E-government Strategic Plan Implementation in Tanzania: Learning from Challenges and Experiences from Kenya, Korea, India and Malaysia

Emmanuel Constantine Lupilya*

Abstract: For the past two years, the implementation of e-government strategic plan in Tanzania has been in a mixed approach resulting from lack of conceptual understanding: firstly, is the lack of a conceptual framework as a baseline for e-government strategic plan implementation. Secondly, is the mixture of understanding the two concepts, the institutional accountability and institutional ownership. The failure to understand these two concepts obscures the institutional process efforts to implement the e-government strategic plan. The study pointed out that such complexities continue to disrupt the institutional efforts in dealing with competing conflicts of interest, corruptions and delays between institutions process, resources and the enhancement of guidelines factors. Thirdly, is the idea that the implementation of the e-government strategic plan can be explained in view of mono-tasking; in a sense that tasks of developing the e-government strategic plan focusing on the guidelines, the institutional process, and enhancing the resource factors are reduced into a single task. In additional, the failure of e-government strategic plan was regarded as a linear timeline factor: for instance, there is a persisting lack of guidelines, resources and institutional process framework in the development of the specific sectorial guidelines. The aim of this research is twofold: First, is to identify factors that affect the successful implementation of the e-government strategic plan. Second is to suggest a conceptual framework for implementing the e-government strategic plan in the context of Tanzania. To do so, the current study examines these factors using a descriptive cases drawn from four countries: Kenya, Korea, Malaysia, and India. The study analyzed different models from these cited countries and suggests a spectacular

* Emmanuel Constantine Lupilya is a government official working in the Office of the President of Tanzania. He holds a Bachelor's Degree in Business Administration, a Master's of Science in Information Technology obtained from Finland, a Master's Degree in e-government and e-policy from Seoul, Korea. He is currently a Doctoral Candidate in the Graduate School of Public Administration at Seoul National University. His research interests include e-government, e-government policy, public policy, technology inequality, and e-government transformation in developing countries. E-mail: elupilya@gmail.com.

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method on how the e-government conceptual framework can be established within their effort of achieving the e-government strategic plan. The study concluded that a conflict of interest, IT/e-government system ownership and accountability, within the institutions and the private sector were the stumbling block to forward the implementation of the e-government strategy plan. For the success of implementing the e-government strategic plan more efficiently therefore, ties with guidelines, resources and institutional process that should be monitored by e-government task force to eliminate barriers and forge ahead to results oriented. The proposed conceptual framework is inevitable to address the problems that a parasite to the implementation of the e-government strategic plan in Tanzania.

Keywords: Guidelines cloud, E-government strategic plan, Institutional process, Architecture cloud, Framework cloud, Resources cloud

INTRODUCTION

The e-government strategic plan can be defined "as plan for e-government systems and their supporting infrastructure which maximizes the ability of management to achieve organizational objectives" (Heeks, 2006). The development of e-government strategic plan in Tanzania which come into life was promulgated in 2012. This plan aimed at "providing a clear road map to accelerate the Tanzania government effort towards delivering quality and responsive services to the public" (RoT, 2012, pp. ix-x). It should be noted that, the ICT policy of 2003 gave birth to the e-government strategic plan of 2012. Now the emergence of this e-government strategic plan should highlight several key important goals such that, it should act as nuts and bolts that guide, administer, coordinate and shape the direction for successful e-government implementation. Likewise, this would support the institutions to achieve its future planned goals (Song, 2006; Heeks, 2006a; Rabaiah & Vandijck, 2009; Mundy, 2010). Nevertheless, the fundamental goals of the e-government strategic plan in Tanzania is to: 1) improve quality of public services in terms of accessibility, responsiveness, and efficiency, 2) enhance the productivity and knowledge sharing and 3) provide integrated solutions for improving work process. According to the analysis from other countries, the key goals of their e-government are consolidated to bring the future direction of the e-government. This aimed at speeding up the potential of e-government strategic planning implementation (Heeks, 2006a; Rabaiah & Vandijck, 2009).

In Tanzania, the government continues to invest resources and effort to implement a full functional e-government strategic plan aiming at achieving a number of key objectives such as 1) e-Government Institutional Framework Developed by 2017; 2) HR

Capacity Improved by 2017; 3) Government-wide Electronic Infrastructure Developed by 2015; 4) Government-wide Shared Systems Implemented by 2017; 5) e-Service Flagship Projects Implemented by 2016 and; 6) e-Government Awareness Increased by 2015 (RoT, 2012). These are the key prime objective of the e-government strategic plan in Tanzania. Consequently, if all these objectives are consolidated, the focus would become apparent, that is, the e-government strategic plan would be interlinked to provide a one stop shop for online services that explains the future e-government deployment. Different view of the e-government strategic plan development was presented by Heeks (2002, 2006); Zarei & Ghapanchi (2008) argued that having many ambitions and goals they tends to obscure the efforts and very often fails to direct attention to the development of guidelines, resources and institutional process. These challenges are taken into consideration with the current study, and are viewed as the key framework for the enhancement of e-government strategic plan (see figure 1).

For the purposes of understanding the implementation of the e-government strategic plan, this study analyzed several challenges faced by the e-government agency. These challenges are raising concerns about how the e-government strategic plan can become a transformational process (Berg, 1997; Heeks, 2003; 2006; Myers, 1994). In additional to that, the implementation of e-government strategic plan from its inception, are observed in a mixed approaches of conceptual understanding: at first, is the lack of a conceptual framework for guideline development and enforcement: Institutions are using top-down approach to develop policies and strategies and directing them to a ministerial level without any conceptual framework of the guidelines was a mere failure. Even if such approach can be improved, the paper argued that without providing clear guidelines, sustainable resources and institutional process (see figure 1) such efforts will always leads to what Heeks (1998) called it as a total failure. It follows that in the absence of institutional process as a key driver to carefully and innovatively designing, planning, coordinating the resources and guidelines factors towards implementing the e-government strategic plan (Heeks, 1999; 2001; 2006) such efforts are doomed to fail. Second, is the mixture of concepts and the understanding between the institutional accountability and institutional ownership while implementing e-government strategic plan: The lack of understanding of these two concepts underlying the institutional process of e-government strategic plan implementation continues to disrupt the efforts of achieving the e-government goals. In the absence of understanding institutional accountability and ownership has explained why institutions are facing competing conflicts of interest, corruptions and delays between institutions process and the enhancement of guidelines factors (see figure 1). Studies on institutional capability are dominated by accountability and ownership within institutions (Chen et al., 2006; Heeks, 2006; Shahkooh & Abdollahi, 2007). The ultimate goals is to address the challenges in

resource distribution and holding the institutions accountable while advances their IT system ownership (Chen et al., 2006; Heeks, 2006; Shahkooh & Abdollahi, 2007). These are the ultimate goals for institutions to achieve the expected future e-government goals (Heeks, 2006; Schware & Deane, 2013; Lupilya & Jung, 2015). Third, in order to facilitate practical implementation of the guidelines, as well as the institutional process, the resources is seen as a crosscutting pipeline that can influence effective implementation of guidelines and enhancing institutions process. However, depending on how the institutions setup is, it is possible to measure the outcome whether is more effective or less effective. According to Bhatnagar (2004); Gichoya (2005); UNESCO (2013); and Song (2013) proposes that the responsible institutions must be knowledgeable enough while trying to reduce the risks and failure of implementing the e-government strategic plan and by maximizing the resources. The idea behind is to encourage research and development (R&D) in the area of developing e-government strategic plan innovation. Researches show clearly that multiple innovation in e-government can only be promoted through stakeholders and citizen engagements, knowledge sharing and information literacy, and collaboration in the field of e-government technology. This multiple involvement can enhance a diversified innovation within the community and institutions to manage this knowledge for successful e-government attainment (Heeks, 2006; Jung, 2007; UNESCO, 2013; Song, 2013; Lupilya & Jung, 2015).

The current study examines these challenges drawn from four different countries. It should be noted that, within these countries some are implementing their strategic plan targeting for national economic development which are not tied up to e-government strategic plan. Our interest is to understand different cases of experience towards strategic plan implementation focusing on national projects. Four different countries were chosen and presented: Kenya, Korea, Malaysia, and India. The reasons of citing these countries are: their model of strategic plan implementation has shown a positive results; studies have cited this countries as a best practice in strategic implementations and therefore, they carry top level of reference and citation; with diversified strategic methods of implementation and experiences shown on these countries have added value to the choosing criteria.; due to geographical dispersion and government systems a mixture of countries such as Kenya and other developed Asian countries was considered to yield a maximum impact on this study. In summary, the study analyzed different models from these cited countries and suggests a spectacular conceptual framework for e-government strategic plan implementation (Heeks, 1999; 2006; Grabow et al., 2002; Rubino-Hallman and Hanna 2006).

The aim of this research is twofold. First, is to identify factors that affect the successful implementation of the e-government strategic plan. The focus is on the analytical measures related to guidelines factors (*Architecture cloud*): portal integration architecture,

interoperability of IT systems architecture, Database integration architecture, Intra-government network architecture, and IT systems consolidations architecture. These factors ties with the contextualized institutional process factors (*Framework cloud*) such as: The MDA's and stakeholders' engagement framework, legal transformation framework, implementation framework, Cyber security framework, and checks and balances framework. All these factors are mediated by the "resources factor" (*Resources cloud*) that affect the smooth implementation of the e-government strategic plan, such as: the presence of Smart IT personnel, financial and technical resources. The second aim is to suggest a conceptual framework for implementing the e-government strategic plan in the context of Tanzania.

The remainder of the chapters is structured as follows, Chapter 2 will represent the conceptual framework of e-government strategic plan implementation. Chapter 3 is the Case studies of Tanzania, Kenya, Korea, Malaysia, and India. While in Chapter 4 will discuss the analysis of the case study in Tanzanian perspective. The final chapter 5 will provide concluding remark, policy direction, and recommendation, however, it will also highlight the future research work.

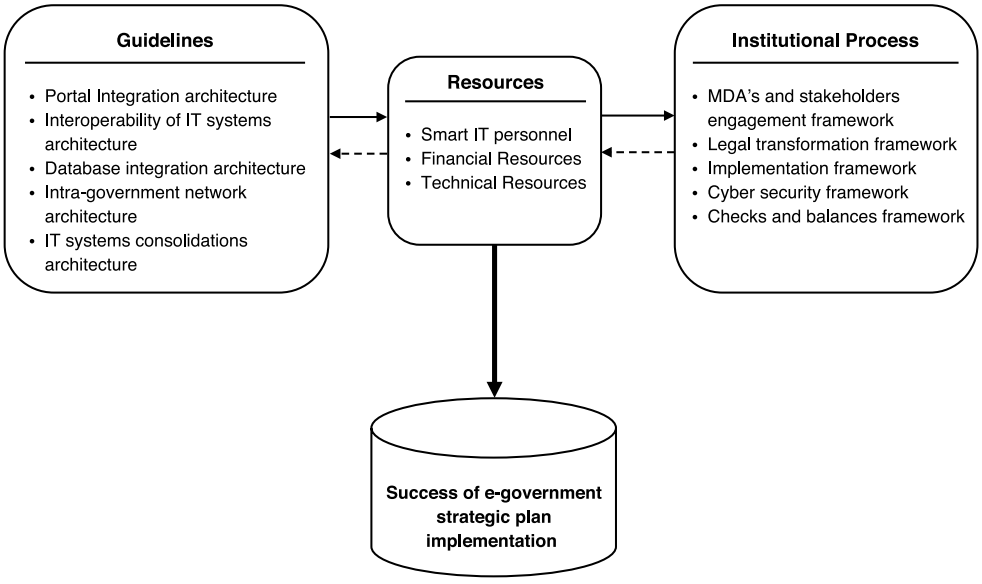
CONCEPTUAL FRAMEWORK OF E-GOVERNMENT STRATEGIC PLAN IMPLEMENTATION

The study presents the conceptual framework of e-government strategic plan implementation. Three cardinal factors were identified: guidelines, resources, and institutional process. The findings are supplemented with experiences using case studies reviewed, analyzed and consolidated to validate the effectiveness of e-government strategic plan conceptual framework as depicted from figure 1.

The Guidelines, Resources and Institutional Process

The study begins by addressing the question of why the implementation of the e-government strategic plan in Tanzania for the past two years has failed? Several literatures and experiences shows that, lack of information on e-government strategic plan and the adoption of different prototype version from developed countries was the major reason for the failure. Similarly, institutional failure to understand their context before adopting a prototype version of e-government strategic plan has yielded mixed approaches that becomes stumbling block for the institutional success (Davison et al., 2005; Heeks, 2006; Jung, 2007; Walser et al., 2009; Mundy, 2013; Lupilya & Jung, 2015). This adopted strategy very often lacks the specificity context, such as architecture

Figure 1. The Conceptual Framework for Effective G-government Strategic Plan Implementation



cloud, resources and institutional process clouding (Walser et al., 2009; Mundy, 2013; Lupilya & Jung, 2015). As these approaches involved, the strategic plan is sent to the government institutions for implementation with underlined directives. These directives are merely administrative guides which does not attract attention to innovation (see figure 1) but rather focus on manipulating the rules or practices to suit their institutional context. This type of directives does not correlate with how many rules and procedures can be placed in action (Chen et al., 2006; Heeks, 2006; Shahkooh & Abdollahi, 2007). This section is worth to unveil what's behind the scene.

The Guidelines

In order to understand the concept of guidelines, I began looking at the U.S. Dept. of Veterans Affairs (June, 2015),[1] they stress that guidelines is about modifying processes to fit certain routines and standard and achieve goals within the organization practice. Building guidelines for e-government strategic plan requires adequate resources (*Resources cloud*) that includes: Smart IT personnel, financial and technical resources. This resource can have an effect to the designing and development of guidelines innovation underlying architectures and development in all spheres (Heeks, 2006;

1. http://www.healthquality.va.gov/ (Retrieved on June, 2015).

Table 1. Challenges of E-government Strategic Plan Versus Resources

Challenges / Resources / Cloud	Guidelines	Institutional Process	References
Smart IT	• Deploy Smart IT personnel for the development and integration architectures cloud: Portal; Database; Intra-government network; IT systems consolidation	Smart IT as an engine to design the standardized accepted framework cloud: MDA's and stakeholders engagement; legal transformation; implementation; cyber security; checks and balances	Fountain, 2001; Heeks, R., 2001, 2002, 2006a; Hiller & Belanger, 2001; Chen et al., 2006; Lupilya & Jung, 2015
Financial	• Adequate financial support for the development and integration architectures cloud: Portal; Database; Intra-government network; IT systems consolidation	Financial support to operationalize the standardized accepted framework cloud: MDA's and stakeholders engagement; legal transformation; implementation; cyber security; checks and balances	Gichoya, 2005; West, 2005; Ndou, 2004; Heeks, 2006; Saha, 2008; Schware & Deane, 2013.
Technical	• Reveal strong technical Support for the development and integration architectures cloud: Portal; Database; Intra-government network; IT systems consolidation	Provision of Technical support on systemizing the standardized accepted framework cloud: MDA's and stakeholders engagement; legal transformation; implementation; cyber security; checks and balances	Chen et al., 2006; Heeks, 2006; Grant & Chau, 2006; Down, 2007; Park, 2008; Saebø, Ø, 2012; Sartipi, Yarmand and

Shahkooh & Abdollahi, 2007). Similar to the institutional process (*Framework cloud*), the resources can influence several frameworks, development and implementation in terms of the MDA's and stakeholder engagement, legal transformation, implementation framework, cyber security framework, checks and balances framework that are interwoven with guidelines (Chen et al., 2006; Heeks, 2006). One can observe that these are contrary to the "administrative" directives, and cannot influence the successful attainment of the e-government strategic plan implementation. With regards to guidelines in the context of Tanzania, existing models of guidelines describe the managerial part and practices part of it.

In contrary, I offered a new dimension towards guidelines (*Architecture cloud*) as a key driving force that comprises several elements that are explained in details: the Portal integration architecture; Interoperability of IT security systems architecture; Database integration architecture; Intra-governmental network architecture and; IT systems consolidation architecture (UNESCO, 2005; Chen et al., 2006; Rabaiah & Vandijck, 2009; Mundy, 2010; Lupilya & Jung, 2015). For the purpose of understanding

the concept of architecture cloud in this particular part of the guidelines, the study adopted the definition of "architecture" from IEEE (2007) as "fundamental organization of a system, embodied in its components, their relationships to each other and the environment, and the principles governing its design and evolution."[2]

The portal integration architecture offers several fundamental advantages and functions: portal can be understood as an interactive web-based application that provides a one stop shop for information and data to citizen, government, private sectors and others (Fountain, 2001; Heeks, 2002; Grant & Chau, 2006). Government institutions, private sectors and other organizations have adopted their own portal as the strategic gateway to provide information or other relevant data to the public at large (Ndou, 2004; Park, 2008; RoT, 2012). So portals are regarded as a heterogeneous interactive application that runs on the web, and are built up in different application environment underlying security, authentications, privacy and other related security aspects (Deora et al., 2006; Chen et al., 2006; Sartipi et al., 2007). The development of portal integration architecture is imperative in a sense that the architecture can reveal lots of challenges and risks at a glance that needs to be mitigated as possible when implementing the e-government strategic plan (Acuna et al., 2005; Doucet et al., 2009). On the other hands, it assured the reduction of government spending on technology. Among other potential benefits, the portal integration architecture would save as a controlling mechanism for web portal costs and other associated charges such as: domain, web maintenance charges and services, update patches and application costs, duplications of images, information's, data, etc. and increase reliability, maintainability, and the web portal quality of services (Acuna et al., 2005; Deora et al., 2006; Sartipi et al., 2007; Doucet et al., 2009).

For the purpose of harmonizing these heterogeneous portals requires a sufficient supply of resources such as smart IT personnel, financial and technical support. Smart IT personnel are important due to their specialties to integrate vast knowledge and forge ahead to key and fundamental solution of the technology era (Sartipi et al., 2007; Doucet et al., 2009). Provision of adequate financial resources is necessary for acquisition of knowledge and innovation based on IT equipment and software, designing and implementation, research and development, monitoring and evaluation of the government IT systems (Sartipi et al., 2007; Doucet et al., 2009). Whereas, technical support is another key resource driver that helps to mitigate IT system's dependency, and ensure project sustainability and manageability (Heeks, 2006; Saha, 2008; Lupilya & Jung, 2015). Technical support may comprise multiple knowledge that the government may not have at the age of advanced technology (Lupilya & Jung, 2015). This multiple

2. IEEE (2007): IEEE 1471 Website, IEEE Std. http://www.iso-architecture.org/ieee-1471/ieee-1471-faq.html (Retrieved on June, 2015).

knowledge would help to spell-out key transformation areas of the e-government strategic plan through filtering sufficient information, encourage engagement, and harmonize institutional ownership and accountability (Heeks, 2006; Jung, 2007, Mundy, 2010, Lupilya & Jung, 2015). While researchers and several practitioners have thought that, engagement does vary across e-government systems, technology sophistications, legal transformation, implementation, cyber security, and the aspects of business knowledge and managerial capability (Ndou, 2004; Heeks, 2002, 2006; Jung, 2007; Doucet et al., 2009; Lupilya & Jung, 2015).

Conversely, the guidelines implementation process can be effective when an institutional process creates a consolidated architecture cloud as well as framework cloud. In the absence of this instrument may lead to an institutional failure. At a larger scale, institutions may face challenges in terms of information and innovation through smart IT personnel, financial and technical perspectives. These may disrupt the effort of innovatively design and implement architecture, resources and frameworks clouds (Ndou, 2004; Heeks, 2002, 2006; Jung, 2007; Doucet et al., 2009; Lupilya & Jung, 2015). To address these challenges, the study proposes that resources cloud is necessary and indispensable for providing support and should be seen as an interwoven process rather than a supporting factor. The smart IT personnel can influence knowledge sharing in the institutional process; while the financial resources can provide innovative support for the institutional process, and finally the technical support resources are all imperatives in supporting innovation for the sustainable development of the institutional framework in terms of engagements, legal, implementations, cyber security, checks and balances frameworks conducts.

On the basis of the interoperability of IT systems and the IT systems consolidation architecture: these factors are said to be interwoven in a system that require information and innovation when integrating systems (Jung, 2007; Doucet et al., 2009; Lupilya & Jung, 2015). For the e-government strategic plan of Tanzania, it does not provide a roadmap to address interoperability and consolidation of the IT systems at an early stage of the e-government strategic planning implementation. The strategy focuses on ensuring that IT systems within governments are integrated and connected to one platform. There are complex problems that still inhibit the smooth implementation of the e-government strategic plan, and one of it, is the interoperability and consolidation of IT systems innovation (Acuna et al., 2005; Saha, 2008; Hahn et al., 2008; Doucet et al., 2009). Performing the process of designing the architecture for interoperability and consolidation of IT systems may help mitigate the challenges of incompatibility issues, duplication of IT systems, applications, weak, and unstable systems (Acuna et al., 2005; Saha, 2008; Hahn et al., 2008; Doucet et al., 2009). However, these challenges can be addressed by entangling the resources as an interwoven factor that influence the

institutional process. Since institutional process are not intersected within the architecture cloud environment, they seem to be disengaged themselves at the level of MDA's and stakeholders as a consequence of the lack of framework cloud: legal transformation framework, implementation framework, cyber security, checks and balances framework. Solution to address these impediments is greater than the solution to invest in the provision of resource distribution in terms of smart IT personnel, the financial and the technical resources.

The intra-government network architecture portrays a sophisticated integration process to design a key map for government network (Acuna et al., 2005; Saha, 2008; Hahn et al., 2008; Doucet et al., 2009). It is a primitive style to integrate government network without having intra-government network architecture in place. The intra-government network architecture should guide the designing, measurement and the implementation process. While in the report published with the United Nations (2008) stress that, for the government to go online it requires a strong intra-government network process, legal technology enforcement and so forth (Chen et al., 2006; Heeks, 2006; Kamarck, 2007; UN, 2008; Lupilya & Jung, 2015). Most of the developed countries have worked with complicated intra-government network architecture to transform their government into e-government (Acuna et al., 2005; Saha, 2008; Hahn et al., 2008; Doucet et al., 2009). The focus is to make coherent and connected or wired government at an edge of technology (Kamarck, 2007). Similar studies such as Heeks (2006), Chen et al. (2006), and Hahn et al. (2008) suggested that this would take one step further to boost the government institutions to go online and bring them forth into e-government. This is a sophisticated exercise that comprises several environmental challenges such as location-ability, affordability, manageability, connect-ability, inter-operability, and so forth (Heeks, 2002, 2006; Ndou, 2004; Bhatnagar, 2004). These are crucial and sophisticated factors that require the institutional capability in terms of resources cloud to influence the development and execution of the architecture cloud. Such resources cloud is imperative to ensure adequate provision of smart IT personnel, financial capability and technical support for smooth e-government strategic plan implementation.

As the database integration architecture is concerned, government information and data should be well structured, monitored to support multidimensional and functionality platform from accessibility to sharing and interactions at all platforms (Acuna et al., 2005; Saha, 2008; Hahn et al., 2008; Mundy, 2010; Saebø, 2012; Lupilya & Jung, 2015). Such interoperability functionalities would motivate the prospects of government institutions to integrated information and data across boundaries and ready to go online. Managing government databases and information are sophisticated approach that requires strong innovation in terms of institutional ownership, involvement or

engagement, accountability, trust coupled with the resources cloud (Mundy, 2010; Saebø, 2012; Lupilya & Jung, 2015). At an institutional level smart IT personnel would provide a joint innovation and collaboration towards the development and installation of the systems. Whereas, financial resources are imperative because, without support financially, the process will halt to exceeds. Legal transformation and the implementation framework are the key drivers behind the technical resources while detailing the architectural process (Mundy, 2010; Saebø, 2012; Lupilya & Jung, 2015). Far more important is the cyber security for the government database architecture which needs to be innovatively designed and carried forward as the process of implementing the e-government strategic plan (Mundy, 2010; Saebø, 2012; Lupilya & Jung, 2015). The institutions, however, need to constantly check and balance the process, or even intervene the sequential trends at any point of time to ensure that the systems operation is consistent with the predefined architecture.

THE CASE STUDIES OF TANZANIA VS. KENYA, KOREA, MALAYSIA AND INDIA

The Case of Tanzania: Experience and Challenges of E-government Strategic Plan

The implementation of the e-government strategy plan in Tanzania, started at an early 2011 when the ICT policy come into life (RoT, 2003). Recently, there are several attempts that demand government institutions to implement the e-government strategic plan which was promulgated on 2012 (RoT, 2012). Using its mandate, e-government agency starts directing the Ministries, Departments and Agencies (MDA's) to learn the e-government strategic plan and implement it. Few of these MDA's began to rigorously using different approaches to support the implementation of the e-government strategic plan even without guidelines and frameworks. At some point, it raises critical challenges to institutions which started to implement, other institutions still lag behind in the implementation process due to lack of resources cloud, architecture cloud as well as the framework cloud.

While implementing the e-government strategic plan, e-government agency provides the directives attached to the strategic plan and push down the road to MDA's for implementation (RoT, 2003, 2012). These approach faces a number of challenges towards the government efforts to achieve its full e-government objective (RoT, 2012). At first, the government institutions do not have sufficient understanding of the e-government strategic plan (Heeks, 2002, 2006; Jung, 2007; Lupilya & Jung, 2015); for

instance, the key aspects of the "directives document" is focusing to achieve number of goals including: setting up e-government institutional framework, improve human resources awareness, government wide electronic infrastructure and shared systems development and implementation, e-service flagship projects implementation, and improve e-government awareness (RoT, 2012). Second, is the ownership and accountability concerns. It seems that, due to lack of clear understanding of e-government strategic plan, it led to government institutional dilemma in accounting for the e-government strategic plan implementation and ownership. The challenge observed here is the question of "who owns what in terms of the IT systems in the government institutions? And who is accountable for the ownership of the e-government systems in the government business?" The leading institutions whose mandate are to coordinate and oversee the e-government implementation fails to address such challenge and often fails to realize institutional success. These become the genesis for reducing tasks (*guidelines, resources and institutional process factors*) to a single task (*in this case a single "factor"*). The results can be translated into monotasking e-government strategic plan which led to shadow other key factors or tasks (See figure 1) that inhibit the smooth implementation of the strategy. Along with these challenges, the proposed conceptual framework for e-government strategic plan provides necessary step to generate an added value of this strategy underlying these challenges in the current situation (Wimmer et al., 2001; Huang et al., 2002).

The Current Situation

In the mid of 2000s, Tanzania has experienced the rapid growth of the use of technology through online interaction. Several institutions such as Ministries, Departments, government agencies (MDA's), and other private sector, including social networking are emerging to lead the way of interacting online via internet (Fountain, 2001, Chaula, 2006; Castells, 2010). The inversion of e-government in recent years has attracted more attention to government, politicians, administrators and policy makers on how such application can be shared, interacted and integrated. The main focus is towards the transformation not only the government, business productivity, but also the social-economic paradigm through implementing the e-government strategic plan.

The government of Tanzania has invested more effort in the realization of the e-government strategic plan implementation initiatives. The government embraces the transformation of e-government in the country based on its realization of the benefits and values of economic, administration, business and social-economic prosperity. Several literatures proposed a number of advantages of using e-government strategic plan such as Heeks (1998,2002, 2003,2006); Rabaiah & Vandijck (2009) are:

increasing efficiency and effectiveness in the e-government implementation; increase a coherent e-government transformation, cut-off government spending on e-government projects, enhance implementing government agency accountability, reducing corruption by embracing transparent on e-government projects (Kumar, 2005) increase productivity in implementation of the strategic plan and speed up the balanced e-government systems; become a nuts and bolts for e-government attainment milestone; become the tools for sustainability of the e-government efforts; as a toolkit for e-government transformation; a framework and the roadmap towards transforming e-government and so forth Heeks (1998, 2002, 2003, 2006); Bhatnagar (2004); UNESCO (2005); Rabaiah & Vandijck (2009).

Currently, the absence of the framework cloud (Figure 1 – *guidelines*) for supporting e-government strategic plan implementation has resulted into "*lesser approach*" of adopting strategies from developed countries. Most of these simple approaches are designed to track what government systems and its business operations in developing countries works rather than focusing on orchestrating knowledge for e-government transformation (Grabow et al., 2002; Grönlund, 2004; RoT, 2012); this tendency has persisted for a long time even during the development of the strategic plan which ended up with a competing conflict of interest. In additional to that, these approaches can be viewed in several dimensions, but this study highlights only the critical ones: first, the aspects of weakening the level of innovation and knowledge sharing in terms of resources cloud: it is normally the case that Smart IT personnel within government institutions are being offered unlimited number of study tour abroad "branded as best practice" learning which in turn lock-in their knowledge and innovation (Oduba, 2000; Scott et al., 2004; Gwaradzimba, 2010). As they share their knowledge during study tour, the major key goal of the hosting country is to convince them to adopt a ready-made solution of the e-government or framework for e-government strategic plan available for purchase, but at first will be offered for free or with the trial version (Heeks, 2001; 2004; Scott et al., 2004). It follows that the institutional effort of teaming up and engaging into formulating the roadmap for e-government strategic plan implementation becomes difficult due to the mixed approaches such as the believe that "don't re-invent the wheel" on the other hand, the financial resources which is highly governed by the government budget cycle, contributed to the failure in the e-government strategic plan implementation. For instance, the delays of IT budget from central government has been critical to the strategic plan implementation which encourages government institutions to opt for best practice approach; Whereas for the technical support, this can be viewed similar to the above scenario but a little different. Technical experts are invited from abroad to help develop e-government strategic plan together with local staff watching and assisting them. The gap in terms of knowledge and innovation is

too high for local technician or experts to communicate within the structures. The study observes this as another threat or challenge rather than teaming up for success and sustainability of the national e-government project.

Moreover, this method for enhancing e-government strategic plan implementation (Ho, 2001; Grabow et al., 2002) was overlooked with other government initiatives such as the e-services. The e-government strategy was supposed to be a national agenda with special national task force to review the day to day implementation alongside with the 1) guidelines (Architecture cloud): portal integration architecture, interoperability of IT systems architecture, database integration architecture, intra-government network architecture, IT systems consolidation architecture (abbreviated as architecture cloud), 2) Resources (Resources cloud): the presence and active smart IT personnel in each MDA's, the financial resources framework, and the technical resources and the 3) institutional process (Framework Cloud): scanning the level of engagement between the MDA's and the stakeholders, legal transformation framework, the implementation framework, the cyber security framework, checks and balances framework (Westcott, 1999; Huang et al., 2002; Grabow et al., 2002; Grönlund, 2004). Looking at the baseline of e-government in the country, the formulated e-government strategic plan do not provide a clear conceptual framework towards the implementation. However, absence of this conceptual framework between the guidelines, resources and institutional process which the author sees it as an open gap has resulted into institutional failure for e-government strategic plan implementation.

Furthermore, the e-government agency is seen as implementing the e-government strategic plan independently leaving other institutions lagging behind. This weakness takes a different view of explanation such as embracing to IT system ownership. This makes the point of not explaining how and when the government institutions employees, private sectors and the respective government institutions are regarded as a key player in the whole process of the implementation (Snellen, 2000; Wimmer et al., 2001; Grabow et al., 2002; Grönlund, 2004). Implementing the strategic plan by portion and leaving other tasks unattended create a result of the monotasking effects. The researcher sees this as a paradox to the implementation process because the e-government strategy plan doesn't state the readiness of government institutions and their staff (ibid.).

Recent literatures on e-government implementation such that of Snellen, 2000; Wimmer et al., 2001; Grabow et al., 2002; Heeks (2002; 2003); Grönlund, 2004; Von, 2005; Shuppan, 2009; Song, 2009) argued that, despite the fact that e-government strategic plan in developing countries fail, their conclusion arrives at, among other factors, failure to involve and equip staff, ability to develop guidelines (Bhatnagar, 2005), limited resources and weak institutional process (UNESCO, 2005), lack of practice-based strategic framework (Rabaiah & Vandijck, 2009), all are significant mechanism to

foresight the implementation of e-government strategic plan. Other studies investigated on e-government strategic development and implementation stages in developing countries, studies on e-government strategic plan were carried out by Wimmer et al. (2001); Grabow et al. (2002); Heeks (2003); Clockwork (2004); Grönlund (2004); UNESCO (2005); Rabaiah & Vandijck (2009) indicated that centralizing of the e-government strategy plans resulted into poor coordination and implementation and very often in institutions monotasking effects. In most developing countries such as Tanzania, Kenya and Uganda the IT or e-government strategies are usually pushed down the road at the ministerial level sometimes without guidelines or framework of implementation.

The Case of Kenya

The e-government strategy plan was promulgated in 2004, with three prime objectives of the e-government strategy plan: the improvement of service delivery using ICT, making government more transparent, and improve citizen participation in policy making (RoK, 2004; Dahl, 2006; Odanga, 2010; Njuru, 2011). To achieve numbers of key objectives of the strategic plan, the government of Kenya formulated different institutions framework to oversee the implementation of the e-government strategic plan (Ho, 2002; La Porte et al., 2002; RoK, 2004; Odanga, 2010; Njuru, 2011). They setup their framework starting at a High level: the Cabinet committee was capacitated to oversee the implementation of the e-government strategy plan (RoK, 2004; Njuru, 2011) at the Middle Level: the Directorate of e-government is assumed to take responsibility to involve innovative staff to coordinate and integrate e-government project in Kenya whereas at the Lower Level: ICT Units with a diversified staff expertise within the government of Kenya were tasked to implement the e-government strategy at a ministerial level (La Porte et al., 2002; RoK, 2004). The results of such integration of diversified innovation and knowledgeable staff involvement were the best and most efficient methods to the successfulness of e-government strategic plan implementation in Kenya (Ho, 2002; Denhardt et al., 2002; RoK, 2004; Odanga, 2010; Njuru, 2011).

The Case of Malaysia

The case of Malaysia is not directly related to the e-government strategic plan implementation but their approach are related to economic integration and speeding up the economic improvement. The author uses this case study in order to understand the approaches and their framework of implementing national projects. Looking at the government of Malaysia, it has installed and tasked a special agency called Performance Management and Delivery Unit (abbreviated as “PEMANDU”) to carry out the

planning and spear ahead the implementation process in various economic key results areas (Asrul, 2010; Pemandu, 2010; Lyer, 2011). This Performance Management and Delivery Unit (PEMANDU) attached with its laboratories, has added value to the full attainment of the economic transformation program in Malaysia (ibid.). Furthermore, their established lab involves highly talented staff from the government sector, civil society, and private sector. On the other hand, PEMANDU involves high level government officials, such as Prime Ministers, Ministers and other stakeholders. The formulation of the Team was cross cutting in nature, it started from National level, Local Level to Citizen Level and other Private Sector were in the midst of the PEMANDU Team (Asrul, 2010; Pemandu, 2010; Lyer, 2011). The idea behind of the labs is to carry out sufficient research on ways how to implement the Malaysian national government's goal. The results show that, talented government staff involvement towards the implementation of the strategic plan was the key driver that incredibly skyrocket the economic key results area to about 60% (Asrul, 2010; Pemandu, 2010) as compared to the situation before. The government of Tanzania should devote its capacity to learn this approach and if possible to install a new device (Task force) with a clear goal of achieving the e-government strategy plan.

The Case of Korea

While similar situation with Tanzania back in 1995, Korean government formulated various agencies to foresee the implementation of the e-government back in 1980's. In each one of their projects, special committee on e-government involved talented government staff and academicians, and were tasked to institute guidelines for implementation and follow-up (Joon, 2009; RoK-Cabinet Office, 2010; NIA, 2011 also see Table 3). Projects like National Information system projects in 1987, Informatization strategic plan, e-government development plan (3.0 Government named after Park Geun-Hye – President of Korea) were among the prime key projects which were attained successful (ibid.). Special committee on e-government were tasked to formulate a substantial mechanism and guidelines for implementing IT and e-government master plans (Korean, e-government framework, 2003; Joon, 2009; NIA, 2011). The composition of the special committee on e-government, was headed by politicians (President Will), Ministers (MOPAS), private institutions, and involvement of government staff and the Citizen (Agency level, Ministerial Level, and the Local Government) similar with Joon (2009); RoK -Cabinet Office (2010); Nia (2011). There has been a remarkable output and as today, Korean is ranked number 1 according to the e-government world index of 2014 (UN e-government Index, 2014).

The Case of India

India is a fast growing continent in terms of high tech for the last decade. It has marked a transition of its e-governance by setting out clear e-governance Master plan (Kumar & Best, 2006; Indian, E-governance Strategy, 2010). This strategy has compiled 10 stages that are implemented across various sectors. In short, India provided a summary of priorities and objective areas that were necessary to be implemented before rolling out the entire e-governance strategy. Several institutions which involved innovative and creative government staff were formulated to foresee the implementation of the e-governance strategy. While India had a similar idea with the ICT adoption by Basant et al. (2006), among of this institutions were categorized as follows: at a National level, the National Association for SMART state Governments (NASSgov)[3] were established; at a government Level (Government Ministries; Departments / States / Districts etc.) the National Informatics Center (NIC)[4] organization was formulated to assume the responsibility of overseeing the implementation of e-governance strategy at the government level (India Strategy Implementation, 2010). Other institutions were formulated at the local level similar to PEMANDU model with its Labs to spell out the e-governance strategy in India (Basant, 2006; Asrul Hadi, 2010; Pemandu, 2010; Indian strategy implementation, 2010). Government institution's staff had played a key role in all these institutions and had contributed much for the forward looking and improvement of high tech in India in terms of the implementation of the e-governance strategic plan (Snellen, 2000; Wimmer et al., 2001; Sachdeva, 2002).[5]

THE ANALYSIS OF THE CASES: TANZANIAN IN PERSPECTIVE

The Buckminster Fuller a designer and innovator bring a new ideology, once said "you never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete" (Fuller, undated).[6] The analysis shows that the situation on which the effort of adopting the already developed frame-

3. Act as a window for the inanities taken by India government to achieve e-governance. www.nassgov.org (Retrieved on May, 2015).
4. For further information about NIC can be. http://www.nicsi.com/ (Retrieved on May, 2015).
5. White Paper on E-governance strategy in India. http://indiaegov.org/knowledgeexchg/egov_strategy.pdf (Retrieved on May, 2015).
6. http://en.wikiquote.org/wiki/Talk:Buckminster_Fuller (Retrieved on May, 2015).

work of e-government strategic plan is a typical monocropping effect which may differ with the local settings in terms of the architecture cloud, the resources cloud and the framework cloud. This might not change the status of e-government per se, but rather may lead to MDA's monotasking effects as explained above. This is contrary to the fuller's argument that, institutions need to develop their own model (conceptual framework as the one proposed) in order to change the existing or adopted model for it to work better. Put it even more precisely, that the transformation of the e-government strategic plan does not depend on how wise institutions are in adopting and implementing it, but rather correlate with the measurement of knowledge and innovation creation towards building the conceptual framework (guidelines, resources and institutional process) of e-government. This would enhance the capability to innovate and bring new framework for the transformation within institutions and the government as a whole. The study acknowledges other scholars opinion who suggest that, experiences and capacity do differ from country to country as noted in an institutional arrangement suggested by Ndou, 2004; Bhatnagar (2004); Heeks (2006; 2008); while adopting the e-government strategic plan framework. In the case of Tanzania, the study found that the e-government strategic plan implementation has been affected by the institutional monocropping and monotasking in the effort of implementing the e-government through its strategic plan (Thandika, 2012).

The analysis suggests that, institutions should mitigate this problem by employing innovative design of the new conceptual framework and embraced it as Tabula rasa. It can do so by encouraging MDA's to implement the e-government strategic plan through the framework that helps to mitigate approach of pushing directives downward to ministerial level. Such approach has been so difficult for the government institutions to implement e-government strategic plan at a full length. This would avoid treating government institutions as a trial lab for any national project that requires strategic plan implementation.

Similarly, the telecommunication policy, privatization policy, and other ICT / IT strategic plans has been a critical challenge to be implemented due to the absence of internal developed conceptual framework. It implies that, private institutions are implementing their strategy and policies based on international standard adoption. Government institutions on the hand, are facing similar challenges of adopting a strategic plan framework for implementing the e-government. The study analysis shows that, this competing interest gives a signal to government institutions that they will eventually experience a knowledge crisis in their own setting. As mentioned earlier, the effect of adopting or re-inventing the wheel do discourage knowledge sharing and innovation towards e-government strategic plan implementation (Oduba, 2000; scott, et al., 2004; Gwaradzimba, 2010). From international cooperation point of view, it is

important to cooperate as a mediating factor in assisting developing countries to adopt a technological strategic plan framework. But such mediating factor is only inevitable when it becomes as a source of knowledge creation and innovation towards e-government strategic plan implementation. But literatures have shown that, this mediating factor has led institutions into competing conflict of interest; government reluctant to embrace change (agree to disagree), institutions innovation weakness, fear of transparency and accountability within government institutions (Ndou, 2005; Kumar et al., 2007; Mutula, 2008; Karokola et al., 2009; Odanga, 2010; Njuru, 2011). All these effects have undermined the effortful accomplishment of the e-government transformation via its e-government strategic plan in the country.

The unprecedented growth of the internet like a binary tree in the country is alarming and therefore demand a new conceptual framework as proposed in this study. This framework would help to foresight government intra-network infrastructure for the connectivity and accessibility. The analysis of the case study shows that, government institutions must embrace the formulation of the appropriate Task force to foresight the implementation of the e-government through the strategic plan framework. Nonetheless, it may be difficult for the government to spark the benefit with the current situation which is equipped with fragmented policy, fragmented ICT projects, and fragmented IT or ICT strategic plans, fragmented ICT infrastructure (Naidu et al., 1994; Heeks, 2001; 2003; Chardwick, 2003; Brewer et al., 2006).

Far more, the adverse effects on telecommunication industries and other sectors, especially networking companies, and other telecommunication industries are raising a number of challenges that involve elements of corruption and weaken government institutions innovation. Just in time, the recent report on World Bank (in UNDP, 2008) towards government and telecommunication sector in developing countries, shows that the corruption rate in the government and also in the telecommunication sector is growing at a very high speed concurrently with the speed of internet consumption (Hellman & Kaufmann, 2000; Handelman, 2001; Fisman & Gatti, 2002; Rose-Ackerman, 2004; Dreher et al., 2006). According to Rose-Ackerman & Andrew, 1996; Rose-Ackerman (1999; 2004) defined corruption as an action happen within public and private institutions that involves the misuse of resources and power (Fisman & Gatti, 2002) for personal interest (Dreher et al., 2006). It has been noted earlier in the literature that Internet technology is a backbone of the e-government transformation and utilization. Following this analysis, the study found that, these competing industries are attracting knowledgeable workforce from government institutions with a promised incentive and motivations packages (Hellman & Kaufmann, 2000; Dreher et al., 2006). Moreover, if that option fails, they set aside a special budget that will be used to provide "back incentives packages" to government institution employees (Rose-Ackerman &

Andrew, 1996; Rose-Ackerman, 1999; Hellman & Kaufmann, 2000) as their strategy to weaken government institution's efforts in innovation technology and strategic plan development (Rose-Ackerman, 1999; 2004; Handelman, 2001; Fisman & Gatti, 2002; Rose-Ackerman, 2004; Dreher et al., 2006). For the purpose of this paper, I define "back incentive package" as an exercise involves immoral behavior of influencing public employees to generate extra profit that they are not entitled to. As a result, the intention to address the corruption in view of consolidating all policy or strategy cloud: the telecommunication policy, ICT policy, e-government strategy, privatization policy, remains untouchable (Rose-Ackerman & Andrew, 1996; Rose-Ackerman, 1999; Hellman & Kaufmann, 2000). From the analysis above, the study shows that all this instrument are directly associated with the government institution innovation and creativity (Wimmer, 2001; Huang et al., 2002).

Similar case to MDA's, the analysis shows that the controversy in e-government strategic plan implementation can be addressed alongside with investment in e-government knowledge and innovation creation. According to Westcott (1999); Heeks (2003); and Lupilya & Jung (2015) stress that issues of duplication of IT infrastructure and technological applications, procurement of substandard IT equipment's, weak protection of information and data security, misalignment of applications and several types of devices for common resources sharing and communications (Heeks, 2002, 2006; Lupilya & Jung, 2015), emanates from moral conflict caused by orchestrating back incentives package. This was observed as other side effects when institutional knowledge and innovation in e-government field are disrupted. The author pointed out that this weak-link can be addressed by re-investing on institutional knowledge creation and innovation in order to promote the implementation of e-government strategic plan (Elsenhans, 1987; Westcott, 1999; Heeks, 2003; Lupilya & Jung, 2015). The results from this analysis suggest that special Task force can become a special device to govern and foresight the e-government strategic plan implementation. This task force can champion the MDA's efforts in the e-government strategic plan implementation in order to attain the intended goals. This should apply to all government sectors as a cross-cutting pipeline similar to the e-government national project, the architecture cloud, resources cloud and the framework cloud but also similar to strategic plan development, institutional framework development and implementation.

CONCLUSION AND RECOMMENDATION

Richard Buckminster fuller once said:

> "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete" (Fuller, undated)

The study begins by addressing the following questions: identifying factors that affect the successful implementation of the e-government strategic plan, and secondly suggest a conceptual framework for implementing the e-government strategic plan in the context of Tanzania. The analysis of the e-government strategic plan shows that, this living document should become the nuts and bolts needed to adjust and fix component that does not compromise to national e-government implementation efforts. Furthermore, it should become as an administrative toolbox, to address many of the challenge areas that needed to be explored before rolling-out the e-government strategic plan.

The study discovered that, e-government strategic plan has been formulated and adopted in a different fashion that leaded to monocropping and monotasking of the e-government strategic plan within MDA's. It is also evident that the critical problems within government institution's failure to implement the strategic plan document was due to the effects of donor agents. However, explicitly knowledge sharing and collaboration within government institutions for e-government strategic plan implementation was perceived in a mixed approach and institutions interests: for instance the question of e-government / IT systems ownership, institutional reluctant to accountability, the nature of IT business contract and agreement, IT services and sustainability management, IT or e-government systems procurement and standards, government budget cycle for IT / e-government manageability, and so forth, has resulted in a competing conflict of interest, corruption and diminish the effort of the e-government strategic plan process. In additional to that, previous studies show that high corruption, mismanagement of IT systems, technology systems duplications, and managerial obstacles continues to inhibit the implementation process. In addressing these challenges, government institutions should invest in developing and managing institutional knowledge and innovation in terms of resources cloud (*Smart IT personnel, Financial and Technical*) towards attainment of e-government strategic plan implementation. This study revealed that both of the factors presented in this study such as guidelines and institutional process are equally important to describe and address the challenges of e-government strategic plan process.

Most important is that, this e-government strategic plan, has public policy implications which includes: e-government systems ownership and accountability, transparency and capability, institutional participation and governance, IT services and sustainability management, IT or e-government systems procurement and standards, government budget cycle for IT / e-government manageability, cloud infrastructures, Hybrid technology

systems architecture, public e-services cloud, institutional framework cloud, and so forth. More effort should focus on implementing this e-government strategic plan while addressing the development of guidelines (architecture cloud), investing on institutional resources (resources cloud), and promoting institutional process (framework cloud).

By using the e-government agency, public policy now should act as a back-up to support government institution's efforts and to neutralize their approach of implementing the e-government strategic plan. This would influence the e-government agency to become powerful while encouraging knowledge sharing and innovation between MDA's to implement the strategic plan as suggested from the conceptual framework (figure 1). As Fuller put it, you cannot transform the e-government while fighting with the same environment or reality, but you can transform the e-government through innovation and creativity by creating new models that shadow the old one (Fuller, 1970). Other reasons for the failure of e-government strategic plan were observed as a linear timeline factor: for instance the lack of employee engagement, the private sector and virtual society in the development of the specific sectorial guidelines was evidently observed as a problem. In some other circumstances the e-government strategic plan of 2012 was written using abstract context, objectives, target, and so forth. Institutions fail to interpret these contents because they were too hard for institutions to understand and frame its framework of implementation. The lesson from the cited countries especially Malaysia, where involvement of knowledgeable government staff in establishing a new agency to foresight the implementation of the e-government strategic plan sets as a model to be followed also by Tanzanian institutions.

In summary, the government of Tanzania embraces the concept of self-sufficient underlying Fuller's ideas that "to change something, build a new model that makes the existing model obsolete." The installation of the e-government agency was a step forward to realize the transformation of the e-government in the Tanzania as a self-sufficient and a new model of success. This agency has done remarkable outcome in an effort to set out the base for embracing the e-government achievement. However, there are laps and down in terms of challenges on how to achieve the expected goals and objective setup from the e-government strategic plan. For instance the study addresses the key objective 4 (government-wide shared systems) and objective 5 (e-service flagship projects) of the e-government strategic plan (RoT, 2012).

Fuller's work was highly correlated with improving process and ensuring that capability and innovation are the key drivers to institutional stability and change. Institutions process should recognize that for effective transformation of the e-government strategic plan, a new conceptual e-government framework must be innovatively embraced. The Top-down approaches used in e-government strategic plan implementation should be turned upside down. The approach should take the forms of bottoms ↔ middle ↔

top ↔ bottoms approaches for the e-government strategic plan implementation to succeed. Fuller's work as a designer and innovator encourages a new ideology to embrace transformation by evidencing that, things do not happen by adapting or applying best practice approach only, but rather it happens through innovative struggle as he put it "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete" (Fuller, undated). Finally, the involvement of institutional resources (*talented government staff*) who are zealous to supply sufficient knowledge; the institutional financial capability to support the strategic planning, and the institutional technical support should be connected to forward the efficient implementation of e-government strategic plan, and that establishes the ground for a future research work.

REFERENCES

Acuna, C. J., Marcos, E., Gomez, J. M., & Bussler, C. 2005. Toward web portals integration through semantic web services. Proceedings of the international conference on next generation web services practices (NWeSP'05). IEEE Computer Society.

Asrul, H. A. S. 2010. The Malaysian insider, pemandu eyes RM500b, 2.2m jobs in NKEA projects by 2020 (Retrieved on May 1, 2015).

Basant, R., Commander, S., Harrison, R., & Menezes-Filho, N. 2006. *ICT adoption and productivity in developing countries: New arm level evidence from Brazil and India* (IZA Discussion Paper No 2294). Germany.

Bhatnagar, S. 2004. *E-government from vision to implementation: A practical guide with case studies*. New Delhi: Sage.

Cabinet Office. Government ICT Strategy. 2010. Retrieved on May 1, 2015, from http://webarchive.nationalarchives.gov.uk/20100304104621/http://www.cabinetoffice.gov.uk/media/317444/ict_strategy4.pdf.

Castells, M. 2010. The information age: Economy, society and culture. Volume 1: The rise of the network society. 2nd ed. Oxford: Wiley Blackwell.

Chaula, J. A. a. Y., Louise & Kowalski, S. 2006. Technology as a tool for fighting poverty: How culture in the developing world affect the security of information systems. *Proceedings of the 4th IEEE International Workshop on Technology for Education in Developing Countries* (TEDC'06).

Clockwork. 2004. A framework of e-governance and ICT best practices [Homepage of International institute for communication and development]. Retrieved on May 1, 2015, from http://www.iicd.org/about.

Dahl, R. 2006. *A preface for democratic theory*. Chicago: University of Chicago Press.

Davison, R. M., Wagner, C., & Ma, L. C. K. 2005. From government to e-government: A transition model. *Information Technology & People*, 18(3): 280-299.

Deora V., Contes A., Rana O., Rajbhandari S., Wootten L., Tamas T., & Varga L. 2006. *Navigating provenance information for distributed healthcare management*. IEEE/WIC/ACM International Conference on Web Intelligence.

Doucet, G., Gotze, J., P. Saha, & Bernard, S. 2009. *Coherency management: Architecting the enterprise for alignment, agility and assurance*. AuthorHouse, Bloomington, IL.

Dreher, A. & Schneider, F. 2006. *Corruption and the shadow economy: An empirical analysis* (IZA DP No. 193, January 6, 2006). Institute for the Study of Labour.

EGOV. 2012. *LNCS*, 7443: 198-209. Springer, Heidelberg.

Elsenhans, H. 1987. Dependencia, undevelopment and the third world state. *Law and State*, 36: 65-94.

Erl, T. 2005. *Service-oriented architecture: Concepts, technology and design*. Prentice, Hall.

Fisman, R. & Gatti, R. 2002. Decentralization and corruption: Evidence across countries. *Journal of Public Economics*, 83(3): 325-345.

Fountain, J. E. 2001. *Building the virtual state: Information technology and institutional change*. Brookings Institution Press, Washington, DC.

Gichoya, D. 2005. Factors affecting the successful implementation of ICT projects in government. *The Electronic Journal of e-Government*, 3(4): 175-184.

Grönlund, A. 2005. State of the art in e-government research: Surveying conference publications. *International Journal of Electronic Government Research*, 1(4): 1-25.

Gwaradzimba, E. & Shumba, A. 2010. The nature, extent and impact of the brain drain in Zimbabwe and South Africa. *Acta Acad*, 42(1): 209-241.

Hahn et al. 2008. Integration of multi-agent systems and semantic web services on a platform independent level. IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, IEEE Computer Society.

Handelman, S. 2001. Thieves in power: The new challenge of corruption. Nations in Transit. Freedom House.

Heeks R. 2006. *Implementing and managing e-government: An international text*. London, Thousand Oaks, Calf: SAGE.

Heeks, R. 2002. Information systems and developing countries: Failure, success and local improvisations. *The Information Society*, 18(2): 101-112.

Heeks, R. 1998. *Information technology and public sector corruption* (Information System and Public Sector Management Working Paper Series, Paper No. 4). Manchester, UK: IDPM, University of Manchester.

Heeks, R. 2001. *Understanding e-governance for development*. The University of Manchester, Institute for Development, Policy and Management Information, Systems, Technology and Government: Working Papers Series, Number 11/2001. Retrieved on May 1, 2015, from http://idpm.man.ac.uk/idpm/igov11abs.htm.

Heeks, R. 2002. E-government in Africa: Promise and practice. *Institute for Development Policy and Management*, 13(1): 1-28.

Heeks, R. 2002. Information systems and developing countries: Failure, success, and local improvisations. *The Information Society*, 18(2): 101-112.

Heeks, R. 2003a. Most e-government-for-development projects fail: How can risks be reduced? Institute for Development Policy and Management, University of Manchester.

Heeks, R. 2006. *Understanding and measuring eGovernment: International benchmarking studies*. Manchester, UK: University of Manchester. Retrieved on March 1, 2015, from http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN023686.pdf.

Heeks, R. 2006a. *Implementing and managing e-government*. London: Sage Publications Ltd.

Heeks, R. 2008. *Success and failure in eGovernment projects*. eGov4Dev. Retrieved on May 1, 2015, from http://www.egov4dev.org/success/index.shtml.

Heeks, R. (ed.). 1999. *Reinventing government in the information age: International practice in IT enabled public sector reform*. Routledge, London

Heeks, R. 2003. Most e-government-for-development projects fail: How can risks be reduced? *iGovernment Working Paper Series*, no. 14.

Heeks, R. 2000. Reinventing government in the information age. In L. Klamo, W. W., Huang, K. L. Wang, & T. Le (eds.), *Successfully implementing egovernment: fundamental issues and a case study in the USA, 2006* (pp. 158-173). Electronic Government, Roultedge Press, London.

Heeks, R. & Kenny, C. 2002. ICTs and development. In Krishna, S. & Madon, S. (eds.), *Proceedings of the 7th international working conference of IFIP WG9.4*. New Opportunities, Perspectives and Challenges. Bangalore, India.

Hellman, S., Jones, G., Kaufmann, D., & Schankerman, M. 2000. *Measuring governance, corruption and state capture: How firms and bureaucrats shape the business environment in transition economies* (Policy Research Working Paper 2312). World Bank.

Ho, A. T. 2002. Reinventing local governments and the e-Government initiative. *Public Administration Review*, 62(4): 434-444.

Huang, W., D'Ambra, J., & Bhalla, Y. 2002. An empirical investigation of the adoption of egovernment in Australian citizens: Some unexpected research findings.

Journal of Computer Lnfimnation Systems, 13(I): 15-22.

Indian Strategy Implementation. 2010. Retrieved on May, 2015, from http://india.gov.in/e-governance/national-e-governance-plan.

Joon, S. H. 2009. E-government of Korea. Retrieved on March 1, 2015, from http://eng.nia.or.kr/english/bbs/download.asp?fullpathname=%5CData%5Cattach%5C20111222611162611%5CE%2DGovernment+of+Korea%2Epdf&filename=E%2DGovernment+of+Korea%2Epdf.

Jung, K.-H. 2007. Linking theory to evidence: Public policy in the information age: Literacy skills and schooling from the international adult literacy survey. *Korean Journal of Policy Studies*, 21(2): 177-203.

Kamarck, E. 2007. *The end of government as we know it: Making public policy work.* Boulder, London: Lynne Riener Publishers.

Karokola, G. & Yngström, L. 2009. State of e-government development in the developing world: Case of Tanzania–security view. Proceedings of the ICEG-5th International Conference on e-Government. Boston, USA.

Kumar, K. 2010. Citizen's charter for e-government services. *Management In Government*, 27-33.

Kumar, R. & Best, M. L. 2006. Impact and sustainability of e-government services in developing countries: Lessons learnt from Tamil Nadu, India. *The Information Society*, 22: 1-12.

Kumar, V., Mukerji, B., Irfan, B., & Ajax, P. 2007. Factors for successful e-government adoption: A conceptual framework. *The Electronic Journal of e-Government*, 5(1): 63-77

LaPorte, T. M., Demchak, C. C., & De Jong, M. 2002. Democracy and bureaucracy in the age of the web: Empirical findings and theoretical speculations. *Administration and Society*, 34(4): 411-446.

Li, F. 2003. Implementing e-government strategy in Scotland: Current situation and emerging issues. *Journal of Electronic Commerce in Organizations*, 1(2): 44-65.

Lupilya, E. & Jung, K. 2015. E-government transformation in Tanzania: Status, opportunities and challenges. *The Korean Journal of Policy and Studies*, 30(1): 147-184.

Mkandawire, T. 2012. Institutional monocroping and monotasking in Africa. In Noman et. al. (eds.).

Mundy, D. & Musa, B. 2010. Towards a framework for e-government development in Nigeria. *Electronic Journal of E-government*, 8: 148-166.

Mutula, S. M. & Mostert, J. 2010. Challenges and opportunities of e-government in South Africa. *The Electronic Library*, 28(1): 38-53.

Myers, M. D. 1994. Dialectical hermeneutics: A theoretical framework for the implementation of information systems. *Information Systems Journal*, 5(1): 51-70.

National Information Society Agency. 2011. Korea e-government: Government EA (Enterprise Architecture) & e-government standard framework. Retrieved on May 1, 2015, from: http://www.itu.int/ITUD/asp/CMS/Events/2011/ict-apps/s9_NIA.pdf.

Ndou, V. 2004. E-government for developing countries: Opportunities and challenges. *The Electronic Journal of Information Systems in Developing Countries*, 18(1): 1-24.

Njuru, J. W. 2011. Implications of e-government on public policy and challenges of adopting technology: The case of Kenya. *Journal of Global Affairs and Public Policy*, 1(1).

Odanga, B. 2010. Factors influencing the successful implementation of e-government in Kenya using the case of the directorate of e-government. Unpublished MBA project, University of Nairobi.

Oduba, V. 2000. Brain drain - technology ushers in brain gain. *Science in Africa*.

OECD. 2003. The case for e-government: Excerpts from the OECD report. The e-government imperative. *OECD Journal on Budgeting*, 3(1): 61-13.

Park, J. H. 2007. Linking theory to evidence: Public policy in the information age: How citizens accept e-government service: A comparison of four theoretical models. *Korean Journal of Policy Studies*, 21(2): 143-156.

Pemandu. 2010. Retrieved on May 1, 2015, from https://www.pmo.gov.my/dokumenattached/NEM_Concluding_Part.pdf/; and http://jpt.moe.gov.my/eng/RUJUKAN/GTP%20Roadmap.pdf.

R. M. Davison, C. Wagner, & L. C. K. Ma. 2005. From government to e-government: A transition model. *Information Technology & People*, 18(3): 280-299.

Rabaiah, A. & Vandijck, E. 2009. A strategic framework of e-government: Generic and best practice. *Electronic Journal of e-Government*, 7(3): 241-258.

Rose-Ackerman & Andrew, S. 1996. The costs of corruption for private business: Evidence from world bank surveys.

Rose-Ackerman. 1999. *Corruption and good government: Causes, consequences and strategies for reform*. Cambridge University Press.

Rose-Ackerman, S. 2004. Governance and corruption. In Lomborg, B. (ed.), *Global crises, global solutions*. Cambridge: Cambridge University Press.

RoT. 2003. *National ICT policy*. URT, Dar es Salaam, Tanzania.

RoT. 2012. *E-government strategic plan for Tanzania*. URT, Dar es Salaam, Tanzania.

Saebø, Ø. 2012. E-government in Tanzania: Current status and future challenges. In Scholl, H. J., Janssen, M., Wimmer, M. A., Moe, C. E., & Flak, L. S. (eds.).

Saha, P. 2007. *Handbook of enterprise systems architecture in practice*. IGI Global Information Science Reference, Hershey, PA.

Saha, P. 2008. *Advances in government enterprise architecture*. IGI Global Information Science Reference, Hershey, PA.

Sartipi K., Yarmand M., & Down D. 2007. *Mined-knowledge and decision support services in electronic health*. International Workshop on Systems Development in SOA Environments (SDSOA'07).

Scott, M., Whelan A., Dewdney J., & Zwi A. 2004. Brain drain or ethical recruitment? Solving health workforce shortages with professional from developing countries. *Med. J. Aust*., 180(4): 174-176.

Snellen, I. 2000. Electronic commerce and bureaucracies. In the proceedings the international workshops on database and expert system application (pp. 285-288).

UNESCO. 2005. *E-government toolkit for developing countries*. UNESCO, New Delhi. Retrieved on May 1, 2015, from http://unesdoc.unesco.org/images/0013/001394/139418e.pdf.

United Nations. 2012. United Nations e-government survey 2012: E-government for the people. Retrieved on May 21, 2015, from http://unpan1.un.org/intradoc/groups/public/documents/un/unpan048065.pdf.

United Nations Development Programme (UNDP). 2008. *A users' guide to measuring corruption*. Oslo: UNPD/Global Integrity.

United Nations E-government Survey. 2008. From e-government to connected governance/Dept. of economic and social affairs. Division for Public Administration and Development Management. New York: United Nations. Retrieved June 8, 2015, from http://unpan1.un.org/intradoc/groups/public/documents/un/unpan028607.pdf.

United Nations e-Government Survey. 2014. *E-government for the future we want*. United Nations, New York.

United Nations e-Government Survey. 2012. *E-government for People*. United Nations, New York.

United Nations. 2014. *United Nations e-government survey*. New York, NY: United Nations Publication. Retrieved on May 11, 2015, from http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2014.

United Nations/American Society for Public Administration (UN/ASPA). 2002. Benchmarking e-government: A global perspective. Retrieved on May 21, 2015, from http://www.unpan.org/e-Government/Benchmarking%20E-gov%202001.pdf.

Van Dijk, J. 2006. *The network society: Social aspects of new media*. 2nd Edition. London, Thousand Oaks, New Delhi: Sage.

Von Solms, B. 2005. Information security governance: COBIT or ISO 17799 or both? *Computers & Security*, 24(2): 99-104.

Wagner, C., Cheung, K., Lee, F., & IP, R. 2003. Enhancing e-government in developing countries: Managing knowledge through virtual communities. *The Electronic Journal on Information Systems in Developing Countries*, 14(4): 1-20.

Walser, K., Kühn, A., & Riedl, R. 2009. Risk management in e-government from the perspective of IT governance. In Chun, A. S., Sandoval, R., & Regan, P. (eds.), *Proceedings of the 10th annual international conference on digital government research: Social networks: Making connections between citizens, data and government* (dg.o 2009) (pp. 315-316). Digital Government Society of North America.

West, D. 2004. E-government and the transformation of service delivery and citizen attitudes. *Public Administration Review*, 64(1): 15-27.

Wimmer, M., Traunmuller, R., & Lenk, K. 2001. Electronic business invading the public sector: Considerations on change and design. In the Proceedings of the 34th Hawaii International conference on system Sciences.

Wimmer, M. A. 2007. The role of research in successful e-government implementation. In *E-government guide Germany: Strategies, solutions and efficiency* (pp. 79-87). Fraunhofer IRB Verlag, Stuttgart.

Wimmer, M. A. 2002. A European perspective towards online one-stop government: The eGOV project. *Electronic Commerce Research and Applications*, 1(1): 92-103.

World Bank. 2005. Definition of e-government. Retrieved on June 1, 2015, from www1.worldbank.org/publicsector/egov/.

Zarei, B. & Ghapanchi, A. 2008. Guidelines for government-to-government initiative architecture in developing countries. *International Journal of Information Management*, 28(4): 277-284.