Ghana's Community Information Centres (CiCs): How effective against Mobile Telephony as a Successful Strategy for e-governance implementation

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Abstract

The paper analyses the initiatives of Government of Ghana to use ICT for improvement in operational efficiency and service delivery. This analysis is based on data collected from all known public records, reports, and other materials which were researched, and where possible, persons either directly involved with the Community Information Centres' (CiCs)project as administrators or users were interviewed. Common challenges or constraints facing project managers in sustaining the centres are also analyzed. It also determines whether the use of mobile phones gaining in popularity for instance, support the popular rhetoric which has begun to question the need of ICTs or specifically, information centres, beyond the mobile phone; thereby making the centres redundant. Finally, the analysis makes suggestions for possible ways forward in terms of ICT diffusion in rural Ghana.

Keywords: e-Governance, community information centres, telecentres, digital divide, Illiteracy, mobile telephony

1. Introduction

It is a well known fact that solutions to development issues often lie with processes of governance. An example is decentralization which goes to save costs, improve effectiveness and efficiency. The driving force for decentralization can be demand for online services and information that increase democratic participation, accountability and transparency. This includes the design of systems and institutions leading to stronger mechanisms of accountability and the possibility of participation by the citizen and other non-government organizations. (Osborne & Gaebler 1992).

Indeed, the electronic means to support and stimulate good governance is what can well be defined as e-Governance. (Sundresan Perumal et al. 2006) Many developed countries have exploited these technologies successfully for the development of their remote and hard to reach communities. Taking a cue from their experience, developing countries have used these technologies, with varying degrees of success. Many of us are both witness and participants to the exploitation of ICTs to further the goals of development.

It is instructive to note, that Information Technology (IT) and telecom are only means to an end and not an end in them selves. IT is an enabler and if not well utilized effectively for socio-economic benefits, its phenomenal growth is of very little relevance in any country, especially the developing ones.

In an all out effort to address the inequities of development, the global community of governments, scientific and research organizations, donor agencies, civil society organizations and private sector institutions have accepted the UN Millennium Development Goals (MDGs) and the targets that have been set to bring about a qualitative and quantitative difference in the life of the global poor. Richard Heeks, a professor of development informatics at the University of Manchester, has been a consistent champion of the idea that technology must be applied with sensitivity to social, economic, and political contexts. In"ICT4D 2.0: The Next Phase of Applying ICTs for International Development," Heeks explores the evolution of ICTD and its transition to an emerging "ICT4D 2.0," arguing that the first phase was dominated by Internet-enabled PC telecenters catering to development causes that fell short of expectations, whereas the emerging phase is applying ICT much more creatively to development problems. Information is critical to the development process and telecommunications is not just a means of communications, but it provides a link in the entire developmental chain.

Was Heeks talking about the truly stunning, progress made in the global mobile industry over the past 10 years?

Mobile devices have the maximum potential to stimulate the supply and demand of public services because of their pervasiveness, interactivity, multiple functions – voice, radio, internet, payment, their ability to include the most marginalized people in society, their potential to reduce opportunity costs associated with traveling or corrupt practices. Mobile phones are tools for delivering socially – oriented content. (Mishra, A.R. 2008)

Within the field of communication, where do we focus? Is it on policy, processes, the tools, the audiences, or the results? Have we as yet made the synergistic connection between policy and applications and how one is critically dependent on the other? And at what level do we begin our analysis?

This study aims to highlight the potential reforms either needed for, or as a consequence of, the Community Information Centre (CiC) innovation introduced to rural access by Ghana government, to critically evaluate this dominant model and find out whether it is achieving its purpose, and finally to present an alternative approach, if necessary– one appropriate for the conceptualization of information infrastructures that serve the goals of governance and focus on social welfare.

2. Background

The concept of shared access to information was first launched in Europe and Canada in the early 1980s through the movement of "tele-cottage". During the second half of the 1990s the concept was especially boosted by the digital revolution and the emerging interest of development organizations and private sectors. Shared access exists in the context of a broader universal access policy, which is itself embedded in a national development policy framework. It is normally affected, and sometimes directly created, by policy and implementation processes, and involves a variety of actors at the local, national and international levels.

Telecentres no doubt have the development objective of providing the unserved and underserved population with instruments that facilitate social and economic exchanges. These centres therefore have a double aim to serve as a platform of exploitation of local knowledge on one hand and to be the heart of economic and financial transactions of the

community on the other. Unfortunately, the interest in these centres has since subsided because too many projects were ill executed for various reasons. Donors believed the most important failure of ICT4D initiatives was their unsustainability. In terms of ICT for rural development, the term sustainability as used by the international development sector is most often described as the ability to maintain implementation beyond the intervention period.

Interventions, especially short –term ones, when information centres are unviable, are not well suited for ICT-based initiatives that require continued operational support, both in terms of technical advice and funds.

2.1 Ghana

The Republic of Ghana in West Africa has been poised, through its policies, to encourage shared access to its unserved and underserved population. With a population of about 23.382,848 million for 2008 according to the Census Bureau it is divided into ten (10) administrative regions.

GDP per capita at current prices as at 2008 is estimated at around US $1,500.

GDP real growth rate is 6.3% (2008 est.) and GDP composition by sector is; agriculture 37.3%, industry 25.3% and services 37.5% (2006 EST.).

GNI per capita is US$ 590 ('07). (Ghana Internet Market and Telecommunications Report. 16th May 2009)

Ghana has over the years developed her Sectoral Information Communication Infrastructure policy and plan and submitted it to the United Nations Economic Commission for Africa. She is the first country to have completed and presented her Village Information and Communication Infrastructure Policy and Plan. (UNECA)

2.1.1 Community Information Centres in Ghana

A study on rural –access in Ghana commissioned by the IICD in 2008, has revealed that, a rural community in Ghana is a deprived community which lacks telecom infrastructure, electricity and sometimes appropriate buildings. It further revealed that the absence of meaningful economic activity and skilled personnel make these locations unattractive for investors. (Akakpo 2008)

Rural communities therefore, generally have had limited access to technology, and the cost of a PC is typically more than what the average villager can afford. Due to poor connectivity, inadequate infrastructure and human resource limitations, most of the tele centres provide extremely limited services. The Ghana Community Information Centre (CiC) model which began in 2005 has been adopted to provide a hybrid not-for-profit community resource centre and for -profit telecentres. (NCA 2009).As far back as 1992, a great number of tele-centres were established and a 1997 study reports 50-60 such centres in the Greater Accra region (Mansell, 1997).

The CiC project falls within the framework of World Summit on Information Society (WSIS), where all nations are enjoined to attain certain targets, including the provision of ICT access and skills to the underprivileged and rural dwellers globally.

It also operates within the context of the Millennium Development Goals (MDGs) whose set targets address structural concerns that impede economic growth and human development. Ghana's own Poverty Reduction Strategy (GPRS) represents comprehensive policies, strategies, programmes and projects at macro and micro levels to support economic growth and poverty reduction. Within these broad frameworks ICT is being deployed within the CiCs as an integral tool. Government, through its regulators, has placed "Universal Access" requirements on telecommunications providers. These requirements have resulted in infrastructure investment – CiCs - that have made access available to some degree. These centres typically operate at a loss, though.

If e-Governance means access to online services and information that increase democratic participation, accountability, transparency, and the speed of services, could one say confidently that the CiCs in Ghana have been able to achieve these objectives? Have CiCs achieved long-term sustainability? Have the end users benefited from information to and from government, interacted with government online, made transactions online or have had organizational transformation because of the use of ICTs through the CiCs? Has the audience reaction been positive?

2.1.1.1 SOME KEY CiC CHALLENGES

ICTs through the CiCs should play an essential role not only in reaching marginal/under-served communities but also in scaling up the services at affordable costs, creating new markets and new demand for additional products and services. This however is still not happening on any scale, substantive or otherwise.

Even though the government of Ghana has an innovative ICT policy environment, implementation of the CiC idea and sustaining them, has proven to be major hurdles to achieving rural access. A study of the Saltpond, Somanya and Dodowa CiCs in the Central and Eastern Regions respectively, was conducted by the authors for this analysis.

A fully operational and functional level CIC must have the following: the physical building itself with electricity and telephone facilities; a Local Area Network (LAN) with at least five (5) workstations usually supplied by the country office of the UNDP; one server; one switch; one printer; one scanner and five (5) UPSs (Uninterruptible Power Source). (Akakpo, 2008) However, most of the CiCs lack connectivity. The CICs are at various operational and functional levels and only 32 out of 60 operational ones were fully connected by April 2009. (UNDP Accra, June 2009)

Selected communities had to have in place already, access to certain facilities such as electricity and telephones, which put other under served areas out of the loop because they do not have electricity and fixed phone lines. This has definitely been a major limitation to the idea.

Currently, these CiCs operate in isolation because there is neither centralization of standards nor a body to coordinate any such standards on what will make the centres perform better, even though a steering committee is supposed to be in existence.

Interaction in most centres has not been encouraging due to the fact that most sites are located too close to the District Assemblies which is a turn-off for ordinary citizens who do not want officialdom in their daily lives. In other cases, the CiCs are located far away from community residence for example, the Somanya CiC which is more than 2 kilometers away

from the town centre and looks like a white elephant. How then does the population buy into the idea of an Information Centre?

Additionally, the working hours of 8-5 in 5 days a week operation, as witnessed at Dodowa CiC in the Greater Accra Region, makes it even more discouraging to the ordinary folks who normally would prefer to access information during weekends, at a more leisurely pace.

Even though there is an effort at skills' development in all the CiCs, people need time and space in which to learn basic skills and fee-based access is not a viable way to achieve this. If standards were centralized, the fee-free initiative would be replicated in all the centres in order to encourage capacity building as is being done at Saltpond for the youth.

The CiCs are not transactional centres in the sense that even though the awareness to transact may be there, there is no data supporting such usage of ICTs in the rural areas.

There is also very little data supporting how the centres have transformed the lives of people who use these centres. The most important transformation, if one can say so, is that of awareness of what ICTs could do to make lives easier.

If out of 100 CiCs only 32 are fully connected in 2009, then it means Ghana has a long way to go in making the concept work to her benefit.

An area that may need more re-focusing for instance is whether the demand for communication services is sufficient to make a CiC economically viable. The CiC managers have had trainer- training sessions conducted by the UNDP. However, the donor agency cannot go further than the intervention period in order for the CiCs to achieve sustainability.

An evaluation of the project idea shows that there is an attempt to send information to the rural areas, but what kind of information? Is the existence of the centre merely to raise a strong emphasis on ICT awareness to a mainly illiterate community?

Traditionally, in Ghana, the installation of Telecenters has been seen as a technology-based project where a series of computers are placed in order to satisfy a communication need. However, there are no appropriate processes designed to understand the community and its needs and to design products and services that promote social and economic development.

Ghana's CiCs still have very limited access of rural population to social and economic information and transformation. Challenges continue to include lack of enough and consistent revenue to support running expenditures for connectivity, lack of local content and content development for the mainly illiterate rural population, technical problems which linger on for months because of inadequate technical staff – (Dodowa CiC), for example, and insufficient skills and awareness to fully optimize the use of ICTs.

The slow pace of CiC development may also be due to its lack of positive socio-economic impact, lack of centralized standards and also the fact that there may be an alternative to empowering and informing the underserved and unserved more effectively and without a lot of financial pain. The absence of Public –Private –Partnership (PPPs) involvement could also be a factor in the ineffectiveness of CiC operations.

Unless people have other venues for building their awareness of and confidence in using ICTs, the CiCs have not proven a robust method of overcoming the multiple barriers to access that many people face. It may therefore be a mirage after all.

3. Mobile Telephony

Mobile telephony on the other hand, has emerged as one of the most important and widespread forms of ICT in recent decades, with a significant impact on economic growth and poverty reduction. We are suggesting therefore, the use of mobile telephony as an alternative to the CiCs in accessibility to government services.

Mobile communications penetration has boomed in the developing world, compensating for an often underdeveloped and flawed fixed telephony infrastructure and offering a promising tool to lift more and more people out of poverty and improve market efficiency.

Studies have shown that this rapid increase in mobile penetration has contributed significantly to economic growth. Fuss, Meschi and Waverman 2005, looked at 92 countries, both developed and developing, to estimate the impact of mobile phones on economic growth for the period 1980 to 2003. They found that a 10% difference in mobile penetration levels over the entire sample period implies a 0.6% difference in growth rates between otherwise identical developing nations.

By the end of 2009 there were some 448.1 million mobile phone subscribers in Africa, up from just 373.0 million at the end of 2008 - a stunning 20 percent increase representing 75 million new subscribers in just one year. (M2 Press WIRE Via Acquire Media NewsEdge) Dublin - Research and Markets).

Mobile telephony has brought in its wake three kinds of benefits (id21, 2007) viz; incremental – offering faster and cheaper communications; transformational –innovative applications such as bringing m-banking to largely rural unbanked population and enabling people to pay for goods and services and finally, production benefits from the creation of new livelihoods, not only through professional telecommunications jobs but also through activities like re-selling airtime or phone cards.

Mobile technologies provide fertile ground to explore the provision of basic government services including e-governance services.

Awareness of computers and the internet has been generally lower than that of telephone service, thus presenting obvious extra barriers to the use of these technologies. It is noted too, that communication is widely valued and appreciated more than information-related services, an observation further reinforced by the fact that the Internet, where accessed, is used primarily for e-mail.

Mobile technology has therefore, allowed many developing countries like Ghana to leapfrog the lack of fixed infrastructure and thus provide access to telephony services to a much larger portion of their citizens where CiCs have been found wanting.

3.1 The State of Ghana's Mobile Telephony

Since launching the first cellular mobile network in sub-Saharan Africa in 1992, according to M2 Press WIRE Via Acquire Media NewsEdge Dublin - Research and Markets, Ghana has

become one of the continents most vibrant mobile markets with now six competing operators, including regional heavyweights such as MTN, Vodafone, Zain and Millicom (Tigo). At a market penetration of only just over 50%, opportunity continues to exist in the provision of basic voice services as well as 3G mobile broadband access, given the country's poorly developed fixed-line infrastructure.

Ghana's Business and Financial Times February 2010, states the total number of subscribers as 15.1 million in December 2009. Data from the country's telecom regulator, National Communications Authority (NCA), shows more than two thirds of the estimated 25 million Ghanaians have access to telephone access. Mobile network subscriptions increased from 14, 242,476 in the 3rd quarter to 15,108,916 in the 4th quarter, representing 6% growth over the 3rd quarter. Fixed networks saw a reverse growth from 267,432 access lines in the 3rd quarter to 267,389 lines, representing a negative growth of 0.02 percent. Clear indication of preference for the cellular to fixed phones.

Technology Assessment Project (TAP) of the University of Ghana, Legon, took a study tour of Moree in the Central Region with particular focus on its fishermen. It was established that the fishermen use mobile phone to communicate with their agents and customers from various parts of the country to find competitive prices. But one of the most significant mobile phone initiatives in Ghana is Busylab's TradeNet or eSoko platform which leverages on the mobile networks and their extensive coverage. It uses basic mobile phone features and the web. Enterprises and producer associations can use TradeNet's mobile service to send out SMSs to their customers, suppliers and members at a fraction of the cost. Messages sent out could include information disseminated on weather, disease alerts and extension services among others. With a database full of profiles, Busylab is also marketing services to companies that can advertise to previously inaccessible groups, reaching even the most remote smallholder farmer. The CiCs do not offer any of such assistance.

Additional developmental usage of cellular phones have been noted by Jeremiah Sam & Kwami Ahiabenu, II of penplusbytes.org, in their article titled 'Ghana's Competitive Mobile Market Spurs Multiple Apps,' March 2010, that a number of financial institutions are offering mobile financial services, which are expected to attract a huge amount of liquidity held by Ghanaians currently operating outside the banking system. MTN Ghana pioneered mobile money transfer in 2009, and other players are getting into the act. For example, Afric Xpress has introduced txtnpay, a system for remittance, paying bills, buying mobile prepaid airtime, checking bank balances and paying for goods and services. Rhukaya Adams, a sales agent at txtnpay, says that a lot of people use this system to pay their cable television bills. Indeed, most banks are now enabling clients' access to their bank accounts through mobile phones. The Ghana's Ambulances Service Directorate reports that in some parts of rural Ghana, mobile phones have helped to drastically reduce childbirth-related mortality among women by creating a communication channel between patients and health care institutions in other locations, the article added.

Regardless of whether an area is urban or rural, the value that will attract lower-income customers consists of affordable connectivity. From the consumer's point of view, connectivity means a handset and a service.

Stand-alone access centres or CiCs for instance, are difficult to maintain in rural areas and tend to have limited market demand, with the exception of phone services. This also means that, even when externally supported, they tend to have limited use and impact.

4. Conclusion And Suggestions

Research carried out for the World Bank (id21, 2007), in 24 sub-Saharan African nations, found that 57% of people were within range of a mobile signal and that a further 40% of the world's uncovered population could be served with $3 billion of market-led investment by 2015. Only the remaining 3% would require government intervention, through a subsidy of $2.1 billion (World Bank, 2007)

E-governance applications, through ICTs, represent a mechanism for delivering services more directly to poor people and for poor people to provide feedback. However, since poverty dominates most rural parts of Africa and there is the lack of access to information, knowledge, and skills that could improve earnings and lift them out of poverty, more innovative solutions should be found to enable them have interactive communications.

A way out could be leapfrogging fixed infrastructure and leveraging existing wireless infrastructure which Village Phones in Bangladesh and Uganda for instance offer. This is a viable strategy for increasing teledensity in developing countries and helping the poor lift themselves out of poverty. Another project, RASCOM, seeks to cover over 80,000 African villages, providing coverage to 80 million rural Africans. The CTO's Commonwealth African Rural Connectivity Initiative (COMARCI) is expected to assist in improving ICT connectivity in 18 African countries with the use of mobile telephony.

The ability to connect everywhere at anytime by a majority of citizens is what is important. Even the best technology and carefully crafted plans will fail unless there is sufficient education and awareness about the initiatives, capabilities, and expected responsibilities of the evolving landscape.

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