives and enable capacity building.

E) Increase the awareness of ICT stakeholders regarding the potential of ICTs.

The government of Cameroon should make sure that the management of its in-country partner organisations has visions related to the use of ICTs, and acknowledges and mainstreams their development potential.

The government should through ICT stakeholders like Cameroon Telecommunications provide advice and support for combinations of old and new ICTs, as well as of technical innovations up to pilot projects that can be relevant for poverty alleviation.

International donors and implementing partners to the Cameroon government should make an effort to tie into and mainstream ICTs in the Poverty Reduction Strategy Papers (PRSP) design, implementation, evaluation and the upcoming revisions.

F) Make effective the relationships and alliances with partners and stakeholders.

All ICT stakeholders in Cameroon should continue their efforts in supporting national coordinating ICT networks by enhancing their capacities, in particular strengthening their strategic thinking in view of poverty alleviation.

Lastly, the Cameroon government, donors, implementing and all in-country ICT stakeholders should use their expertise to take a coordinated pro-poor stance at multilateral level including the World Summit on Information Society (WSIS) and the General Agreement on Trade in Services (GATS)



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