

INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) POLICY FOR CHANGE AND THE MASK FOR DEVELOPMENT: A CRITICAL ANALYSIS OF ZIMBABWE'S E- READINESS SURVEY REPORT

Brilliant Mhlanga

University of Oslo, Norway/University of KwaZulu-Natal, Durban

bsigabadem@yahoo.co.uk

ABSTRACT

The Government of Zimbabwe in conjunction with the National Economic Consultative Forum (NECF) commissioned an e-readiness survey in 2005, in a bid to assess the country's readiness to embrace Information and Communication Technologies (ICTs). Findings of this survey would then be used to coin a national ICTs policy and the e-strategy to provide a roadmap towards a knowledge society. In a quest to assess the country's e-readiness the Harvard University Guide (HUG) was used. Development in this paper is referred to as a process of change, which sets in motion principles whose objective is to eradicate poverty, injustice and various forms of exploitation. The pursuit of development therefore becomes the central pillar for policies. This paper seeks to provide a critical analysis of Zimbabwe's e-readiness survey report and also focuses on the bedrock upon which the survey was carried out. It seeks to perceive an imperative to the e-readiness assessment as also hinged on the technological determinist perspective as propounded by Marshal McLuhan (1964). This theory will be compounded by the diffusion of innovations model as coined by Everett Rogers (1962). The model strongly emphasizes the adoption of new technologies as the panacea for social change and development. The argument posited by the e-readiness survey report is that in order to bridge the digital gap, Zimbabwe needs to build infrastructure to allow ICTs to be accessible. However, the e-readiness survey report does not show a connection between the spread of ICTs infrastructure on the one hand and the economic and social development on the other. There is need to consider non-quantifiable variables, such as poverty and social justice. The other factor as suggested above is the need for Zimbabwe to address current political and economic problems, as this isolation would impact heavily on the need to be interconnected.

Keywords: e-Readiness survey, information communication technologies, infrastructure, technological determinism, indigenous knowledge system, sectoral policies.

1. INTRODUCTION

A critical analysis of Zimbabwe's e-readiness survey report is predicated on the view that, the absence of a coherent policy inhibits coordination, harmonization and full utilization of the existing infrastructure and its capacity, together with initiatives to implement ICTs. The Government of Zimbabwe in conjunction with the National Economic Consultative Forum (NECF) then commissioned an e-readiness survey with a focus on assessing the country's readiness to embrace ICTs. Findings of this survey would then be used to coin a national ICTs policy and the e-strategy to provide a roadmap towards a knowledge society. The process is informed by various factors that determine e-readiness in areas that were deemed most critical for the adoption of ICTs. In this quest to assess e-readiness the Harvard University Guide (HUG) was used. A critical analysis of Zimbabwe's e-readiness survey

report will also focus on the bedrock upon which the survey was carried out. It is imperative to assess, these findings, from a technological determinist perspective as propounded by Marshal McLuhan (1964). This theory will be compounded by the diffusion of innovations model as coined by Everett Rogers (1962). The model strongly emphasizes the adoption of new technologies as the panacea for social change and development. However, the major weakness of this model has been its top down approach informed by the leaders in society who claim knowledge of society's problems and possible solutions without stakeholder consultations. Technological determinism as a theory holds that plugging poor counties into the Internet will close the digital divide. A position purveyed by the e-readiness survey report. The argument posited by the e-readiness survey report is that in order to bridge the digital gap, Zimbabwe needs to build infrastructure to allow ICTs to be accessible.

The position taken by Zimbabwe's e-readiness survey report (2005) is that the widening digital gap is caused by lack of ICT infrastructure, especially in the rural areas. ICTs Infrastructure in this case are projected by Nicol (2003) grouped as into three categories;

- Information Technology – these use computers, which have become indispensable in modern societies to process data and save time and effort.
- Telecommunications technology – these include telephones (with fax) and the broadcasting of radio and television, often through satellite.
- Networking technologies – in this case the Internet is the most popular. This has extended to mobile phone technology, voice over Internet protocol telephony (VOIP), satellite communications and other forms of communication that are still in their infancy.

A critical analysis of the approach used in this survey shows that mechanisms used towards formulation of the e-readiness survey are a preserve of those in power; governments or official institutions. It will also show lack of understanding of social related issues, such as attempting to tackle poverty, unequal distribution of resources in a given polity and issues to do with social justice. This weakness was characteristic of the team of consultants who were from a natural science perspective created an indelible bias towards technology determinism, as opposed to some aspects of social constructivism. However, it should be informed by a vision, goals and plans that guide the activities of many different actors. Nicol (2003) says such a policy move generally covers three main areas; telecommunications (especially telephone communications), broadcasting (radio and TV) and the Internet. It is also worth noting that coining an e-readiness survey report entails paying attention to sector specific policies.



Figure 1. Source: Mansell and Wehn, 1998

Mansell and Wehn (1998) suggest that the need for integrating national ICT strategies overlaps with four well-established policy fields; technology, industry, telecommunications and media. In some cases the absence of a national ICT policy leads to the developments of sector dependent policies. It is worth noting therefore that an e-readiness survey as a prelude to a national ICT policy should focus on the integration of this sector specific policies into a broad framework.

Following arguments presented above in Figure 1, it is posited that ICTs are fundamental a part of the global knowledge society. They have contributed towards development, especially when coupled with other factors. We also note that although it might be disputed that ICTs have caused some radical changes, they have remained a prerequisite and are now fundamental to the functioning of society. However, evidence even from the government sponsored e-readiness survey shows that Zimbabwe lacked sectoral policies as shown above. This problem has been compounded by political and economic challenges obtaining in the country.

A case study of Zimbabwe's information and communication technologies e-readiness survey

The e-readiness survey report's major emphasis is accessibility of the ICTs infrastructure. In the report it is further suggested that the survey sought to determine availability of ICTs (with teledensity, infrastructure availability and capacity as main indicators), affordability, usage, policy environment, uptake of ICTs in the sectors defined below and barriers to increasing access (2005). Furthermore, in using the Harvard University Guide (HUG), the survey emphasized five categories to assess overall e-readiness; network access, networked learning, networked society, networked economy and networked policy. This approach has formally been referred to as the pentagon method.

The e-readiness survey report further says diffusion of ICTS among newly resettled farmers is indeed by computer illiteracy, foreign language usage on the internet, unfamiliar user faces and irrelevant content. This suggestion calls for the adoption of indigenous knowledge system [IKS]. Zimbabwe's e-readiness survey report (2005) also highlights that existing communication policies do not adequately address the promotion of use and investment in information and communication technologies (ICTs) for agricultural, development, production and marketing.

In e-commerce, business to business transaction seems to be luxuriating only with face to face transactions involving clients or consumers. The model is skewed towards the old sender-message-receiver paradigm. The model therefore in this ambit is through broadcasting which is also restricted to television and radio. The report also posits that broadcasting is concentrated in urban areas, thereby entrenching the digital gap between the urban and rural communities (2005). This is aggravated by lack of a clear legal framework to support electronic transactions.

In e-education and training, one of the major sectors in terms of human resource production and determining whether they will be skilled or unskilled products at the end, faces a serious limitation to access to ICT infrastructure, such as power and communication. Most rural schools have limited access. This corresponds with the electrification of some regions while others have no electrification-taking place. The report is silent on this development inequality, yet the concept of development infrastructure features prominently in the report. Primary and secondary schools have limited access with the former having the least access. It is also said teacher training colleges and polytechnics have limited access. Universities are placed at the pinnacle (2005). According to the e-readiness survey report

(2005) this also retards use of ICTs by citizens, as few people attain university education while over 80 percent of the country's population attains primary and secondary education.

National and International bandwidth capacity is low and the cost is high thereby limiting the use of ICTs in this sector. However, due to a deliberate government initiative aimed at improving access, schools and colleges in the urban areas now offer courses leading to A+C computer maintenance and International computer Driver's license (ICDL). The report further suggests that the government holds enormous potential for e-government through its wide area network and products such as systems application product (SAP) software. Thus further suggesting the existence of an entrenched deficiency in terms of access. It is also noted that government and major business companies are mainly on line. However, provision for citizen to government does not exist. This is inimical to democracy. The report also states that institutional mechanisms are neither well defined nor coordinated and the application systems are not largely integrated. This has been blamed on lack of government framework that would clearly elucidate on the need and development of e-government.

The above sector corresponds with the shortfall in the e-governance sector. The e-readiness survey report (2005) notes that almost all government departments have Internet and e-mail facilities. However, these are said to be grossly under utilized as information on e-governance is limited. There is no access to interactive communications for citizens to citizens, government to citizens and citizens to government. These are necessary ingredients for people centered information interchange. It has also been aggravated by lack of institutional mechanisms that will oversee the co-ordination of e-governance at national level.

The study also shows a keen interest in the gender dimension. In the e-readiness survey report, it is stated that women in rural areas experience relatively high social and economic isolation arising from their limited connectivity and lack of access to information and communication technology and training (2005). This has been aggravated by the patriarchal nature of most Zimbabwean communities. However, the e-readiness survey report is also void of these social issues, yet they determine power, control and access to resources. High costs, lack of relevant content for rural developmental activities and the English language as a medium of communication also impede access to ICTs. Most rural communities whose communication is predominantly in local languages poorly understand English, despite the argument for Zimbabwe's high literacy rate.

The e-readiness survey report (2005) also says small and medium enterprises (SMEs) cannot afford ICTs due to constrained budgets. The recommendation therefore is that software solutions that are specific to (SMEs) should be facilitated in order to encourage access to ICTs and then conduct awareness campaigns. According to the e-readiness survey report, this study was carried out in all sectors of the economy to establish how e-ready Zimbabwe is to embrace ICTs and also to highlight gaps that exist. The digital gaps can easily be noted closely analyzing the 2002 census figures. According to Zimbabwe Central Statistical Office (2002), the urban population is pegged at 3 459 183, 29, 7 percent of the entire national population of which 49, 3 percent are male and 50 percent are female. Then in the rural areas the total population was pegged at 8 175 494, which is 70, 3 percent of the total population of Zimbabwe. This shows that rural communities are the most affected, not only in terms of access to ICTs, but knowledge and usage of these new media technologies.

It was further noted by the Zimbabwe Central Statistical Office that of the rural population 4 248 162 are females, that is a total of 36, 5 percent of the population of Zimbabwe. According to the e-readiness survey report this implies that access to ICTs and use by rural communities, would benefit a significant proportion of the population if

implemented. Access to ICTs, by women would therefore cause a positive ripples effect towards the development of rural communities.

The report seems to also point that 43 percent of the population is below 15 years of age. Thus implying that the country is predominantly youthful and this augurs well for ICT usage. Only 4 percent is above the age group 64 years. It is worth noting therefore that there is a high proportion of the economically inactive citizens: youths. It would also be argued that from this basis a high proportion of potential ICT users are not economically independent.

The Zimbabwe e-Readiness Survey Report and major economic trends

The Zimbabwe 2005 budget statement presented to the Zimbabwe Parliament and also broadcasted live (on radio and TV), stated that agriculture forms the back bone of Zimbabwe's commercial activity (Murerwa, 2004). Thus accounting for 16 percent of the Gross Domestic Product (GDP) and 66 percent of the workforce, an analysis that alludes to the positive impact of the recently embarked on land reform programme. It is also purported that this reform is likely to result in an increase in income generation and the ballooning number of people earning a living directly from agriculture and related activities (Zimbabwe e-readiness survey report, 2005). The e-readiness survey report further holds that introduction of ICTs in this sector is also likely to contribute towards poverty reduction. Thus generating wealth at individual, family, community and national levels. Mining also contributes to 5 percent of the GDP and with manufacturing pegged 18percent.

The e-readiness survey report (2005) posits that despite the presence of a functional industrial sector Zimbabwe had been dogged by a run away inflation rate of over 622,8 percent as of January 2004 which dropped to 209 percent in October 2004. And is purportedly expected to decline by December 2005. According to Zimbabwe Budget Statement and Monetary Policy statement estimate for 2005 is 27.5 trillion Zimbabwean dollars (Murerwa, 2004;Gono, 2004). Thus creating a budget deficit of 4,5 trillion Zimbabwean dollars, about 5 percent of GDP. However, following these figures and generalized economic speculation shown above, the reality on the ground shows the contrary. According to the e-readiness survey report the Consumer Council of Zimbabwe (CCZ), estimated that by November 2004, a family of six required ZW\$1,6 million a month for basic needs. However, reality on the ground shows that this estimate was less. Interestingly, it is stated in the Budget statement for 2005, that the Government of Zimbabwe in attempting to address the problem of bracket creep and also to enhance disposable income in the hands of tax payers, had consequently set the tax-free threshold at ZW\$750 000 per month (Murerwa 2004). This unprecedented figure meant that over 84 percent of the civil servants were no longer eligible for pay-as-you earn (PAYE). According to Murerwa (2004) while such a move improves disposable incomes, it undermines the culture of paying tax, purportedly inherent in civil servants. He therefore suggested that it is necessary for most people to be brought back in the tax net.

This figure had to be revised further upwards, in successions from ZW\$1 million per month. A further proposal was made to widen the income tax bands to end at ZW\$108 million, above which income was to be taxed at 40 percent, as from January 2005. This political populist move meant that three quarters of the population was below the taxable range. Thus leaving the government with little revenue generated from taxes. This has led to criticisms of government's failure, since one of the major functions of government is to collect taxes for service delivery, therefore failure to collect taxes amounts to poor governance. Thereby falling short of bad business practice. The e-Readiness survey report (2005) says following the budget figures mentioned above consumer council of Zimbabwe estimates that poverty datum line is pegged at 70 percent. However, rampant poverty implies

that contrary to the proposal by the e-readiness survey report (2005) on the need for government to priorities access to ICTs, there is another challenge to be attended to, poverty, coupled with the failure of the agriculture sector and economic challenges the country is facing.

Electricity power supply is also a major factor in determining access to ICTs. Sources of electricity are Hwange Thermal Power Station, which accounts for 920 megawatts, while Kariba Hydro-electrical power accounts for 750 megawatts. Then some small electricity generating stations at Munyati, Bulawayo and Harare act as back ups to the national grid in case of a local black-out and they only provide around 300 megawatts (2005). Generally, electricity consumption is pegged at 2 750 megawatts. This implies that Zimbabwe has a deficit of 780 megawatts and has therefore, become a net importer of electricity from Zambia, Mozambique, South Africa and Democratic Republic of Congo. It follows therefore, it is not feasible to sustain Zimbabwe's rural electrification projects with the figures presented above, save for a political ploy of re-inventing consent from the rural population. Furthermore, considering the economic problems obtaining as stated above, Zimbabwe faces a difficulty of carrying out most of the planned development programmes. This has been aggravated by foreign currency shortage bedelving the economy.

In response to this the e-readiness survey report (2005) suggests the need for exploiting solar power to boost power generation capacity and also wind power as a source of electricity. Plausible as this suggestion might be, it also ignores the fact that infrastructure for the exploitation of these renewable energy sources would require foreign currency for Zimbabwe. This creates an increase in burdening an already ailing economy. We therefore note that electricity is a major factor in access to ICTs, especially in rural Zimbabwe. However, the e-readiness survey report is silent about the progress of the rural electrification programme. Arguments on this programme have been that much as it is welcome, as a national programme it is not feasible, sustainable and not wholly inclusive. However, it is worth noting that political ends influenced the propositions posited above, since the contractor in this e-readiness survey is the government. The latter is due to the fact that same regions have a poor road transport system, which needs to be addressed first if access to ICTs is to be taken into the rural areas. Further observations shows that the greater part of Matebeleland; one of the marginalized regions, is not electrified, even some areas that are in proximity to local district councils, yet Hwange Thermal Power Station generates 920 megawatts, the highest electricity power producer in Zimbabwe. Another interesting observation is that Matebeleland produces the highest electricity grid needed in Zimbabwe; Hwange Thermal Power Station and Kariba Hydro-Electric Power Station, which is located in the southern end of Kariba, Bulawayo Power Station and import electricity through Insukamini, in Matebeleland. This observation implies that Matebeleland provides electricity for the entire nation, yet it remains in darkness, and in dire need, with poor road infrastructure, and communication network. The e-readiness survey report also deliberately ignores this policy lapse most probably for political reasons.

According, to the e-readiness survey report (2005) the other sector that is highly affected is the health and social welfare services which the following provides:

- a) The Ministry of Health and Child Welfare.
- b) Local Authorities aided by the Ministries of Health and Child Welfare.
- c) Mission Hospitals generated by Church organizations that are aided by the Ministry of Health and Child Welfare.
- d) Industrial medical services mainly funded by industrial organizations and
- e) Private Medical services mainly funded by private individuals and organizations.

This section of the report alludes to the use of computers in this ambit. However, there is omission of positing that even mobile phones are part of ICTs. The other indigenous sector that is widely consulted and useful in the rural areas is the one headed by Zimbabwe National Traditional Healers Association (ZINATHA). Submissions made to this effect by the silence of the e-readiness survey on this group suggest that the group has little or no use of ICTs, yet most people end up resorting to consulting traditional healers for help due to lack of drugs and equipment, particularly in rural areas. This conclusion creates a major limitation of the e-readiness survey findings as being pre-occupied with other issues and ignoring the social factors that play a positive role in development. In attempting to assess the impact of some social factors alluded to above, communication and the creation of social rapport, which leads to community empowerment cannot be over emphasized. Melkote and Steeves (2001) suggest that failure and harmful outcomes of much development interventions are due to lack of communication, prioritizing the needs of most impoverished groups (in this case rural communities) and the ignorance of culturally and historically sensitive issues that pay cognizance to the relatively salient key social divisions. Such divisions include, gender, race, class, ethnicity, age and religion. These scholars further point that the major goal of development is empowerment, whether at individual, community or national level. It is hinged on the pro-persuasion and pro-top-down biases, derived from the modernist view of development.

2. ICTS AND THE CONCEPTUAL FRAMEWORK

This approach gives credence to the diffusion of extension services. Melkote and Steeves (2001) argue that extension of these services had long been and continues to be regarded as a logical and systematic method for disseminating productive and useful knowledge and skills to receivers. Most extension programmes were informed by Everett Rogers' (1962) diffusion of innovations model. This is seen as an outreach programme, as is the case with Zimbabwe' e-readiness survey. Obibuaka (1983) says ranging from the time of introduction to most African states by USAID, the concept of diffusion of innovation has always been hinged on the notion of modernizing everything meant for development. The e-readiness survey report (2005) in tandem with this conceptual approach says 'modernizing' this sector through ICTs will contribute directly to poverty reduction and ultimately eradication. A vision that overlooks the importance of other social factors and non-quantifiable variables in social development, like social justice. This approach will cause a major set back in the e-strategy and e-action as it depends on a lot of technological and scientific practices vis-à-vis communication methods. Melkote and Steeves (2001) hold that the diffusion model assumes that a proper contribution of mass-mediated and interpersonal communication strategies can move individuals from a process of awareness of new technology through interest, evaluation, and finally the adoption of technology. The limitation of this model is the pro-innovation, pro-persuasion and top-down nature. Thus underpinning on its strong emphasis the adoption and under-emphasizing recipient input into development decisions and processes. Colle (1989) says not only did extension operating methodology embrace the pro-innovation bias but, also took it upon itself to decide what innovations were best for its citizens, followed by campaigns to convince the people as recipients of wisdom of its choice. This also shows the influential power of the sponsors of any development programme. They use financial backing to pro-up awareness, as a major drive to conjure development. It is stated that the report will be reviewed during the e-week period whose activities will include awareness campaigns, debates, and publicity through all available media (Zimbabwe e-readiness survey report, 2005). In this case the media is government controlled and financed by public funds. It is therefore bound to support any government effort whether positive or negative, thereby

stifling views of other stakeholders, such as the civil society, development non-governmental organizations and the business community. Inputs obtained will then be used to formulate a national ICT policy framework and e-strategy. According to Rogers (1962) information dissemination evolved from extension agents to change age, who are in this case professionals who collect, collate and convey all research generated in order to influence the adoption of decisions in a direction that is pre-conceived. Thus setting a one-way flow of influence oriented messages from change agencies through a top-down paradigm on the rural communities. Melkote and Steeves (2001) describe this move as a communication process that eventually earned itself the derisive sobriquet, “top-down” communication.

This approach acknowledges the capabilities of rural communities in adopting the innovations selected for them but incapable of making rational decisions from variety of choices they have. According to Melkote and Steeves (2001) this approach can be diagrammatically represented in the following way:



Figure 2. Source: Melkote and Steeves, 2001

Added to the model above, are two biases as introduced by Daniel Lerner (1955) in his thesis, “The passing of Traditional Society”. The biases are; first mass media bias, secondly, the pro-literary bias. These were seen as helping to multiply the effects of change agency at interpersonal levels of communication. The mass media in this model would be responsible for widespread awareness campaigns in the interest of change agencies. The change agent in this case is the government which controls the media and has all the resources to effect change. Melkote and Steeves (2001) suggest that messages that are usually contained in media have some persuasive components, derived from the “bullet-theory” of communication, and are believed to usher a climate of acceptance. It is noted therefore that these change agents (government consultants) would furnish targeted segments of adopters with details of information and the skills necessary to make adoption of the innovations feasible.

Early adopters would serve as the role models for others to emulate in their social system. This is believed to lead to a trickle-down-effect to the rest of the community. This model can be represented in the following way:

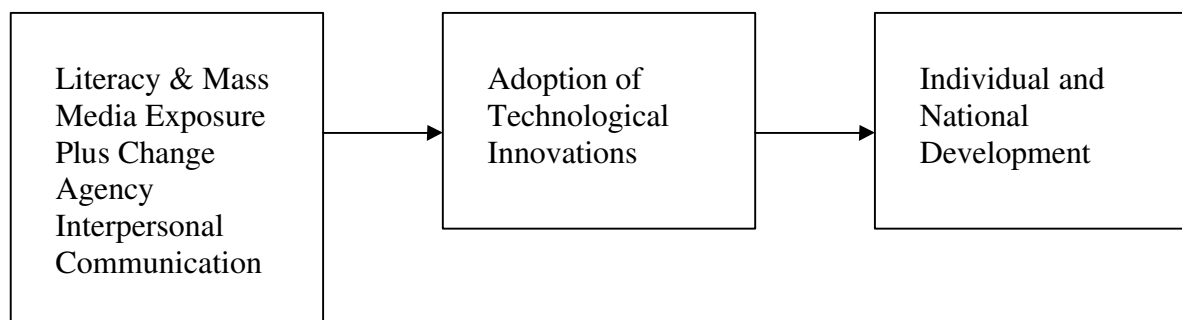


Figure 3. Source: Melkote and Steeves, 2001

The model presented above is based on a modernist approach, which according to Claude Alvares (1992) holds that knowledge is power, but power is also knowledge. And continues to suggest that power decides what is knowledge and what is not knowledge. Castells (1997) says this has continued with the advent of bi-polar theories and models. Thus he further suggests the existence of the notion of “fourth world” versus Network society. He adds that a new global paradigm based on the logic of network information age in which power is diffused in global networks of wealth, information and images exists. According to Castells (1997) in a fourth world, this new network society defines control and access to the ICTs. Thus creating a sharp contrast that is seen as completely irrelevant to the global network society.

The conceptual analysis of ICTs usage in the developing world is also linked to another theoretical framework, technological determinism, as coined by Marshal McLuhan (1964). Technological determinism holds that plugging poor countries into the Internet will make them rich and develop faster. Using the technological determinist perspective the Internet is seen an engine of social change and not an information highway. Added to this view Mudhai (2004) says no other technology, not even the Internet has changed lives and work in Africa as much as the mobile phone have. Mudhai (2004) adds that more anecdotes indicate that the continent is changing; having let technologies of freedom ring Africans continue to unleash the power of new technology to cause digital revolution. Following the technological determinist's perspective as enunciated above it is further noted that the theory views technology as the central causal element in the process of social change. It also holds that people's lives are transformed according to technology rather than human agency. Fischer (1992) argues that to determinists technology is an external force which when introduced into a social situation, produces a series of ricochet effects, a phenomenon which he further calls “billiard ball” approach.

In view of the above Croteau and Hoynes (2003) add that people are seen as passive elements in a process of social change. Thus likening them to a proverbial chessboard. According to McLuhan (1964) technology as the medium was seen as shaping human senses in such a way that social outcomes would be inevitable. This implies that the very nature of the medium is the key to its social impact. He reiterated that if influence of the media interests us, then our attention should be focused on the ways each new media disrupts tradition and shapes social life. McLuhan also moved a sophisticated thesis in which he purports each medium shapes our senses in such a way that certain social outcomes would be inevitable. He further argues that since ICTs have become the dominant form of media and all encompassing, it would be virtually impossible for people to see how technology influences them.

2.1 A Critical Assessment of the Zimbabwean Readiness Survey Report and the Digital Divide

The e-readiness survey report does not show a connection between the spread of ICTs on the one hand and the economic and social development on the other. Bethke (2004) says this approach suggests a leap into the information society without going through other stages of development. He further argues that each continent has a handful of successes in digital revolution. In Africa the group in winners of accessing the digital revolution is limited to South Africa and neighboring few countries, together with some West African nations. However, it is worth mentioning that the losers of the revolution are mostly located in Africa and Asia.

Bethke (2004) further says inasmuch the winners and losers of the digital revolution can be identified from a global perspective, the same approach cannot be used to identify the

reasons. Thus it is noted that for this to be understood, internal structures of each individual country must be looked at in close detail. Bethke (2004) identifies South Africa as the winner in affording access to the digital revolution. He adds that findings from some studies in the South African case indicate that the extent of involvement in the global economy and the national policy towards information are two determining factors of performance in the ICT sector. In the case of Zimbabwe, therefore, political leadership controls ICT policy formulation as is the case with the e-readiness survey report, which was government controlled. This tends to limit the spread of technologies, hence impeding the ICT sector from developing.

An attempt to regulate the use of ICTs, especially the Internet inhibits efforts to bridge the digital divide. Positive feedback, the cycle of innovation, spread and usage of Internet technology is growing fast in the advanced nations for the digital gap between the first and third world to narrow. Bethke (2004) concurs by adding that it is essential that we qualify our high expectations of ICTs for development and assess present processes realistically, not just optimistically.

Using the determinist view of technology, it has been noted that availability of technology acts as an agent of development. The e-readiness survey report is predicated on this logic. It also dwells on the technical aspects of technological determinism and infrastructural developments as conduits of change and developments, instead of paying attention to some social and political factors. Karwatzki (2004) says United Nations has fallen into the technological determinist trap by stressing the importance of ICTs infrastructure for development processes, pointing out that there are more computers in the developed world than in the rest of the world, and more telephones in Tokyo than in the whole of Africa. The United Nations has further called for the South not to be excluded from digital developments in the future. This call follows, most national and inter-national initiatives to bridge the digital divide.

It is imperative that ICTs be harnessed for structural poverty reduction. These structural projects should in this case be aimed at health care projects, improving the educational opportunities of poor sections of the population and e-trade projects aimed at giving the poor access to the economic system. The above suggestion follows the social constructivist perspective as opposed to technological determinism. Kartwatzki (2004) calls for the need for ICT projects that are legal and within economic reach of poor sections of the population. They can also be adapted to the conditions in which those impoverished groups live, and are expected to help in job creation, income generation and the establishment of new businesses. There is need for open source codes to afford a chance to adapt these technologies to local needs and to develop them further. It is therefore important to keep re-establishing the relationship between ICTs and poverty reduction.

The e-readiness survey report raises the assumptions that by bridging the digital divide Zimbabwe will be able to close the knowledge gap. According to the report this is achievable through the development of infrastructure and making accessibility to digital means and ICTs generally more open. Van Audenhove (2002) holds that information and knowledge are the driving forces of development in the new era. He further argues that the view that access to ICTs and more specifically the internet leads to development in the third world is widely spread. This idea is taken for granted and generally misleading. Computer hardware, satellite connections and fibre optic cabling are not the major enabling structures. One major factor for consideration is affordability of basic technology, that is, appropriate to local conditions. This is a social constructivist view as opposed to technological determinism, which sees technology as the epitome of social change and development. It is noted therefore

that substantive infrastructural considerations are affected by government policy and are influenced by policy prescriptions, thereby negating the need for consultation. Over the years donors have also shifted their focus to investing in ICTs and more particularly the Internet. Zimbabwe provides a case in point. This is further compounded by the e-readiness survey report, which holds that by plugging Zimbabwe into the ICTs path and Internet will lead to instantaneous developments in information and social developments.

The above assumption has not been feasible in reality. The logic of donor crusade therefore has been that the third world cannot be allowed to miss the new information revolution, as it did with the industrial revolution. Van Audenhove (2002) adds that it is not surprising, to note that in most third world countries, emphasis is placed on developing policies, that are skewed towards progress in information society. This is also measured in terms of how many people have access to Internet at what speed and at what cost. More often, the belief in ripple-effects caused by the development of ICTs infrastructure stems from the present forms of e-education, such as on line service. Van Audenhove (2002) describes this view as too simplistic. It tends to simplify the relation between information, ICTs and development. This is predicated on some highly questionable assumptions.

Firstly, the assumption that ICTs are neutral. To argue that technology is neutral stems from the belief that technology develops independently from society. This is also linked to the technological determinist perspective that views major developmental shifts in society as resulting from technology. However, it has been noted that the main reason why technology transfers do not work is because technology does not develop apart from society, Van Audenhove (2002) concurs by suggesting that technologies come to fruition in a certain societal context. This forms another major assumption and weakness of Zimbabwe's e-readiness survey findings.

The second fallacy is that information is at hand. It holds that availability of massive amounts of information lead to the floating of information in the cyberspace. Furthermore, the assumption holds that the third world can only access this information by way of wiring and connecting. This view ignores the fact that ICTs are only for use if they provide people with useful information and applications. Van Audenhove (2002) adds that the problematic of ICTs discussion is that most information is produced in the West and reflects western needs, values and interests. These views tend to neglect the fact that information is contextual. Information can be of real value if it is presented in the language of the user and if it has a direct relevance to the specific contexts of the people in the third world. The e-readiness survey report also does not acknowledge Zimbabwe's weak language policy or lack of it.

The other problematic fallacy is that information equals knowledge. Information is seen as useless unless people possess the necessary capabilities to actively transform into knowledge. Van Audenhove (2002) says ICTs can contribute to development in a specific context and under certain circumstances, which are not always in place in the developing world. This therefore implies that the ideology of the information society, the hype of the Internet and the eternal belief in technology as the solution to human development are dangerous fallacies. These tend to shift focus away from more structural causes of development. Such an approach also ignores the causes of social exclusion, as can be seen with the e-readiness survey report. A more critical analysis would also show that access to ICTs risk focusing on 'wrong' priorities. Investment in ICTs without taking into account other issues, sectors and with lack of attention to many barriers will probably lead to the creation of white elephants. An example is the case of donations of computers to the rural communities by the President of Zimbabwe, without paying attention to the need for computer literacy. Van Audenhove (2002) holds that the central element of the information

society is not information, nor access to information; it is individual and collective capabilities and knowledge. These are also dependent on sound education policies, with a bias towards computer literacy. An example in Zimbabwe is Matebeleland region, which is lagging behind in terms of development, and the education sector. It follows therefore that such a region has other needs to be addressed before being plugged into 'the access to infrastructure hype'. The latter is not a panacea to most development problems the region is facing.

Following the case of Matebeleland region, the e-readiness survey report further used the disputed 2002 Central Statistical Office census report which gave figures tailor made to tally with politically motivated figures generated during the much contested 2002 presidential election. A move aimed at offsetting allegations of rigging. On the case of Zimbabwe, the World Economic Forum (2002) recommends that the country should first attempt to stabilize economic and political environment. Sort out the land reform policy, liberalize ICT market, establish development cooperation with all neighboring countries and ensure more stakeholder participation in policy making. Zimbabwe was also urged to improve universal access and affordability, considering that she has the highest literacy rates in the region. The World Economic Forum (2002) further suggests the need for installation of more telephone and Internet lines outside urban areas. However, minimization of costs of ICTs and investing in domestic production of electricity, copying from the Mazambican case of Cabora Bassa, is offered as a prerequisite. The World Economic Forum (2002) adds that Southern African Development Community (SADC) should consider establishing enforceable and acceptable political and economic requirements among its members for the establishment of ICTs e-readiness surveys and ultimately policy.

According to Rhodes Journalism Review (2003) abundance of information leads to a shortage of knowledge. In the technological world information is a problem not a solution. The other problem with information on the Internet is that there is no point of view. There is no sense of what the audience is supposed to do with the information. This critique of information society has led to a call for wisdom, that is, the capacity to know what body of knowledge is relevant to the solution of significant problems. Knowledge as pointed above is in this case context specific, self contained and confined to a single system of information about the world. The Rhodes Journalism Review (2003) concludes therefore that one can have a great deal of knowledge about the world but entirely lack wisdom.

Following the above stated weaknesses of banking on technology, it would further be suggested that technological measures alone would not be enough to bridge the digital divide. UNESCO (2003) holds that social political and cultural aspects of the information revolution must be taken, if people in the south are to reap its benefits fully. Thus paying credence to access to information and knowledge as increasingly determining patterns of learning, cultural expression and social participation in development. This provides opportunities for effective poverty reduction. Knowledge has therefore become a principal force of social transformation. UNESCO is as a result promoting "knowledge societies", as opposed to a more technocratic concept of "information society", and also stressing connectivity.

According to UNESCO (2003) building knowledge societies rests on four key principles;

- Equal Access to Education
- Freedom of Expression
- Universal Access to Information based on a Guarantee of a strong Public Domain of Information and

- The Preservation and Promotion of Cultural Diversity and Multilingualism (including language policies).

This concept was also omitted in Zimbabwe e-readiness survey report. The survey depicts the development of satellite connections and broadband (fast internet connections) in the third world and providing communities with access to connected computers as enough in bridging the digital gap. Such an assumption leads to the creation of the fallacies mentioned above. There is need therefore for political will. UNESCO (2003) further suggests that providing people with access to information does not only depend on making computer terminals available in places that do not even have electricity and allowing people to use them. It is noted therefore; that the Internet can only be relevant to an individual or a community in as far as it provides them with information that is pertinent to their needs in a language they can understand. There is need for an increase in the number of languages on the Internet and support for local content production. This means that arguments stated in the e-readiness survey report based on Zimbabwe's high literacy rate cannot be given as the panacea for development in the rural communities. One of the factors contributing to lack of development in a country is the urban bound migration caused by lack of rewarding mechanisms in the rural areas. Migration has further widened the digital divide as literacy rate swells in the urban areas at the expense of rural communities.

Considering, therefore, that literacy rate in the rural areas is low, it becomes imperative for people to tap the potential of ICTs and attempt to improve on their lives using indigenous languages and knowledge systems. This view advocates for a fusion of indigenous knowledge systems and modernized knowledge systems as recipe for meaningful development and poverty reduction. In order to maximize these social benefits would depend on a strong commitment of the public sector. In support of the above Berger (2004) sees the dominant view, that giving people access to ICTs would automatically lead to their empowerment, as misleading. The dominant view holds that ICTs are expected to conjure up the solutions to problems of poverty and under-development. This approach is utopian as it gives less focus on issues of context.

Another weakness resulting from Zimbabwe's e-readiness survey report is the failure to acknowledge that these ICTs do not operate in isolation from one another. Access to ICTs in the rural areas cannot be done in isolation from the use of telephones. In the rural areas for example, tele-density is said to be low. This is usually coupled with few modems available for converting computer signals to tele-signals. The e-readiness survey report falls short of highlighting that availability of tele-services, together with a developed road network would narrow the digital gap between rural areas and urban areas.

Zimbabwe's e-readiness survey report fails to explain the existence of cell phone networks disparities in the country. The reason is that the differences are political. Hence, seeking to offer an explanation would impact negatively on their source of funding since the e-readiness survey was a government project. Some failures and weaknesses of this report are hinged on the political economy of the project. A comparison of the case of Uganda's joint venture between MTN and Grameen Foundation of USA, has allowed the extension of telecommunications access to rural villages across Uganda. In Zimbabwe access to cell phone network is limited to NetOne. However, Zimbabwe enjoys the services of three cellphone network providers; Econet, Telecel and NetOne. The first two are private service providers while NetOne is linked to the government. NetOne therefore enjoys the monopoly of being the widest and far reaching network provider in the country. The reason for this is lack of a clearly laid down telecommunications policy. This also shows government's interest in control and continued hold of ownership.

The Ugandan case study shows how opportunities are made available for poor rural individuals who became village phone operators (VPOs). According to Musingizi (2005) this project is available in 49 of Uganda's 56 districts, and also provides special airtime tariffs. This project has also boosted e-agriculture. Maize producers are said to be able to save money on transportation costs, as they use village phones (MTN services) to access details of current prices of maize in various markets, (Musingizi, 2005). Farmers are therefore, able to negotiate a fair price for their crop. People are also able to make a call without having to travel many kilometers to the nearest town. Musingizi (2005) adds that such projects can be established in areas where electricity is unavailable and where the MTN network can only be accessed with a booster antenna. The Ugandan case study serves to highlight the need for a concerted effort in providing services. Thus raising the importance of convergence between the use of telecommunications and cellphone networks. Where a service provider fails the other must complement, as is the case between South Africa's Vodacom and Telekom in the rural communities.

According to James (2001), a 'good' policy on ICTs must not only rely on sufficient technical and material resources (networks) and skills, but it must be in tandem with other societal policies. It has been noted that rapid development of e-commerce in many regions of the world has led to different responses from governments. These are said to range from full-blown participative policy processes, to implementation strategies involving rapid formulation of legislation and the security risk surrounding online business transactions. James (2001) further proposed three hierarchical levels for information policy; infrastructural policy that deals with the development of national infrastructures, vertical information policies that addresses sectoral needs, horizontal information policies that impact on broader aspects of society such as freedom of information. The e-readiness survey report is silent on these issues. Following arguments presented above it would be suggested that the absence of infrastructural policies and implementation strategies would make it impossible to focus on any other vertical or horizontal related ICT policy. According to James (2001) vertical information policies include sectoral policies such as education, tourism, manufacturing and health. Then horizontal information policies refer to policies that tend to influence broad aspects of society such as, policies that relate to freedom of information, tariffs and pricing and internal use of ICTs by government and its rapport with citizens, business, labour and academia.

3. CONCLUSION

Zimbabwe's e-readiness survey report does not explain whether in the absence of a national ICTs policy, there were sector specific policies. Furthermore as presented above it is imperative to have a sector specific policy, which will later inform a broader national policy. However, credit should be highlighted for the e-readiness survey for having attempted to break the ice, and provided a parapet upon which a national ICTs policy, e-strategy and e-action will be hinged. There is need to consider non-quantifiable variables, such as poverty and social justice. The other factor as suggested above is the need for Zimbabwe to address political and economic problems obtaining, as this isolation would impact heavily on the need to be interconnected.

4. REFERENCES

Alvares, C. (1992) Science, in: W. Sachs (Ed.) Development Dictionary. London, Zed Books.

- Bethke, J. (2004) Expectations of Modern Media Should be Assessed Realistically: Information and Communication Technologies, *Development and Cooperation*, **31**, 10, 388-389.
- Castells, M. (1997) The Information Age: Economy, Society and Culture. The Power of Identity, Volume II, Oxford: Blackwell Publishers.
- Central Statistical Office (2002) Census 2002: Zimbabwe Preliminary Report. Harare: Central Statistical Department.
- Colle, R.D. (1989). Communicating Scientific Knowledge, in: Campton J.L. (Ed.) The Transformation International Agricultural Research Development, 113-36, Boulder C.O: Lynne Rienner.
- Croteau and Hoynes (2003) Media Society: Industries, Images and Audiences (Third Edition), London: Pine Forge Press.
- Dembowski, H. (2004) Information Society Require Education, *Development and Cooperation*, **31**, 09-13.
- Dietze, C. (2004) Technology Alone Cannot Close the Digital Divide, *Development and Cooperation*, **31**, 05-07.
- Fischer, C. (1992) America's Calling. Berkeley: University of California Press.
- Gono, G. (2004) Monetary Policy: Zimbabwe, Towards Sustained Economic Growth, Harare: Reserve Bank of Zimbabwe.
- James, T. (2001) An Information Policy Handbook for Southern Africa, Ottawa: IDRC.
- Karwatzki, S. (2004) New Media and the Fight Against Poverty: Information and Communication Technologies, *Development and Cooperation*, **31**, 5, 212-213.
- Lerner, D. (1958) The Passing of the Traditional Society: Modernizing the Middle East, New York: The Free Press.
- McLuhan, M. (1964). Understanding Media, New York: McGraw-Hall.
- Melkote, S.R. and Steeves, H.L. (2001) Communication for Development in the Third World: Theory and Practice for Empowerment, London: Sage
- Mansell, R. and Wehn, U. (1998) (Eds) Knowledge Societies: Information Technology for Sustainable Development, Oxford: Oxford University Press.
- Mudhai, O.F. (2004) Researching the impact of ICTs as change catalysts in Africa, *Equid Novi*, **25**, 2, 313-335.
- Murerwa, H. (2004) Zimbabwe 2005 National Budget Statement, Harare: Ministry of Finance.
- Musingizi, B. (2005) Communication Changing Lives, *New African*, June Edition, 38-39.
- Nicol, C. (2003) Information and Communication Technology Policy: A Beginner's Handbook, Johannesburg: APC.
- Obibuaka, L.O. (1983) Agricultural Extension as a Strategy for Transformation, Nasukka: University of Nigeria Press.
- Rhodes Journalism Review (2003) Information, Knowledge and Wisdom, *Rhodes Journalism Review*, **15**, 1-3.
- Rogers, E. (1962) Diffusion of Innovations, New York: The Free Press.
- Van Audenhove (2002). Development and Culture: The Digital Divide, How to Bridge the Knowledge Gap between North and South, Paper presented for Interdisciplinaire lessen Ontwikkeling en Culturen. Katholiek University Leuven: Unpublished.
- World Economic Forum, (2002). Better, Faster, Cheaper: Developing and Leveraging World Class ICT Networks for Social and Economic Advancement, Geneva: World Economic Forum.
- Zimbabwe e-readiness survey report (2005). Information and Communication Technologies: Zimbabwe E-Readiness Survey Report, Harare: Ministry of Science and Technology.

5. ONLINE SOURCES

- Beger, G. (2004) Converse: Whassup with World Summit on Information Society?, *Mail and Guardian online*, 1-3. <http://www.mg.co.za/content/13.asp>
- UNESCO (2003) Communication: From Information Society to Knowledge Societies, 1-2. <http://www.itu.int/wsis/documents/index.asp>