

Public-Sector Reform, E-Government and the Search for Excellence in Africa: Experiences from Uganda

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Abstract. The traditional portrait of many governments worldwide, synonymous with a massive bureaucratic machinery operating inefficiently, unresponsively and at high cost, is gradually fading. Over the past two or so decades, Sub-Saharan African countries, have witnessed wide-ranging public-sector reforms often in search of effective and efficient systems of government. One such reform came in the form of ICT. Driven by the belief that e-government is one of the key motors to achieve significant leaps needed for reform, governments are taking wide-ranging initiatives to work better. This paper aimed at examining trends in public-sector reform that lead to contemporary e-government practice, highlighting experiences from an African country. Using the case study approach, the paper presents a historiographical analysis of public-sector reforms in Africa, and the role of ICTs in Uganda's quest for efficient and effective systems of administration.

Keywords: e-government, public-sector reform, excellence, Uganda, Africa

1 Introduction

The world over, there has been a paradigm shift where governments have realized the importance of Electronic Government (henceforth e-government) as a strong tool for public-sector reform in search of excellence. Governments have understood and appreciated the contribution of e-government to the government agenda in contrast to the traditional paper-and-file approaches often adopted in managing businesses. The Republic of Uganda, for instance, has a strong belief that ICT has the potential not only to revolutionize the way government operates, but also to enhance the relationship between government to business (G2B), government to government (G2G) and within government to citizen (G2C) (Republic Of Uganda, 2010). It is the belief of the Ugandan government, that ICT should be utilized to move into the era of electronic Government aimed at demystifying the role of Government, simplifying procedures, bringing transparency, accountability, and making credible timely information available to all citizens and at the same time providing all services in an efficient and cost-effective manner (Republic of Uganda, 2010). Arguably, the advent of ICT is fundamentally changing the way we work, learn and interact. This issue is especially relevant for countries in sub-Saharan Africa, where public administration is characterized by inefficiency, limited capacity, and poorly-trained personnel (Schuppan, 2009). However, although vast literature has been produced to discuss ICT adoptions at different government levels (Kaaya, 2011; Moon 2002; Denziger and Andersen 2002; United Nations 2008), questions with regard to e-government practice and public-sector reform in Africa have hardly been discussed or mentioned. The unique contribution of this paper, therefore, is that it presents a historiographical analysis of public-sector reforms that lead up to contemporary e-government practice in Africa's quest for efficient and effective systems of administration.

2 Public-sector reforms in search of excellence in africa

2.1 The Traditional (Weberian) Model

Available literature indicates that the public-sector in Africa is premised upon the traditional model of public administration which has its roots in the colonial era that begun effectively in 1900. Inyang (2008), for instance argues that the composite effect of colonialism and the disparagement of scholarship in management has since led to the denial of African management systems, and the continuing subjugation of African management to Western management theories and practices. This view is widely shared by Afro-centrists who believe that long before the advent of the colonial system, the old African villages and towns had effective public administration systems which village and town heads, chiefs and kings administered. These institutions were also regarded as political authorities and custodians of cultures.

After decolonization, Uganda just like any post-colonial society, simply inherited the derived 'Westminster-Whitehall' model of government (Guma, 2012; Inyang, 2008; Olum, 2011; Kiggundu, 1998). The idea behind this was that it was hard if not impossible, for Africa to draw from her own philosophical routes in order to re-

establish indigenous thinking on the field of public administration. The phenomenon of the 'Westminster-Whitehall' model of government in Africa submerged and dismantled indigenous institutions and in its place, established European institutions. Through this system, the values and lifestyles associated with the western model have been assimilated and to a large extent 'indigenized' on the continent. Its principles and regulations were simply written into the constitution and laws of the developing countries' existing public service departments in an *ad hoc* manner without consideration of the new demands that would be placed on her in an era of independence (Olum, 2011).

At the core of the 'Westminster-Whitehall' model of government, has been the Weberian model of the modern public service "characterized by a clearly defined division of labour, an impersonal authority structure, a hierarchy of offices, dependence on formal rules, employment based on merit, the availability of a career and the distinct separation of members' organizational and personal lives" (Turner and Hulme 1997). Characterized by a strictly hierarchical model of bureaucracy, the Weberian model is ideally "staffed by permanent, neutral and anonymous officials, motivated by the public interest, serving any government part equally, and not contributing to policy but merely administer those policies decided by the politicians" (Hughes, 1998). Ultimately, its structure is presumed to be a factor to unity and coordination, precision and speed, obedience and loyalty, predictability, impartiality, and permanence across government (Weber, 1968).

However, the Weberian model has had a rather devastating effect (Hughes, 1998; Kaaya, 2011; Kiggundu, 1998; Inyang, 2008). While Max Weber (1968) was essentially optimistic about the bureaucracy, several of its features including excessive observance and submission to rules and regulations, inefficiency, political interference, misuse of power, poor decision-making, corruption, job dissatisfaction, concentration of power, low creativity, managerial frustration, organizational conflict, and many other dysfunctions have come to characterize the public sector throughout Africa (Guma, 2012). Consequently, the Weberian model has been criticized so much that the concept *bureaucracy* has appeared to acquire a negative connotation, with time. Today, it is not regarded as complimentary to label an African organization bureaucratic. The term is frequently used as a derogatory slogan, as well as a critical label for all public-sector administration, or any large-scale formal organization rigid in nature as its theory and practices are now considered old-fashioned and no longer relevant to the needs of a rapidly changing society. Much of this criticism has come from organizational scholars, most whom subscribe to the New Public Management paradigm.

2.2 New Public Management Reform

The appeal for New Public Management (henceforth, NPM) in lieu of the old traditional model increased in the late 1980s and early 1990s with proponents writing extensively of the erosion of traditional public administration and service ethos (Hood, 1991; Hughes, 1998). During the 1980s and 90s, through to the present, the public-sector throughout the African continent and the world over has undergone through a major paradigm shift (Hood, 1991). This shift has been identified as the post-bureaucratic paradigm of public management which reflects the public-sector reforms carried out in late 20th century (O'Flynn, 2007). This reform which is more visible in the English speaking developing countries (Broadbent and Guthrie, 1992) has led to the emergence of what has been called the NPM (Hood, 1991).

Various schools of thought have emerged to discuss the differing interpretations of what the NPM is but there is general agreement that key components include deregulation of line management; conversion of civil service departments into free-standing agencies or enterprises; performance-based accountability, particularly through contracts; and competitive mechanisms such as contracting-out and internal markets (Caiden, 1991; Dunleavy, et al. 2006; Economic Commission for Africa, 2004). O'Flynn (2007) adds to the list privatization and downsizing. Ultimately, the NPM criticizes the traditional public administration theory and leads to changes in epistemology, and new methods and techniques.

Most African countries have experienced (some still do) significant new managerial techniques with both theory and practice focused on the search for better government. A general trend in line with new managerial techniques is easily observable in the literature on public-sector reform in Uganda, where NPM reforms date back to Milton Obote's adoption of structural adjustment reforms between 1981 and 1985 signified by his U-turn from the 'Move-to-the-Left' socialist rhetoric of the late 1960s (Kiiza et al. 2007). The structural adjustment reforms initiated with the support and leadership of the Bretton Woods institutions introduced a new public administration paradigm and macroeconomic policy framework (Economic Commission for Africa

2004) to advance public sector reform. During this period emphasized a change in the role of the state through localization and indigenization – often referred to as nationalization – of public administration (Kiiza et al. 2007). However, significant NPM reforms started in the immediate post-National Resistance Movement (NRM) period. These reforms were rolled-out in three significant 'waves' with each being the result of failure of previous attempt. These 'waves' are interesting to overview:

The first 'wave' (1989-1997) was largely structurally oriented and is evident shortly after the NRM in 1986 assumed power and formed a Public Service Review and Reorganization Commission (PSRRC) to diagnose problems with the demoralized and decimated service. The PSRRC found a 'bloated or over-expanded public service [that was] run down in terms of training, equipment and tools... poor management systems, [a] demoralized workforce with eroded moral values [and] poorly remunerated leading to moonlighting and corruption' (Republic of Uganda, 1990). The predominant approach was that of downsizing and privatization as part of the price for structural adjustment lending did not help that much. The PSRRC articulated a new vision for the civil service smaller, better paid, more efficient and effective body, guided by fair, simple and consistent rules and procedures to foster discipline and accountability, while promoting personal initiative in the achievement of assigned duties and objectives (Republic of Uganda, 1990; Robinson, 2006).

The second 'wave' (1997-2002) on the other hand, focused more on capacity building. By 1997, the short falls that had characterized the earlier reforms necessitated the need for other reforms. It was argued that the reform strategy needed to be 'refined' and 'revised' to bring it in line with new Constitutional order, reflect Government of Uganda policies, with a view to strengthening the reform strategy (Republic of Uganda, 2007). These presented a broader range of reforms aimed at 'building up' in contrast to the first that were aimed at 'cutting down the size'. The CSRP was thus renamed in 1997 to the Public Service Reform Programme (PSRP) to reflect the increasing importance of managerial practices and the private sector in government work (Olum, 2011; Robinson, 2006). The strategic report of the Ministry of Public Service (Republic of Uganda, 2000) alluded to these reforms and concluded that the profile of the public services had changed for the better, but what remained was to keep the momentum of the reforms. Indeed, the reform failed to meet the expectations of the disseminators and the recipients alike.

The third and last 'wave' of NPM reforms focused highly on political context and was initiated in 2005. It was brought about by the apparent failure of the first two 'waves' (Republic of Uganda, 2007). By 2005, it had come to be recognized that 'political context' and 'political feasibility' was critical to the success or otherwise of public-sector Management Reform and that more attention had to be paid to the political dimensions in each context, and cultural challenges for successful reform in Africa had to be dealt with. It was argued that foreign best practice was reinforcing international perspectives at the expense of indigenous knowledge, contextual conditions and cultural sensitivities (Republic of Uganda, 2007). It was also argued that reform had been hindered by lack of donor coordination leading to duplication, wastage and over-funding; lack of reform alignment by donors to countries' own priorities; and 'fad based' programming, hence the need to adopt a fresh 'wave' of public-sector Management Reform (Republic of Uganda, 2007). Notably, this wave of reform was also faced with a high failure rate (Guma, 2012). Practitioners and academics (Kaaya, 2011; Rwangoga, and Baryayetunga, 2007; Republic Of Uganda, 2010) cited the lack of an *enabler* to achieve significant leaps needed to effect administrative reforms. One such *enabler* came in the form of ICTs.

2.3 E-Government

E-government, "the use of ICTs in the public-sector to improve its operations and delivery of services," inherits policies inspired by NPM reforms implemented throughout the EU over the past twenty years. (Furuholt and Matotay, 2010). As a concept of recent origin that enjoys broad acceptance, e-government possesses no single definition and is therefore defined differently by different scholars (Coleman, 2006; Furuholt and Matotay, 2010; Heeks, 2001; United Nations, 2008). Ndou (2004), for instance, distinguishes the concept into four major dimensions namely: e-administration, e-citizens, e-services and e-society. However, it is the view of this paper that for e-government to be envisaged comprehensively, the concept of e-administration "which implies the application of electronic media for the management of the internal public organization" should be emphasized (Heeks, 2001). Within this perspective, e-government acts as a *catalyst* or a *guiding vision* to transform governments.

E-government aims at going beyond NPM reforms, since its goal is to transform the relationships between the public-sector and society and to explore new channels of service delivery. In other words, through ICT, the character of the post-NPM regime is currently being formed' (Dunleavy, et al., 2006). The view of e-government as a post-bureaucratic paradigm and more so as an extension than a component of NPM is apparently in agreement with Eggers and Goldsmith (2004) who stated that "the era of hierarchical government bureaucracy is coming to an end". Emerging in its place is a fundamentally different model called e-government in which government executives redefine their core responsibilities from managing people and programs to coordinating resources for producing public value. Table 1 below illustrates the significant public-sector reforms from the traditional (Weberian) approaches to an e-government structure in search of excellence in Africa.

Factors	Traditional Approaches	E-Government Structure
Mode of services	Service for citizens	Self service in many operations
Goal	Citizens in lines	Citizens on line
Expectation	Digital exclusion	Digital participation
Change	Paper intensive	Government on line
Management style	Transaction intensive	Knowledge management
Orientation	Production cost, efficiency	User satisfaction and control, flexibility
Leadership style	By rule and mandate and Command and control	Flexible management, inter-departmental teamwork, facilitation and coordination
Organizational structure	Top down, hierarchical	Innovative entrepreneurship, multi-directional network with central coordination, direct communication
Communication	Centralized, formal limited channels	Formal and informal, direct and fast feedback, multiple channels
Interaction	Documentary mode and interpersonal interaction	Electronic exchange, non face-to-face interaction
Process organization	Functional rationality, vertical hierarchy of control.	Horizontal hierarchy, network organization, information sharing

Table 1: Some E-Government Public-Sector Reforms - adopted from (Ndou, 2004)

Scholars and analysts agree that e-government has spin-off effects, and that the more ICTs are used for government business, the greater the impact (Nkwe, 2012; Kaaya, 2011; Bellamy and Taylor, 1998; Ebrahim, et al. 2003). Indeed, the promise of e-government, is that governments will achieve numerous benefits as ICT-related initiatives can be a tool for *reforming* the public-sector. Literature reveals that the capacity to provide broad, far-reaching, and even revolutionary, reform is what brings ICT to the center of public-sector discourse (see, for instance, Kaaya, 2011; Moon 2002; Denziger and Andersen 2002; United Nations 2008). With the faith and rhetoric that follows ICT applications the world over, it is only natural and reasonable to assume that e-government should be able to deal with massive bureaucratic machinery, inefficiency, unresponsiveness, high costs, and related issues in Africa. ICTs are increasingly perceived to possess the potential of increasing efficiency, providing access to markets and/or services, and improving governance (Brown and Grant, 2008). They are held in high esteem for their ability to radically transform how governments operate (Brown and Grant, 2008).

The beauty of e-government in relation to public-sector reform, is that it has the potential to offer a variety of possibilities for more efficient and effective administration (Ebrahim, et al. 2003). Ebrahim, et al. further argue that e-government is able to lead to more efficient government with increased accountability and transparency, and reduce corruption and prevent many (but not all) of the human errors that manual processing entails. Additionally, e-government has the ability of potentially allowing new information flows that challenge past norms and capabilities, thereby offering alternative opportunities of reinventing government. Bellamy and Taylor (1998) justify such views that government can be reinvented via technology, on the basis of the boundary challenging nature of ICT. According to Bellamy and Taylor governments can be re-engineered and reinvented via ICT to serve society better. In other words, e-government is identified as a driver and enabler of change and reform due to its boundary challenging nature, through which it is able to

resolve public-sector problems by focusing on transparency and fighting corruption (Bellamy and Taylor, 1998; Ebrahim, et al. 2003).

However, although e-government – measured against its self-proclaimed universal relevance and appeal – has had tremendous impact (Coleman, 2006; Heeks, 2002; Schuppan, 2009), it has clearly failed to become the predominant public management paradigm in Africa (Heeks, 2002). In fact, most government functions are still performed by vertically integrated bureaucracies functioning pretty much as Weber imagined (see, for instance, Schuppan, 2009; Rwangoga and Baryayetunga, 2007; Coleman, 2006). True to Weber's prophecy, bureaucracy remains “one of the hardest social structures to wipe out, once it is fully established, and the idea of eradicating these organizations becomes increasingly utopian” (Weber, 1947).

Scholars have offered different explanations in justification of the hierarchical bureaucracies' persistence alongside the introduction of e-government practices. Key among them include: inadequate security and privacy in an e-government strategy (Layne and Lee, 2001; Bonham et al., 2001); IT skills shortage (Ho, 2002; Moon, 2002); financial constraints (Bonham et al., 2001; Ho, 2002; Heeks, 2002); institutional and cultural constraints (Schuppan, 2009); policy-implementation gap (Li 2003); and, the digital-divide (Jaeger and Thompson, 2003; Lam and Lee, 2005). Scholars (Nkwe, 2012) contend that these factors command the adoption of e-government, and depend on the local context of any country. According to Nkwe (2012), these challenges must be addressed to increase prospects of e-government practices in search of excellence.

3 Methods

This paper analyzes trends in administrative reform that lead toward contemporary e-government practice in Africa's quest for efficient and effective systems of administration. The intention to present a historiographical analysis of public-sector reform and the contributions of ICT on this. However, because discussion on ICT and e-government in African countries is still in its infancy, the purpose of this paper is not to test hypotheses, but rather to explore, clarify, and analyze the contributions of ICTs toward public-sector reform in Uganda.

A qualitative case study approach was adopted for this objective (Yin, 2003). This approach is one of the research methods most widely used and discussed in qualitative Information Systems research particularly in relation to the analysis of the situated interaction between organizations, information technology, and people (Dubé and Paré, 2003). Two sectoral cases are studied and analyzed: Ministry of Local Government (MoLG) and the Ministry of Education (MoE) sectors. The two cases were chosen based on the ratio between donor and government funding, the status of their information system and their technological maturity. The cases were also chosen because they are, at present, some of the most technologically advanced, supported initiatives in Uganda. Consequently, they have a mature information system and possess the best achievements in the public service in Uganda in terms of technological innovation and information system performance (See, for instance, Republic Of Uganda, 2010).

The study adopts a combination of document materials, observation, and interview for data gathering, which are valuable sources of data for e-government research. The central materials used for this study were documents related to e-government projects in Uganda including websites, government reports, newspaper articles, and official policy documents, textbooks. The documents cover a period from 1980s to 2012 and have been sampled randomly per time period. The categories of documents provided us with good insight into what has been written concerning the topic under study. Acceptance or otherwise of the retrieved data was dependent upon the information that was intended to be gathered from the review.

Observation method relied upon researcher participation in key activities of the e-government initiatives and processes and also observed a few project sights. However, the type of observation used in this study did not imply a research strategy of immersion. Nevertheless, some observations were made of the physical settings of some projects and the quality of the ICT skills challenges of those working in them. The third approach – the interview method, relied upon the use of questions via semi-structured and informal interviews with twelve Ugandan education and/or local government local stakeholders including two consultants, two researchers and two IT experts, in addition to six personnel (three from each sectoral case) with the earliest dates of employment. Selected personnel represented records information officers, direct users of the information systems, management, and technicians. Data collected from interviews, observations and relevant documentary extracts were transcribed and coded using the qualitative analysis software NVivo.

These methods gave us a better understanding of the contribution of ICTs in the evolution of public-sector reforms and of the factors that affect e-government initiatives in search of excellence. The subsequent section is in essence a review of the contemporary state of play, contributions and trade-offs of ICT in public-sector reform in Uganda and aims to explore and validate the arguments set out in the preceding section in a deeper and meaningful manner. The study was conducted between December 2011 and April 2012.

4 Experiences from Uganda

Documentary review reveals that when the National Resistance Movement (NRM) assumed power in 1986, it found a government synonymous with a massive, demoralized, decimated, bureaucratic, inefficient and unresponsive machinery that operated at high cost. To diagnose these problems, government implemented several NPM-related reforms. Government however came to the realization, after some years of effort on reform, that progress had been much more limited than originally envisaged (Guma, 2012; Republic of Uganda, 2010; Republic of Uganda, 2007; Robinson, 2006). Documentary review further indicates that it is this realization that has translated into a myriad ICT strategies and initiatives being implemented in various sectors (see, Republic of Uganda, 2010, for instance).

4.1 ICT Trends and Policy Framework

We found that the potential of e-government in Uganda was recognized in the late 1990s but actualized in the mid 2000s and is marked by a shift in public and private funding away from traditional programs towards programs that encompass a central ICT-based proposition. Since the late 1990s, a range of bodies including the Uganda Communications Commission (UCC) established in 1997 have contributed in supporting ICT development. The establishment of the National Information Technology Authority of Uganda (NATU), for instance has been instrumental in initiating and leading the development of the national e-Government strategies and implementation plans; advising the Government on all e-government matters, and recruiting, training, posting and managing all e-Government staff in the various MDAs. This is in addition to the Ministry of Public Service which leads public service process reviews and business process re-engineering and has responsibility for capacity building for e-Government initiatives.

A consultative process to formulate a National ICT Policy was finalised in 2002 and adopted by Cabinet in 2003. Subsequently, the Ministry of ICT was established in 2005. The Uganda E-Government Network Feasibility Study of 2006 reported that the use of ICT in the Uganda Public Service was increasing but in an *ad hoc* manner that caused conflicts of interest, with ministries seeking to develop their own ICT policies. By the following year, the Ministry had begun to oversee e-government programmes across state-run institutions and to promote and apply ICT to all spheres of life to enable the country to achieve its national development goals.

In 2007 a Parliamentary Sessional Committee for ICT set up to strengthen ICT development in Uganda. In 2010, to give clarity and coherence to its e-government strategies and to support and maximise the use of rapidly emerging technologies, the government developed a comprehensive National e-government Framework through the Ministry of ICT. The framework considers in-depth the objective, goals and principles of its e-government programme, the factors for its successful implementation, success criteria and the roadmap for implementation.

These policies, strategies and processes are reflective of the of the Ugandan leadership's political will in the creation of an enabling environment to allow for the conceptualization, development and implementation of e-government programmes in search of excellence in the public-sector.

4.2 . ICT Contributions

Table 2 below outlines some of the e-government initiatives from two government sectors – Local Government and the education sectors – in search of excellence in the public-sector.

Cases from Local Government (LG)	
<i>Rural Communication Development Program (RCDP)</i>	The program ensures that all district local governments in the country acquire websites. Today, public, investment and other business information opportunities are published on the websites. Challenges include periodic updating and payment of web hosting and

	internet fees by districts.
<i>District public-sector Network Project (District Net)</i>	This project has led to the installation of LAN, WAN, e-mail and internet systems, plus data and voice communication links between District headquarters. Functional data and information management and public communication systems have been improved.
<i>LG Information Communication System (LOGICS)</i>	LOGICS is an information system that covers all sectors in LG. It was developed under the Local Governments Development Program (LGDP 1) and enables the entry, verification, analysis, storage and dissemination of data generated from the M&E, Compliance Inspection; and Computerized Software Sub-systems.
<i>LG Financial Information Analysis System (LGFAS),</i>	This system captures all relevant financial data on revenues and expenditure for all levels of LG. The system has been designed with facilities to analyze and generate in-depth reports on revenue performance, expenditure, donor funds and Central Government transfers to the LG.
<i>Performance Monitoring Management Information System (PMMIS) and Client Feedback System</i>	These are reporting frameworks which provide end-users with means of accessing data from different systems, as if it were stored in a single system. They also provide users with means of drilling down/up and to dynamically generate reports of interest.
Cases from the Education Sector	
<i>Education Management Information System (EMIS)</i>	EMIS is a robust computer application designed to meet the management, administrative and governance needs. It's used for the acquisition, processing, dissemination, and reporting of quality education data in a timely, cost-effective and sustainable manner.
<i>Ministry Network</i>	This network connects all offices on a network where they are able to use the Internet and e-mail services as well as to access resources on the network. A number of districts are connected on the wide area network today. They can send and receive information on the network.
<i>ICT Maintenance Facility</i>	This is a support Call or Help desk Center which repairs and maintains ICT equipment and develops the capacity of users to perform preventive maintenance and basic troubleshooting in the ministry equipment. With time, it has developed the capacity of users to handle ICT equipment and carry out preventive maintenance and remedies to equipment failure.
<i>Work-flow Management and Financial planning and Budgeting</i>	A project that improves performance by reducing long cycle of releasing funds within Ministry of Education and Sports, providing interfaces with external parties, ICT skills training, timely delivery of work plans, and enhancing transparency and accountability.

Table 2: Selected Sectoral Cases from Uganda

In respect to the above sectoral cases, we observed that there were apparent signs of changes from the traditional Weberian approaches to a rather seemingly more e-government structure in reference to Ndou (2004) (see, table 1). For instance, in the local government units, Ministry of Local Government (MoLG) has instituted e-government initiatives to prompt changes in the standards and delivery of local government services and, more importantly, in the way citizens interact and participate in governance to improve service delivery country wide. We observed that e-governance was widely perceived as a fundamental tool for minimizing the expenses involved in the local administration of the country's districts, especially in response to high costs and inefficient labour involved in running a government.

We found that the Ministry of Education and Sports (MoES) whose strategic vision for ICT policy is the mainstreaming of ICT in the sector has implemented a number of e-government projects as well. Meanwhile, a draft education sector-specific ICT policy that aims to help coordinate the disparate ICT projects going on within the sector awaits cabinet approval. The policy document hints on a range of issues that need to be addressed in providing a conducive environment from legal and security measures, infrastructure and high costs to curriculum revision and ICT skills training for teachers at different levels. We noticed that the approval of these policy documents and implementation of ICT systems in MoES and MoLG as well have been

imperative in dealing with the voluminous paperwork, long service delivery times, as well as persistent and stifling bureaucracy (see, table 1 for reference).

4.3 Factors that affect ICT Contributions to Public Sector Reform

We identified different factors that affect ICT contributions to public-sector reform in Uganda. Table 3 below presents factors that affect ICT-induced initiatives that are fundamental tools for enhancing public-sector reform in search of excellence. The findings in the table are a result of a combination of interview and observation among the two sectoral cases: Local Government and education (refer to table 2).

Selected Cases	Positive Factors	Negative Factors (Trade-offs)
Local Government	<ol style="list-style-type: none"> 1. Donor support: IICD; DFID; etc. 2. Political good will 3. Decentralized decision making 	<ol style="list-style-type: none"> 1. High bureaucratic procedures 2. Funding routine administrative expenses 3. Low computer literacy levels 4. Poor-grade ICT equipment 5. Shortage of well-trained IT staff 6. Shortage of salaries and benefits in LG 7. Lack of IT training programmes in LG 8. Poverty and other social issues 9. Lack of willingness to adopt e-government
Education Sector	<ol style="list-style-type: none"> 1. Political commitment 2. Political continuity 3. Donor support 4. Mobile network in supporting ICT 5. Conducive environment 	<ol style="list-style-type: none"> 1. High bureaucratic procedures 2. Funds for full-scale implementation 3. Limited IT infrastructures and connectivity 4. Top down ICT projects 5. Lack of local relevant projects 6. Poor IT infrastructure and connectivity 7. Inadequate network capacity/bandwidth 8. Incompatible and complex existing systems 9. Corruption

Table 3: Factors that affect ICT-induced Initiatives

Findings in table 3 above are indicative of the wide gap between policy and implementation. We found that the impressive policy documents and strategies merely repeat general e-government rhetoric and say little about the actual state of implementation. In other words, progress for ICT development within government remains more integrated at the national policy level, than it does with respect to translating that policy to harmonized ICT implementation to stimulate public-sector reform.

The gap between policy and implementation is further widened by the top-down approach among e-government services. All e-government systems mentioned (see, table 2) were largely authored by the donors and engineered by technocrats without the involvement of the intended beneficiaries. There is certainly little emphasis on incorporating cultural and contextual aspects in the design framework of e-government systems.

We also found that the old traditional tendencies remain some of the hardest to wipe out from top to bottom. In relation to the above findings, we observed that most government functions are still performed by vertically integrated bureaucracies functioning pretty much as Weber (1947; 1968) anticipated. We found that public servants were still nostalgic about the Weberian tendencies, a thing that is still holding back progress of ICT implementation.

Other factors identified (see, table 3) such as nostalgia to bureaucratic procedures and the lack of staff's willingness to adopt e-government, limited funding for full-scale implementation and routine administrative expenses, poor-grade ICT equipment, low computer literacy levels and lack of IT training programmes, top down ICT projects, limited IT infrastructures and connectivity, poverty and other social issues, and corruption, present major challenges for e-government practice. Nevertheless, both officials and experts were rather optimistic citing government and political commitment and donor goodwill and support.

5 Discussions

The sectoral case study of MoLG and MoES show similar ICT-induced initiatives geared at public-sector reform. However, the Ugandan e-government experience is somewhat irregular and imperfect given the significant disparities in access to and use of ICTs across the board. In other words, while MoLG and MoES have got advanced systems in place like electronic records processing, databases and information retrieval systems, internal LANs and external networking, (see, table 2) the majority of other ministries are still striving to introduce basic facilities and systems. As such, these cases are only but the exception rather than the rule as Uganda has undertaken only a limited number of ICT related projects (See, Republic of Uganda, 2010, for instance).

The development and integration of ICT within the Government is largely uneven, with the lack of adequate resources to dedicate to ICT programs. As Tarafdar and Vaidya (2006) note, although one can identify at least a dozen e-government initiatives in a single African country, such initiatives are largely still in the *early stage* of ICT adoption, or *established projects* that far exceed their original budgets, often synonymous with unattained goals and sometimes prone to undesirable outcomes. Consequently, a number of initiatives that are instituted and/or publicized turn out to be closed, or to have deteriorated from their stated original goals.

Because the public-sector in Uganda is an establishment of the colonial system of administration synonymous with the bureaucratic tenets of centralization, hierarchical control, and little emphasis on initiative and innovation, expectations are high for e-government to provide immediate results. This, however is unrealistic given the trade-offs that systems have to counter for e-government initiatives to operate smoothly. Key among these is the wide gap between between policy and implementation, and between theory and practice, reflected in table 3. While findings seem to indicate that the government and donors are fully committed to the development of public-sector reform in Uganda (see, table 3), we observed that e-government strategies repeat general rhetoric and say little about the actual state of implementation. Despite their comprehensive implementation countrywide, ICT development within Government remains more integrated at the national policy level than it does with respect to translating that policy to harmonized ICT implementation and operation to stimulate excellence.

This and the other trade-offs, as this paper presents them (see, in table 3), are associated with third-world associated challenges that explain why majority of e-government projects fail to achieve the desired benefits. According to Yayehyirad (2006) for instance, impediments such as limited funding, poor-grade ICT equipment, low computer literacy levels, limited IT infrastructures and connectivity, poverty, and corruption, are synonymous with the African continent where 40 percent of the adult population is illiterate, where PC penetration is the lowest in the world with 2,2 computers per 100 inhabitant, where the Internet tariffs are the highest in the world, where there are only 2,7 telephones per 100 inhabitant, where political instability is widespread, where most governments are autocratic and perceived as corrupt, where the culture of democracy is not fully embraced, and where millions of citizens are not empowered in the decision making processes of their government.

However, while the trade-offs would impel one to arguably question the relevancy of a discourse on the prospects of e-government in Africa, e-government has the potential of reducing or overcoming them. This feature, in fact, is what explains the increasing prominence of e-government across Africa (see, for instance, Nkwe, 2012; Denziger and Andersen, 2002; United Nations, 2008; Heeks, 2002; Kaaya, 2011).

Nonetheless, it would be naive to believe that scientific discoveries such as technology alone can have a uniform effect on the public-sector in all societies. This perception could explain some frustrations in Uganda and other African countries where there has been very little technology-induced development in the public-sector. Indeed, experiences from Uganda are reflective of the salience of institutional and cultural factors in the implementation of ICT-induced initiatives and the consensus view, as this paper perceives it, is that reforming the public service of African developing countries more or less according to 'one-size-fits-all' is rather problematic. A 'one-size' however ideal could have a totally different result, if put in a different 'context'. In fact, it is both self-evident and extremely noteworthy in the case of Uganda. As such, transplanting best practices just because they worked somewhere else is not appropriate. Taking into account Africa's complexity and diversity, specific ICT-induced interventions are required rather than 'one-size-fits-all' approaches to public-sector reform.

6 Conclusions

This paper focuses on Uganda to discuss trends in public-sector reform that lead to contemporary e-government practice in Africa. Notably, findings reveal that leadership in Uganda recognizes e-government as a useful tool for providing efficient and effective services. However, while political leadership has allowed for favorable national ICT policies and the emergence of ICT-induced initiatives, e-government is still far from replacing the *old public disciplines* including public service ethos that remain firmly established even among the sectoral cases highlighted in this paper.

The persistent prevalence of old traditional tendencies is not only an indication but also a statement of the challenge that e-government practice in Africa faces. This, quite arguably, resonates with the fact that only *less* than one third of public-sector reforms attempted in Africa achieve satisfactory outcomes (See, for instance, Guma, 2012). However, while the failure rate of public-sector reforms might seem enough to lead us to negative conclusions, it would be a mistake, to look at e-government in isolation. This might be taken as wishing the problems away, or making them disappear by sleight of hand. It is certainly not offering a solution. Imminent impediments need to be addressed for e-government to succeed. We therefore recommend that imminent impediments are addressed for e-government to succeed.

Most importantly, solutions should be based on an understanding of local needs and conditions of the recipient countries and/or societies as the imperative of local needs in implementing e-government initiatives cannot be understated. In other words, it should be borne in mind that conditions will be different in any local context and that there is no standard ICT performance that cuts across the board. As Brown and Grant (2008) note, it is imperative to address both the macro implications, such as technology colonization, imperialism and cultural erosion, as well as the micro implications surrounding the means by which individuals, organizations and nations tailor their appropriation of western-inscribed technologies to fit with their cultural, political and social environments. In other words, there is urgent need for e-government implementation models authored with strong emphasis on the local content of the recipients.

Ultimately, new discourses around public-sector reforms and ICT contributions need to give, next to technical care, attention to the cultural background of the local recipients. Also, further research on the subject should take a set of case studies and benchmark between them to understand the extent of failure in African countries. More cases among different countries need to be analyzed to pave way for increased generalizability and to further the understanding of Africa's progress in its quest for excellence.

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