Problematising Development and Poverty in the ICT policy of Malawi

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Abstract

This paper presents a critical analysis of the representation of problems and assumptions for the solutions in the national ICT policy of Malawi. The study employed Carol Bacchi's What's the Problem Presented (WPR) to scrutinise national ICT policy and related documents. The results showed that the national ICT policy main objective was to support addressing threat of worse socio-economic status of country and poverty alleviation. The policy solutions were framed around ICT infrastructure, human capital, industries development and governance. The assumptions were that investing in these areas could support the integration of ICTs in the priority sectors of the economy (mining, tourism and agriculture) and achieve social-economic development. The policy solutions focused more on the supply of technology while downplaying cultural, political and contextual issues. The study signals the importance of articulating real needs of policy beneficiaries during policy formulation.

Keywords: National ICT policy, Problematisation, Critical policy analysis, Malawi
Introduction

The low-income status economies are confronted with social challenges which have been characterised as complex, intractable, open-ended and wicked (Head & Alford, 2015). Complex problems have no obvious solutions and cut across economic sectors which public organisations alone cannot solve (Camillus, 2008; Ferlie, Fitzgerald, McGivern, Dopson & Bennett, 2011; Majchrzak, Markus & Wareham, 2014). Examples of complex problems are lack of basic infrastructure (e.g. road networks and electricity supply), limited access to basic education for the citizens, inadequate health facilities, high levels of unemployment among the employable age group, environmental degradation, impact of pandemics like HIV/AIDS, among others (Ngwenyama, Andoh-Baidoo, Bollou, & Morawczynski, 2006; Walsham & Sahay, 2006). National Information Communication Technologies (ICT) policies are perceived as a guide that can support the application, use and regulation of ICTs in the processes and activities for addressing some of the socio-economic challenges of low-income status countries. While ICTs have the potential to address some of the challenges, there is a need to understand the problems so that appropriate and holistic solutions can be developed to meet the real needs of policy beneficiaries (Ponelis & Holmner, 2015; Walsham, 2013).

National ICT policy stakeholders are engaged in ICT policy formulation process to come up with solutions. The stakeholders include officials from government agencies, international development and financing agencies, private sector organisations, non-governmental organisations, academia, legislators and politicians (Checchi et al., 2012; Labelle, 2005). The stakeholders articulate social problems, establish meaning about the problems and frame policy responses that are appropriate. The stakeholders draw on ICT discourses and understanding of social challenges in society to come up with policy solutions (e.g., processes, programs and laws). However, the perspectives of meaning assigned to ICTs affect the way policy solutions are framed (Kendall, Kendall & Kah, 2006; Yanow, 2007). Other authors have argued that ICTs are not value neutral (Orlikowski & Iacono, 2001; Sein & Harindranath, 2004; Zhang, Scialdone & Ku, 2011). The application and use of ICTs involve cultural, political and economic dimensions which influence the thinking and acting of individuals, organisations and communities (Castells, 1996). Hence, solutions outlined in the national ICT policy policies need to be scrutinised to ensure that the assumptions underpinning the policy solutions meet the needs of the policy stakeholders and beneficiaries.

Problematisation provides a way of thinking about policy problems in the relation to the past and contemporary discourses and social practices in society (Bacchi, 2012; Midgley, 2012). The discourse and practices influence how the policy problems are framed by the policy makers. Therefore, problematisation is appropriate to understand the problems which the national ICT policy attempt to address (Bacchi, 2009). Further, taken for granted ways of presenting problems (e.g. ways of thinking about policy problems becoming common sense and without thinking of alternatives) may be brought to light for policy makers to take necessary actions (Myers & Klein, 2011).

The study was guided by the research questions: How are national ICT policy problems presented over time? What are the justifications for possible policy responses? To answer these questions, the study applied the What’s the problem represented to be? (WPR) (Bacchi, 2009) which draws concepts from Michel Foucault’s work on problematisation (Foucault, 1972; Foucault, 1986). The study analysed the case of Malawi which presented an example of low-income status in Africa. The country took a long period of time (2001-2013) to identify policy problems and formulate its national ICT policy (Makoza & Chigona, 2012). Given the long period of policy formulation, the study considered the period ideal to understand the discourses and practices that shaped the formulation of the national ICT policy. Further, while WPR is gaining popular and used in analysing policies (e.g., Bacchi, 2009; Goodwin, 2012; Midgley, 2012), to the knowledge of the authors, WPR has not been extensively used to analyse national ICT policies. The study aim to address this knowledge gap. Understanding of assumptions in the ICT policy solutions may bring attention to the policy makers on the taken for granted issues in the national ICT policy. The wrong assumptions about the problems can be costly and may lead to inappropriate solutions that may not address the real needs of policy beneficiaries.

Background to the study

National ICT policy is “any public-sector action taken to advance the development of ICT or to promote their use by constituents for the benefit of society” (Cohen, Salomon & Nijkamp, 2002:36). The policy aims to address the development, application, use and regulation of ICT in the sectors and communities.
For instance, the policy may provide guidance in the application and use of ICT in economic sectors including health, education, finance, manufacturing and media (Marcelle, 2000). ICTs are used in processes and programs that support developmental ends. These include public ICT access programs, ICT in schools, ICTs in healthcare, ICT infrastructure programs, digital content development and ICT in transport systems (Heeks, 2008; Heffernan, Lin & Thomson, 2012; Thompson & Walsham, 2010).

National ICT policy, like other public policies, attempt to address issues that are complex, intractable, open-ended and wicked (Head, 2008). Complex problems have been described as those problems that have no clear-cut solutions. The policy stakeholders break down the problems into components that are easy to understand. The policy solutions to the problems can sometimes have unforeseen consequences. In some cases, the problems cut across economic sectors and require policy makers to apply a holistic approach (Head & Alfo, 2015; Majchrzak, Markus & Wareham, 2014). Thus, policy makers may require effective approaches for policy formulation and articulation of social problems.

Policy formulation is the process of identifying problems to come up with solutions (Sidney, 2007). The process fits within the policy cycle that comprises: formulation of laws, policy implementation and evaluation. In the context of this study, policy formulation is viewed as part of the iterative process of policy cycle where social problems emerge in a social context and require new responses. The old solutions to problems can be terminated or revised (Colebatch, 2005). Hence, policy formulation requires an in-depth understanding of the social problems because policy solutions that are not well understood can lead to waste of resources (Bacchi, 2009).

The process of national ICT policy formulation has been challenging in the context of developing countries. The policy formulation challenges include lack of evidence to support understanding of the problems, the problems cut across sectors, limited skilled personnel in technology policy formulation, inadequate financial resources to support the policy formulation process (Adam & Gillwald, 2006; Diso, 2005; Kendall, Kendall & Kah, 2006). Governments in developing countries lack the capacity to collect information related to ICTs and rely on information that is compiled by international development agencies e.g. the International Telecommunications Union and the World Bank. Lack of information affects the quality of decisions and ICT policy solutions (Gillwald, 2010). In cases where there is information, Kendall et al., (2006) noted the lack of information sharing culture in the public organisations. Some of the government officials hold information to retain their jobs in their organisations. Hence, the policy makers have limited access to such information in making policy decisions. Thus, policy decisions and solutions to problems in most cases are not based on evidence.

Some developing countries have no local capacity to develop technology related policies and rely on support from external experts. The developing countries seek support from experts in developed countries or from international development agencies to come up with policy solutions (Eko, 2013). The situation has resulted in over dependency on external support with limited local capacity in government agencies (Adeyeye & Iweha, 2005). In cases where there is external assistance from internal development agencies, the external experts may not fully understand the contextual issues that affect the national ICT policy e.g. culture, social and political norms and values of the developing countries. Consequently, some of the policy solutions are narrow in focus and do not adequately address the key issues of the policy stakeholders and beneficiaries (Kamba, 2013). The government agencies that are responsible for formulation policies have inadequate funding to engage all policy stakeholders (Diso, 2005). Hence, few policy stakeholders are engaged in policy formulation to provide input for the policy solutions.

Despite the summarised challenges, developing countries continue to prioritise national ICT policies (e.g., about 85% of African countries had formulated national ICT policies (ITU, 2012)). It is interesting to understand how the problems and solutions were framed and presented in the national ICT policies. Understanding the problems in the policies can produce information that can help policy makers to focus on real needs of policy beneficiaries and realisation of socio-economic development. This study aims to address part of the call for problem-questioning using the WPR approach in policy analysis studies (Bacchi, 2009).

**Theoretical perspective to the study**

The study used the concept of problematisation from Critical Social Theory and the work of Michel Foucault in particular. Problematisation is widely used as an analytical concept in policy analysis studies.
(see Bacchi, 2000; 2009; Webb, 2014). The concept of problematisation was selected to analyse how the problems and solutions were presented in the national ICT policy. The concept was appropriate because it supports critical scrutiny of text in policies to highlight issues of power, domination and biases in knowledge claims (Goodwin, 2012; Wodak & Myer, 2015). Thus, a policy analyst can understand policy problems in two perspectives (a) policy problems in statements as truth claims presenting the social challenges (b) policy problems as responses to social challenges.

Problematisation is described as a way of thinking about social problems or conditions that are rendered problematic in a social system (Bacchi, 2000; Bacchi, 2012). Social problems can be examined by looking at the discourses, practices and thought processes that are perceived to cause problems (Bacchi, 2012; Foucault, 1984). The focus is not on causality but conditions that give rise to social situations known as conditions of possibilities (Foucault, 1980). Problematisation can be applied to understand how and why certain situations of social processes become problems and a historical process of producing discursive objects related to the problem. The social processes can highlight knowledge, political structures, laws and regulations of social practices while the discursive object can be analysed to highlight how discourses are treated over a period of time in a social system. Taken for granted assumptions in the discourses and their operations can be revealed (Bacchi, 2012; Foucault, 1991).

Problematisation is useful to highlight historical analysis of discourses or objects and trace their relations as connections, encounters, supports, blockages, the play of forces and strategies (Foucault, 1980). The analysis of practices is demonstrated in “what is said and what is done, rules imposed and reasons given, the planned and taken for granted meet and interconnect” (Foucault, 1991:75). The practices are embedded in everyday activities which inform the perceptions, judgement, imaginary and activities of actors or subjects in a social system (Bacchi, 2012). Practices shape the behaviour of individuals and their relations with others in a social system. The practices extend beyond the use of language to include the constitution of objects which the actors speak of in a discourse (Foucault, 1980). This may relate to public policies that enable or limit the actions of policy stakeholders in policy network or subsystem (Fischer, 2003).

Policies are closely related to practices (Bacchi, 2000; Ball, 1993; Colebatch, 2005). In this view, text presented in the policy documents can be considered as the prescriptive instructions that guide what people do and support rules, opinions and actions of policy stakeholders (Ball, 1993). Policy documents can be considered as objects of practice that are designed to be read, learn, reflected upon, tested out and constitute the everyday conduct of policy stakeholders. The practices can be examined using the problematisation approach (Bacchi, 2012).

Bacchi (2009) proposes an approach for analysing problems represented in a policy “what the problem represented” (WPR). The approach draws concepts from work of Michel Foucault on discourse and power/knowledge (Foucault, 1972; Foucault, 1980). WPR concentrates on policy as discourse and policy text can be used to identify and deconstruct said/unsaid discourses; and highlight issues of power, privilege, subjugation and hegemonic discourses (Bacchi, 2012). The approach concentrates on developing an understanding of how problems that a policy attempts to address are framed and enacted. The policy is reflected upon, its formation and expected actions. The policy is scrutinised to understand the premise and the effects of the representation of problems using six questions summarised as follows:

- What’s the problem presented to be in a specific policy?
- What presuppositions or assumptions underlie the representation of the problem?
- How has this representation of the problem come about?
- What is left unproblematic in the representation of the problem? Where are the silences?
- What effects are produced by the representation of the problem?
- How/where has this representation of the problem been produced, disseminated and defended?

Discourses and practices that frame the way problems and solutions are presented in the policy documents can be scrutinised using the six questions. Since the discourse and practices emerge in society over a long period of time, themes presented in the policy can be traced from other materials that form part of the discourses. These include text from press releases, political speeches and reports. The processes on interrogating text using WPR approach can support understanding of power, discourses, critique and emancipation agenda for policy as discourse (Bacchi, 2000; Webb, 2014).
Research methodology

The objective of the study was to analyse how problems were presented in the national ICT policy and interrogate the justifications of the solutions in the policy. The study used qualitative research approach (Bowen, 2009). Secondary data was used which include copies of the national ICT policy documents and national development plans. This approach was consistent with similar studies on policy analysis that have used secondary data (see Bacchi, 2015; Midgley, 2013). The secondary data presented records of events, activities and agreements among the policy stakeholders who were engaged in the national ICT policy process. Further, the documents supported the researchers to trace discourses, practices and conditions that influenced the construction of problems that the national ICT policy attempted to address (Bacchi, 2009; 2011; 2015). The documents were sourced from Malawi Government ministries and departments. The researchers purposefully selected materials that were (a) related to the ICT national policy and national development (b) produced as part of policy development process. The policy development process in Malawi began in 2001 and the first draft of the policy was produced in 2003. The policy document was revised and subsequent versions were produced in 2006 and 2009. The final version of the policy and its implementation plan was released in 2013 (Makoza, 2017). The sample of the documents included drafts of the national ICT policy and national development plans covering the period 1998 to 2013. Table 1 summarises the documents used in the study.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Year</th>
<th>Type of document</th>
<th>Source</th>
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<td>Communications Policy</td>
<td>1998</td>
<td>Sector policy</td>
<td>Ministry of Information</td>
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<td>Rural Telecommunication Policy</td>
<td>2002</td>
<td>Sector Policy</td>
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<td>2003</td>
<td>Sector policy</td>
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<td>National ICT for development policy</td>
<td>2006</td>
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<td>NICTP-2009</td>
<td>National ICT policy final draft</td>
<td>2009</td>
<td>Sector policy</td>
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<td>National ICT policy</td>
<td>2013</td>
<td>Sector policy</td>
<td>Ministry of Economic Planning</td>
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</table>

Table 1. Summary of documents used in the study

The study used content analysis to interpret and organise the textual data (Miles & Huberman, 1994) and the six questions for WPR approach (Bacchi, 2009). Data analysis began with reading the documents and noting issues that were important and related to the aim of the study. The documents were read several times. The first step was assigning codes to the text in the documents. The second step was grouping the codes into categories. The third step was grouping the codes into themes (Miles & Huberman, 1994). The themes included ICT infrastructure, human capacity, industry development and governance (refer to appendix 1). In addition, practices related to themes were identified and this step was followed by the highlighting the premise of the discourses. Problems related to the practices and discourses for the themes were identified. The proposed solutions to the problems were also noted and assumptions for the solutions.

The six questions for what’s the problem presented were appropriated and used to explain each theme. The questions were as follows. What’s the problem presented in the national ICT policy? The presupposition or assumptions of the problems around the themes were interrogated using the following question: What presumption or assumptions underpinning the representation of ICT infrastructure, human capacity, industry development and government problems? The problems were traced to show
how they emerged from the events and practices. The following question was pursued: How has the problem of ICT infrastructure, human capability, industry development and governance come about? The study analysed the presentation of the problems and solutions for the policy. The following question was analysed: What is left unproblematic, silent and though different for ICT infrastructure, human capacity, industry development and governance in the national ICT policy? Discursive and subjectification are considered in the representation of the problems. The discursive effects on the way the concepts related to the problems are talked and acted upon. The various positions of actors in the representation of the problems. The question following was explored: What effects are produced in the representation of ICT infrastructure, human capacity, industry development and governance in the national ICT policy? The processes of representation of the problems are analysed to indicate events or means through which the problem is communicated to the policy stakeholders. The premise of the solution to the problems are examined using the question: How has the representation of ICT infrastructure, human capacity, industry development and government in the national ICT policy has been produced, defended, disseminated? The process was iterative. The final stage was writing the report. The results were presented focusing on problematising ICT infrastructure, human capacity, industry development and governance.

Summary of findings

This section presents a summary of discourses that framed the problems presented in national ICT policy and the critique of the assumptions or premise of the policy solutions. The analysis concentrated on tracing of concepts, events and practices that led to the conditions that were constituted as problematic. The problems highlighted in the national ICT policy were centred on poverty and economic performance. These concepts were explored drawing on the discourses that shaped the presentation of the problems in the policy.

The national ICT policy was framed around the role ICTs in supporting socio-economic development and improving the well-being of citizens. Part of the policy addressed issues related to poverty and poor economic performance of the country that was persistent since the 1990s. Poverty was lack of basic resources for people to meet their daily basic needs including food, clothing and shelter. People living in rural areas were most affected because they had no stable sources of income. The majority of the rural population depend on seasonal farming and casual labour to meet their daily needs. In most cases, the rural dwellers did not have the disposable income to acquire and access to ICT services that were essential for supporting economic and social activities. Hence, rural and remote dwellers had limited economic opportunities, access to information and public services like their counterparts in urban centres.

Malawi is landlocked where most of the materials that are used in production and provision of services are imported. The country depends on agriculture as the main source of economic income through exports. The fluctuation prices at world markets and severe weather conditions in the early 1990s had affected agriculture production and contributed to the poor economic performance:

“(…) the economy of Malawi has not performed well because of the negative impact brought about by various challenges including those associated with the level of ICT development. As a result, the economy is characterized by high dependence on the agricultural sector, low growth rates, coupled with a balance of payment difficulties, poor physical, communications and social infrastructure development and problems associated with heavy debt burdens and huge public and social expenditure budgets” (NICTP-2006).

As highlighted in the statement, the level of ICT development was low and affected other economic sectors e.g. manufacturing and services sector. The economic sectors could not compensate the deficit in the performance of the economy due to inefficiencies and low productivity. The country depended on loans from international financing and lending institutions for its national budget and development activities. The Government of Malawi was looking at options for addressing poverty and improving the poor performance in the economic sectors. The situation led to the development of national development strategies e.g. Vision 2020 of 1998, Poverty Alleviation strategy of 2002 and sector policies to improve the situation. The government considered Information and Communications Technology as a panacea for some of the challenges of poor economic performance and poverty. The focus was on modernising using ICT:
“Malawi, like other countries, is convinced that her predominantly agro-based economy can rapidly grow and diversify through participation in the information society. In order to fully benefit from the information revolution, Malawi needs to modernise various sectors of her economy using ICTs” (NICTP-2006).

ICTs were to be integrated into the economic sectors (e.g. mining, tourism and agriculture) and support the competitiveness of the country by being integrated into the global market. The idea of developing the national ICT policy was to address how the ICTs can be developed, applied and regulated in supporting development activities. Further, there were fears that without such policy the country will not be part of the global economic markets and not being able to participate in international trade which was crucial in generating income that was used for financing the national budget and delivery of public services.

The development strategies e.g. Vision 2020 of 1998 and sector policies e.g. Communications Act of 1998 highlighted discourse on development concentrating on technology and markets. In this context, technology was related to the need for the country to emulate the advanced economies in adopting ICTs to support economic activities and achieve high productivity and efficiency. Markets were related to promotion of liberalisation, privatisation of state-owned telecommunications companies and deregulation to allow the private sector organisations to participate in the ICT sector. Thus, statements on technology and markets supported the ideas on modernisation discourse for development.

They focus the policy was on technology and ICT investment in the ICT sector. The practices in the ICT sector showed that private sector organisations invested in ICT services mostly in the urban areas. The rural areas were marginalised because of lack of demand for the ICT services and it was challenging for the organisations to generate the return on investment. The situation led to high cost of services and most of the rural areas did not have access to ICT services. Hence, the government felt that it was its responsibility to improve the plight of the people living in rural and concentrated on access to ICTs and alleviate poverty.

Having identified the concepts that formed the basis for the need to develop national ICT policy, the subsequent section looks in details the discourse, practices, the framing of policy problems, solutions and assumptions for the problems. The analysis focused on how ICT infrastructure, industry development, human capacity and governance were problematised

**Problematising ICT infrastructure**

ICT Infrastructure includes telecommunications networks, hardware and software; and skilled personnel that was necessary for supporting economic activities. The presence of ICT infrastructure was associated with sector productivity and economic growth. The assumption was that availability of ICT infrastructure could support economic and social activities and in turn lead to the well-being of citizens and reduce poverty. Some of the anticipated outcomes from ICT infrastructure investments were job creation, business efficiency and productivity, skills development and supporting trade. Hence, the national ICT policy responses focused on ICT infrastructure as one of the policy objectives “To develop the ICT Infrastructure in order to improve access and delivery of services as well as reduce communication costs.” (NICTP-2013).

The country was facing challenged related to ICT infrastructure including the high cost of ICT services, limited access to information and disparities in ICT access between urban and rural. Most of the ICT services (e.g. internet connection to international gateways), hardware and software products were being imported and the cost of acquiring the ICT services was high. In some cases, business organisations did not integrate the ICT because of the high cost of ICT services and lack of knowledge on ICTs: “Lack of awareness of ICT and e-services and their potential. Awareness programmes on ICT and ICT-based services have not been implemented on a large scale in Malawi due to a lack of coordination” (NICTP-2013).

ICT services were mainly available in urban centres because these areas had the basic infrastructure to operate ICTs e.g. electricity and accessible roads. Further, ICT investment in urban areas had a steady demand for ICT services that would guarantee a return on investment the telecom operators and other investors. The government solution to address the absence of ICT infrastructure were to the liberalisation of the telecommunications sector, privatisation of the state-owned telecom operator, promote market entry of new telecom operators and offering tax incentives on imports for telecommunications equipment.
Enabling the economic environment was the status of the economic sectors that was conducive to invest in ICTs and support businesses through formulation of laws and regulations, supporting market entry in the telecommunication sector, liberalisation of the ICT sector where there was deregulation of state control over the telecom sector, privatisation of state-owned telecommunication and broadcasting organisations to allow private investors to participate in the telecommunications sector. In addition, the government reduced taxes on imports for ICT equipment to support ICT infrastructure investment because most of the ICT equipment and expert services were sourced from outside the country.

The solutions to the problems ICT infrastructure was premised around technology and modernisation discourses. There was a belief that modernising the economy where ICT infrastructure investments are made to emulate countries that have higher economic status could address the challenges:

“Expansion and modernisation of the network with new technology will make it possible for the prices charged for basic telephone services to be lower in real terms (...) To achieve this aim, it is necessary to accelerate the rate of investment in infrastructure, to focus the efforts of service providers more closely on the needs of users and to re-organise the existing institutions in the sector...” (CP-1998)

The policy solutions to the problems of ICT infrastructure were missing details on how the basic infrastructure that is required to operate ICTs in the rural and remote areas would be addressed. The solutions lacked details on energy supply, demand for the services in rural areas and disposable income for rural households. A holistic view of the ICT infrastructure could note the necessary resources required for ICT infrastructure investments in rural areas. For example, the policy solutions lacked details on how the policy was harmonised with other policies related to basic infrastructure such as electricity and road networks to ensure that there is no duplication of efforts and solutions that reflected the local context conditions. The policy solutions to ICT infrastructure concentrated on supply of ICT e.g. ICT infrastructure investment in the view of providing services. There were limited clarity on how demand for the ICT services would be achieved to guarantee a return on ICT infrastructure investment of the telecom operators wishing to invest in rural areas. In addition, the majority of rural communities had seasonal income as they largely depended on subsistence farming and casual labour. The policy solutions were missing details on how rural household’s income status would be improved so that they could use the ICT services.

**Problematising human capacity**

Human capacity relates to the ability of people to use ICTs in their social and economic activities and improve their lives or organisations. In this view, human capital was considered necessary for the policy to ensure that providers of ICT services and public organisation had the skills to integrate ICTs in the delivery of services. The country had a shortage of ICT professionals who could support the implementation of ICT projects for modern technologies. The existing number of ICT professionals could not address all the challenges related to ICT because of inadequate skills. Hence, public and private organisations relied on experts from outside the country.

The country had few ICT professionals that could support the implementation of large ICT programmes. The government agencies responsible for ICT programs relied on foreign experts. In addition, there were vacancies in the public services due to staff turnover because of low remuneration. Pandemics e.g. HIV/AIDS also affected the public sector in terms of loss and productivity of the personnel. The changes were related to health can be related to health discourse where it is perceived that healthy individuals can effectively use ICTs in social and economic to improve productivity and efficiency.

The problems presented in national ICT related to human capacity also included lack of leadership, limited skills and inadequate human resources. However, the solutions to leadership challenges had no clearly defined position within the government hierarchies that supported awareness, motivating other stakeholders to priorities the application ICTs. The solution for skilled ICT professionals was also not adequately addressed. Although there were institutions that offered ICT training programs, not all the trained ICT professionals were recruited and retained the public sector because of budget constraints and low remuneration in the government departments as compared to the private sector. Consequently, the ICT professionals preferred careers in the private sector and abroad: “Brain-drain in the ICT Sector due to low remuneration packages. Essentially, the brain-drain is at two levels, namely; from Malawi to
other countries especially within the SADC region and from the public sector to the private sector” (NICTP, 2006). ICT championing and human capacity development were proposed solutions for addressing the challenges of human capacity. The assumptions were that the national ICT champion will inspire policy stakeholders in supporting the decisions and activities of the national ICT policy. However, there were missing details on the specific details on the position within government was responsible for this role and the specific government department. The national ICT policy champion required a legal backing to ensure that the role had the mandate in executing the activities for national ICT policy.

Another assumption was that promoting of ICT awareness among stakeholders would support address the challenges of human capacity. The details on how awareness was to be achieved were mainly through events e.g. ICT fairs and exhibitions. While these activities were worthwhile to raise awareness on ICTs, there were no details on how often the activities would be conducted, the expected groups that would participate in the activities and the means for raising awareness and assessing the impact of the events. The activities were usually a one-off event in a year and may not accommodate all the stakeholders. While such arrangements exhibit preferences to those from the supply side of ICT, there were missing details on awareness of ICT for the people living in rural areas. Thus, the scope of the awareness was more focusing on the providers of services and ignoring the users of the ICT services. The national ICT policy beneficiaries which included men, women, the elderly and people with special needs in rural and underserved areas where not included in the proposed solutions for human capacity. The policy beneficiaries were part of the ICT ecosystem for example in terms of the ICT services to be developed that were relevant to their needs and also part of developing their capacity to utilise services and sustaining the demand for ICT services.

There were assumptions that some of the problems of human capacity were to be addressed through the private sector organisations. In this case, implementation of ICT programs would rely on the expertise of ICT professionals in the private sector. However, such arrangement did not consider the commitment of the stakeholders. The ICT professionals from private sector organisations have their own priorities in their organisations and limited knowledge on the government processes and procedure because the way private sector organisations work is different from public service organisations. There was also a limited consideration of knowledge transfer from the external parties in terms of developing human capacity within the ICT policy implementation agencies.

Problematising industry development

Economic sectors and industries that provide services and products to other organisations and consumers e.g. finance, manufacturing, tourism, health and educations are crucial in supporting socio-economic growth. Problems related to industry development were centred on low adoption of ICT use for production and services in the economic sectors. There was a low adoption of ICT in manufacturing and agriculture as main economic sectors that were exporting products to the external markets. The organisations in these sectors relied on manual systems and did not integrate ICT in their activities because of the high cost of the ICT services. The staff of organisations operating in these sectors were not aware of the potential roles of ICT in supporting business operations. There were few organisations that participated in the global market using ICTs and the situation affected the sectors where there were low volumes of exports to international markets.

The policy responses to the industry development problems were to promote ICT infrastructure investment in the ICT sector as a provider of ICT services to other economic sectors. Priority sectors were identified which included mining, tourism and agriculture. There were also proposal for ICT investment in the priority sector to improve production and increase the volumes of exports: “It will also promote production of exportable ICT products and services, encourage economic diversification in areas such as tourism, financial services, medical research, and telecommunication and create new jobs” (MDGS-2012).

Mining sector deals with investment in the exploitation of minerals deposits as a way of diversifying the economic base of Malawi which has been agricultural based. Tourism sector attracts tourists from Europe, America and Canada and offers hospitality services such as accommodation, leisure and recreation. Agriculture focuses on subsistence farming for the production of crops and animal for household
consumption and commercial farming concentrates on the production of cash crops e.g. sugar, tea, cotton and tobacco which are sold to foreign market.

Again the proposed policy solutions were rooted in the technology and modernisation discourses. It was assumed that ICT infrastructure investment in the ICT sector will have a trickle-down effect in the priority sectors. That is if there were ICT services being offered in the ICT sector the organisation in the mining, tourism and agriculture sectors would adopt ICTs. However, there was less clarity on how the issues of awareness of knowledge on how to integrate ICT in the priority sectors. Further, issues of skills development related to ICT in the priority sector were not adequately addressed. In addition, issues on potential job losses if ICT were adopted as most of the production depend on manual labour. Ethical issues that may emerge in the priority areas have been left out. Technology adoption has implications of culture and social values that exist in the sectors. The solutions were leaning more towards private business organisations and sector structures without considering the cultural implication in the ICT sectors.

While cost has been identified as the main inhibitor of ICT integration in economic sectors, the key assumptions in addressing cost of ICT services was that once there are more ICT services providers the cost of the services will be lower. The assumption can be problematic if the actual demand for the ICT services in not natured, stimulated and sustained. Details on how the ICT services will be promoted, regulated and ensure that the demand is sustained considering that ICT investment in the private sector is driven by profit. Details on use of regulatory instruments such as subsidies, price control and universal obligation are limited. Furthermore, the issues related to regulation of market completion and fair pricing of services are not highlighted in the proposed solutions

Problematising governance

Governance relates to the efficiency in the delivery of public services to the public and private organisations using ICTs, promoting engagement of citizens in government decision that affects them. Further, governance is concerned with the protection of citizens and cooperation with other governments at the regional and international level to address issues related to ICTs.

One of the problems related to governance was limited use of ICT in the delivery of public services: “Public entities, therefore, have not been encouraged to ensure that their services are available online and electronically” (NICTP-2013). This problem is related to lack of human capacity, inadequate resources and lack of awareness on ICTs within government agencies. There was shortage of staff in the implementation agencies to identify, develop and support ICT systems that address the challenges in the operation of government departments. Another challenge was constraints of budgets to recruit personnel, procure ICTs (networks, hardware and software). As a result, most of the public services were based on manual systems which affected the delivery of public services. Although there are efforts to deliver public services online, most of the ICT services projects are conducted in isolation without considering what already exists and how the efforts can be integrated with other public services. The limited integration is attributed to poor coordination within the government agencies.

The policy solutions for challenges in the delivery of public services were supporting ICT investment and use of ICT in the government departments to support delivery of public services online. The assumptions were that the government would reduce the costs of delivering public services to the citizens and business organisations using ICTs. Nonetheless, the solutions did not consider the ICT staff that would be required to support the online services. As noted earlier that most government departments were understaffed. Further, the delivery of public services online may require addressing issues of privacy, cyber security and data protection which the country had not enacted laws to support enforcement of security standards. The proposed solutions for E-Government were missing details on how the existing ICT systems in the different departments may be integrated to facilitate information sharing and how different organisational cultures within the government departments would be supported.

The government proposed collaborations with regional and international development agencies through participation in international forums, signing treaties and collaboration with donors on specific policy programs. There were emerging issue that government required to collaborate with new partners. The solution for “cyber-crimes, digital frauds and terrorism” (NICTP, 2013) were to establish new collaborations and promote standards. The assumptions were addressing some of the ICT challenges that
require international and regional support and effort. It was necessary for the government to also consider the interests of the regional and international partners to ensure that the local needs were prioritised. It was necessary for the collaborations to support the local interests, develop local capacity and ensure that collaborations did not lead to over-dependence on the partners.

Another problem was limited consideration of local realities when participating in regional and international collaborations. For instance, government officials signed international treaties without consultations with the stakeholders at the local level and sometimes the treaties were not in line with the cultural values of the country. Such approach led to problems of buy-in of the policy programs that emerged from the collaborations.

**Summing up the problematisation of national ICT policy**

In summary, the key themes that led to consideration of developing the national ICT policy were the poverty and economic growth emerged from technology, economic and development discourses. From these discourses, the discursive practices were limited ICT investment in rural areas due to the high cost of ICTs, relying on external experts in the public services due to limited human capacity, the national ICT policy which was framed around ICT infrastructure, human capacity, industry development and governance.

Recalling the concept of discourse as statements or truth claims that structure the way actors think, say and act in a social context. Discourse as policy which presents the practices that emerge from the policy text is useful in understanding assumptions and presuppositions on problems that a policy attempts to address. In this study, the national ICT policy was attempting to address the issues related to development and poverty. The national ICT policy responses were rooted in modernisation discourse where the country aspire to transform its socio-economic development from agriculture-based economy to a technology-intensive based economy. The transformation process was based on how other advanced or developed economies had progressed. The role of ICT policy in transformation process highlighted targets such as wealth creation, innovation and education. The government considered other discourses including technology, economic and health discourses as part of the means for achieving transformation.

The identified discourses emerged from a number of sources including the national development agendas documents (e.g., Vision 2020 and Poverty Alleviation Strategy) and international development agencies (e.g., The National Information and Communication Infrastructure framework of United Nation Economic Commission for Africa). This can lead to a point that the initial development of the first draft of the policy had tenets for modernisation that were adopted from other development strategies. The ideas from other discourses were privileged in developing policy solutions while local perspectives to the solutions were not fully considered. For instance, the NICI framework put forward the ideas of the role of ICT in relation to development as follows:

“NICI provides the framework within which ICTs are mainstreamed into the national planning process in order to facilitate the achievement of national and sectoral development priorities and objectives (...) the NICI, therefore, represents a long-term strategy to develop infrastructure, human capacity, content and applications as an integral part of overall national development.” (ECA, 2007).

While the key emphasis is on ICT infrastructure, human capacity and applications, other issues that may arise as a result of ICTs were not considered. For example, the NICI framework did not consider the existence of other national development agendas. Further, there was no indication on how the framework considered the existing cultures in the public organisations and society; the framework did address the potential unintended consequences of ICT. For example, job losses and deskilling of workers in organisations that may adopt ICTs to replace manual systems. The framework was also silent on issues related to privacy, data protection and computer-assisted crimes. Hence, the country did not implement laws to address information technology issues as part of the ICT policy.

Whilst the identified discourses informed the ICT policy to address poverty, the local views of poverty seems to be obscured by focusing more on technology and ignoring the local understating of the problems of the policy beneficiaries. For example, in an agriculture-based economy the following questions can be raised: what are the values of the people? What is the culture of the people and how technology fit in their social and economic activities? Further, the ICT policy focuses on what the policy beneficiaries do not have e.g. ownership and access to ICTs. There was limited recognition of the non-technology resources
that exist in the local communities to support the ICT infrastructure investment and utilisation. The policy statements seem to outline part of the needs of the policy beneficiaries e.g. low cost of accessing the ICTs and ICT skills: “Low levels of education resulting in high illiteracy rate that makes it difficult to implement ICT programmes particularly amongst women, youth, the elderly and other disadvantaged groups” (NICTP, 2013). Nonetheless, the details on addressing issues of basic infrastructure (e.g., electricity in rural areas), sustainability of ICT access initiatives and promoting ICT access and use of services were missing. Table 2 in Appendix 1 provides a summary of the problematisation of national ICT policy.

Reflection on WPR questions

This section discusses the findings from the analysis of how problems of poverty and development were presented in the national ICT policy of Malawi. An attempt is made to answer the six questions for WPR approach. These are summarised as follows.

(a) What’s the problem presented in the national ICT policy?

The analysis revealed that the national ICT policy of Malawi attempted to address the challenges of development and poverty. The problem of poverty was related to individual’s capacity to meet daily needs such as food, clothing and shelter. Development was conceptualised as emulating the standards of living for advanced economies where technologies are adopted and used in social and economic activities. The government of Malawi believed that integration of ICTs in economic sectors can lead to productivity and transformation of the country.

(b) What presumptions or assumptions underpinning the representation of ICT infrastructure, human capacity, industry development and governance problems?

The assumptions and presuppositions represented in the problems of poverty and development revealed the government intentions to promote adoption of ICT through ICT infrastructure, human capacity, industry development and governance. Thus, the major assumption was that promoting adoption and access of ICT in organisations and communities would improve productivity and efficiency to support creating opportunities for individuals, organisations and communities. In addition, there were assumptions that developing the ICT sector can lead to better support of other economic sectors in delivering of services in private and public organisations using ICTs.

(c) How has the problem of ICT infrastructure, human capability, industry development and governance come about?

The concepts of development and poverty in the context of Malawi were rooted in social, political transformations. The country changed its political system from one party state to multiparty democracy. The change in the political system led to changes in government control over economic sectors activities and promotion of participation of stakeholders in government decisions. The idea of Vision 2020 brought together government, professionals and stakeholders to formulate a national development strategy. The Vision 2020 considered technology, globalisation and market reforms as means that could address some of the challenges of poverty and under development economic status. From the strategy emerged the need for national ICT policy to guide the use and development of ICT and the policy themes can be categorised into ICT infrastructure, human capacity, industry development and governance (refer to appendix 1).

(d) What is left unproblematic, silent and though different for ICT infrastructure, human capacity, industry development and governance in the national ICT policy?

The views on development and poverty were more external focus than the local meaning and understanding of policy beneficiaries. Development and poverty were viewed based on how the country’s economy performed from the global perspective where it was given the status for lacking resources, poor industry performance and limited integration to the global market using of technology. Hence, addressing the problems development and poverty in the national ICT policy focused on external views. The emphasis on the policy solutions was for the country to be part of the global market, access to ICT and information; and improving on production and efficiency in economic sectors. While the proposed solutions had merit in their own right, the solutions neglect the importance of local values, cultures and real choices of the people and existing social arrangements that sustain their well-being and how ICT can
fit in this context. Further, the policy solutions were silent in the unintended consequences of ICT adoption in organisation and communities e.g. job losses as a result of technology adoption, changes in culture, deskillling of those with specialised skills, privacy issues and ethical issues as result of ICT adoption. The ICT policy did not indicate how unintended consequences can be mitigated.

(e) What effects are produced in the representation of ICT infrastructure, human capital, industry development and governance in the national ICT policy?

The current representation of the problem and solutions stand to benefit the elite and those who already have knowledge about ICTs and can perpetuate marginalisation of those in rural areas where the majority reside. The current understanding of the policy solutions does not consider real needs of the policy beneficiaries that have no basic recourses, knowledge and capacity to acquire and sustain the use of ICTs in their social and economic activities. The rural dwellers had unreliable and seasonal income to acquire ICT and services unlike their counterparts in urban areas that had steady income. There was need to revisit the issues of IT skills and sustainability as the current ICT policy solutions to the problems of poverty and development are skewed towards supply side of ICT with limited articulation of demand side issues of ICTs.

(f) How has the representation of ICT infrastructure, human capacity, industry development and government in the national ICT policy has been produced, defended, disseminated?

The government of Malawi was the custodian of the national ICT policy and had the responsibility for the formulation and implementation of the policy programs and processes. The need for formulation of the national ICT policy emerged locally during the development of the national development agenda called Vision 2020 in 1996. However, the national ICT policy formulation did not commence until 2001 partly because of lack of capacity and resources to support the policy formulation. The national ICT policy formulation began as part of the African Information Society Initiative of United Nations Economic Commission for Africa. Resources were supplied and experts were hired to support the Malawi government in developing the national ICT policy. The policy was developed using a blueprint for Nation Information and Communication Infrastructure framework. However, the framework was not scrutinised to reflect the realities and context of Malawi. In a way, the policy was external oriented and the position of government to question the assumptions of the framework was hindered by lack of resources, capacity and experience in developing technology policies. The situation could be disrupted through critical evaluation of the policy as issues emerged from both the supply and demand of the ICTs. The policy makers and policy beneficiaries could have engaged in debates that could highlight what was missing in addressing the challenges of poverty and development in the proposed solutions in the national ICT policy.

Conclusion

This paper was set out to analyse how the problems of development and poverty were presented in the national ICT policy of Malawi. The study attempted to unravel the justifications for possible ICT policy responses. The themes for poverty and development were the basis for the problems framed in the in the national ICT policy. The problems presented in the national ICT policy were framed around ICT investment, human capacity, industry development and governance. The problems were presented through the discourses on technology, economy and modernisation. The ICT policy responses focused more on supply-side of ICTs and aligned to external discourses. The policy responses or solutions to the social problems lacked details on local issues that addressed the real needs of the policy beneficiaries in rural communities to alleviate poverty and improve their well-being.

Extant literature point to a similar position on the role of ICT in addressing poverty and supporting social economic development (Sein & Harindranath, 2004; Zheng, 2009). The studies point out views on ICT infrastructure, global markets, liberalisation, market deregulation, privatisation in the context of developing countries. However, others have question such approach to development and addressing of poverty (Avgerou, 2010; Heeks, 2008; Thompson & Walsham, 2010; Zheng, 2009). The authors question the simplistic notion that ICT investment in developing countries can follow a linear and predictable model where developing countries will leapfrog some stages of development. The authors suggest the consideration of local context issues such as culture, politics and social structures. This study takes the debate further to demonstrate the understanding of how problems are and solutions are presented in the
ICT policies which have been neglected in the debate (Thompson & Walsham, 2010). The key contribution of this study was on highlighting the taken for granted issues and in-depth understanding of social problems and solutions for development and poverty in national ICT policy. The study showed that the ICT policy solutions did not address adequately the real needs of the policy beneficiaries but focused on external view of development and poverty. Further, the study add critical theory informed studies conducted by scholars from the developing countries. Often studies on ICT policy studies are conducted by hired experts from international development agencies from the developed countries. The study addresses the part of the paucity of critical studies on ICT policy which have been acknowledged to be scarce (Gillwald, 2010). The study serves to inform policy makers in providing insights on issues that are often taken as given when developing ICT policy solutions to social problems. The study demonstrate discourses that were privileged that required further scrutiny (questioning the motives and assumptions) to match with local needs e.g. application of frameworks from international development agencies.

The study is cautious of generalising the findings but proposes a further research for analysing national ICT policy in other countries in Africa. A good point could be countries that did not use the NICI framework in formulating their national ICT policies e.g. Botswana, Kenya and South Africa. The findings from such studies can be compared with the current study to enrich our understanding on the social problems and ICT policy solutions.

**Appendix 1**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>ICT infrastructure</th>
<th>Human capacity</th>
<th>Industry development</th>
<th>Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practices</td>
<td>Limited investment in ICTs</td>
<td>Relying on external experts</td>
<td>Limited ICT integration</td>
<td>Uncoordinated delivery of public services</td>
</tr>
<tr>
<td>Importing ICT products and services</td>
<td>Braid drain in public service</td>
<td>Low volumes of exports</td>
<td>Collaboration at regional and international on development</td>
<td></td>
</tr>
<tr>
<td>ICT investments in urban centres</td>
<td>Loss of staff due to pandemics</td>
<td>Low productivity scores</td>
<td>Ratification of regional and international treaties</td>
<td></td>
</tr>
<tr>
<td>Discourses</td>
<td>Technology discourse</td>
<td>Development discourse</td>
<td>Technology discourse</td>
<td>Technology discourse</td>
</tr>
<tr>
<td>Modernisation discourse</td>
<td>Health discourse</td>
<td>Economic discourse</td>
<td>Development discourse</td>
<td></td>
</tr>
<tr>
<td>Problems</td>
<td>High cost of services</td>
<td>Lack of leadership</td>
<td>Inefficiency in the industries</td>
<td>Inefficiency in delivery of public services</td>
</tr>
<tr>
<td>Limited access to information</td>
<td>Limited of skills</td>
<td>High cost of ICT services</td>
<td>Limited use of ICT in public services</td>
<td></td>
</tr>
<tr>
<td>Urban and rural divide</td>
<td>Lack of human capacity</td>
<td>Low participation in global markets</td>
<td>Few public services available online</td>
<td></td>
</tr>
<tr>
<td>Solutions</td>
<td>Promote ICT infrastructure investment</td>
<td>Support ICT strategic leadership</td>
<td>Promote ICT sector development</td>
<td>Enhance public services and international collaboration</td>
</tr>
<tr>
<td></td>
<td>Human capacity development</td>
<td>Support ICT development in priority sectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumptions</td>
<td>Enabling environment</td>
<td>Policy championing</td>
<td>Trickle down effect for ICT investment</td>
<td>ICT or online services can improve public services delivery</td>
</tr>
<tr>
<td>Market entry</td>
<td>Awareness in ICTs</td>
<td>ICT investment will bring down cost of services</td>
<td>Efficiency in delivery of services through e-Government</td>
<td></td>
</tr>
<tr>
<td>Liberalisation</td>
<td>Support from private sector</td>
<td></td>
<td>International standards support globalisation</td>
<td></td>
</tr>
<tr>
<td>Privatisation</td>
<td>Tax incentives</td>
<td>Legal mandate for leadership</td>
<td>Basic infrastructure to operate ICTs</td>
<td>Differences of ICT systems in departments</td>
</tr>
<tr>
<td>Basic infrastructure</td>
<td>Continuity of roles</td>
<td>Skills development to support use of ICT services</td>
<td>Legal frameworks supporting the departments</td>
<td></td>
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<tr>
<td>Demand for services</td>
<td>Knowledge transfer from experts</td>
<td>Potential job losses due to mechanisation</td>
<td>Different cultures in different departments</td>
<td></td>
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<tr>
<td>Disposability household income in rural areas</td>
<td>Consideration of ethical, cultural and social issues</td>
<td></td>
<td>International development agencies intentions and interests against local needs</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Summary of problematisation of national ICT policy**
References


