CONTEXTUAL FACTORS AFFECTING E-GOVERNMENT STRATEGY IMPLEMENTATION AND ITS IMPACT ON PUBLIC SECTOR PERFORMANCE IN KENYA

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ABSTRACT

This paper assesses the contextual factors affecting the implementation of e-government strategy and its impact on the performance of the public sector in Kenya using the Wing Lam, (2005) E-government Integration Model. Electronic government (E-government) is viewed in this study as the utilization of Information Communication Technologies (ICTs) to transform the efficiency, effectiveness, transparency and accountability of exchanges within government, between government and citizens and businesses locally and abroad; and to empower citizens through access and use of information. Although e-government is a rapidly growing concept in both developing and developed countries very few e-government initiatives progress to maturity. Different countries are faced with different contextual circumstances and environments in the realization of e-government initiatives. This study attempts to address the gap between theory and rhetoric about the potential of e-government and the reality of its application on the ground in Kenya. The study attempts to analyze the philosophy, theories and paradigms of e-government. The development of the commercial concept as a new paradigm in public administration replacing the traditional bureaucratic systems of government is highlighted in the study. A detailed conceptual discussion anchors the study on the Wing Lam, (2005) E-government Integration Model (EGI) basing it on the Kenyan perspective. The study also reviews relevant e-government studies from an international, regional and local perspective anchoring the study on the configuration school of management thought. These discussions are used to develop new insights in view of the emerging issues and their relevance to the public sector in Kenya.

Key Words: E-government, Transformation, Transparency, Accountability, Performance

1 Introduction

Electronic government (E-government) is the utilization of Information Communication Technologies (ICTs) to transform the efficiency, effectiveness, transparency and accountability of exchanges within government, between government and citizens and businesses locally and abroad; and to empower citizens through access and use of information (Gakunu, 2004). Onunga, (2004) describes e-

government as a component of e-governance that is based on three components. These include: Electronic government (e-government), Electronic democracy (e-democracy) and electronic business (e-business). Electronic government is intended to improve the delivery of government services to the citizens using electronic means (Onunga, 2004).

E-government is a concept that emerged in the late 1990s. It is facing demanding opportunities for improving public service delivery to individual citizens. The Internet, the World Wide Web, and other digital apparatus are changing the ways in which business, the public, and government communicate, and altering citizen demand for government service delivery (Council for Excellence in Government [CEG], 2000; Strover & Straubhaar, 2000). Public prospects for swift and convenient service delivery and institutional needs for efficiency are motivating agencies to experiment with e-government ventures (CEG, 2000; Center for Technology in Government [CTG], 1999). Modesitt (2002) and Greeves (2000) are just among a rising number of researchers taking note of government use of the Internet, Geographic Information Systems (GIS), and Web technologies to establish external collaboration, civic engagement, networking, and customer service.

E-government services are undoubtedly increasing. The speed at which the expansion occurs is by the speed at which technical and financial capacities evolve and organizational/ managerial philosophies emerge. There is an increasing emphasis on the importance of knowledge management beyond information system management in both the private and public sectors (Davenport, Long & Beers, 1998). Specifically, the application of advanced information technology to public service has brought new attention to the ability of government agencies to coordinate and enable the creation, integration, management, sharing, and transfer of information within agencies and in governmental networks.

1.1 E-government strategy in Kenya

The e-government strategy in Kenya was approved in January and published in March 2004 as a national framework for delivering 'a better life' through services in a better, convenient, and cost effective way to Kenyans. The e-government strategy is thus linked to the mandate and pledge made by the government to change the lives and livelihoods of citizens for the better. Services envisaged include, among others, the ability of citizens and business to file tax returns and make tax claims

Online, download passport forms online, and for government to undertake police operations online. The overall goal of e-government, as stated in the policy document (Republic of Kenya, 2004) is to make the government more results oriented, efficient, and citizen centered. E-government is supposed to facilitate citizens in order to access government services and information as efficiently and as effectively as possible through the use of Internet and other channels of communication.

The e-government project sought to achieve the following objectives: improve collaboration between government agencies through reduction in the duplication of efforts and through the enhancement of efficiency and effectiveness of resource utilization; improve Kenya's competitiveness by providing timely information and delivery of government services; reduce transaction costs for the government, citizens, and the private sector through the provision of products and services electronically; and provide a forum for citizens' participation in government activities (Republic of Kenya, 2004).

The e-government project strategy for Kenya also outlines activities, and processes critical for the modernization of government regarding these as a means towards the enhancement of transparency, accountability, and good governance. The activities are set within a frame of short, medium, and long term achievable goals. The project strategy recognizes that the effective and efficient realization of e-government objectives depends on the availability of skills and correct attitudes within government. To this end, government personnel at all levels are to be adequately equipped through relevant

training. This approach signals a paradigm shift in government functions and processes through change management. Training is now a pre-requisite for all government staff. On the other hand, to ensure a continued pool of IT knowledge within Government, all training programs for government staff should have an IT component (Republic of Kenya, 2004).

2 Literature Review

This study reviews the literature on the various trends in the evolution of e-government from a local, regional and global perspective.

2.1 Evolution of E-government

Some studies identify the major global trends in social computing/ collaborative computing as they seem to evolve under the 'web 2.0' heading, evaluating possible future trends seen from a technology point of view as well as from a socio-economic perspective and compare these trends to the current state and need for e-Government (Soren Duus, 2009). Finally, some general guidelines, ideas and projections for e-Government are proposed and discussed. The PhD thesis by Dhillon (1995) increases the understanding of the issues and concerns in the management of information systems security. The study was conducted by reviewing the analysis, design and management of computer based information systems.

The research methodology adopted an interpretive mode of large government organizations - a British National Health Service Hospital Trust and inquiry. The management of information systems security was evaluated in terms of the business environment, governmental culture, expectations and obligations of different roles, meanings of different actions and the related patterns of behavior. Findings from the two case studies showed that an inappropriate analysis, design and management of computer based information systems affected the integrity and wholeness of an organization. As a result, the chance of happening of adverse events increases. In such an environment there was a strong likelihood that security measures were either overlooked or are inappropriate to the real needs of an organization (Dhillon, 1995)

The studies conclude that governments require clear financial models in order to undertake investments in their information systems and related processes. However, there are no widely accepted approaches to rigorously articulating the costs and benefits of potential quality improvements to government information. This can result in poor quality government information which impacts on wider governmental goals.

To address this problem, the studies developed and evaluated a framework for producing financial models of the costs and benefits of government information quality interventions. These models were used to select and prioritize from multiple candidate interventions across various government processes and information resources, and to build a case for the government to make the databases.

An investigation into the effects of asynchronous groupware on group-based Government Service improvement efforts is also analyzed by Kock (1997). The asynchronous groupware tool used to support these groups was an e-mail conferencing system. The research found out that website interactivity signifies the level of two-way communication between a government agency and users. Interactivity attributes captured from websites under analysis include hot-linking addresses for easy contact; provision for user searching, downloadable materials or forms; and feedback e.g. feedback forms or provision for electronic submission of downloadable material. Government websites with

these attributes indicate a country is heading towards full implementation of e-Government services and is evolving into advanced stages of e-Government development (Kock and N.F Jr. 1997).

The ethnographic study of military command work by Per-Ame Person (2010) analyses data produced during fieldwork in domestic command post exercises and uses two cases for a closer analysis. The study posits that social value and not only rational control thinking is what counts in command work, a kind of design work, when control artifacts such as information systems are designed. Command work is knowledge-intensive, it designs and produces symbols and becomes highly flexible, involving interpretation and negotiation of its content and products. Knowledge and power, expertise and authority, represented by experts and formal leaders, have to be brought together if the work is to be efficient (Per-Arne Person, 2000).

A detailed investigation into success factors, risks and trade offs in IT outsourcing arrangements, and the impact of certain recommended practices on outsourcing success is critical (Rouse, 2002). It is observed that websites have important links ranging from the official national websites to the multiplicity of links to various government and international institutions. The national official websites were particularly instrumental in providing links to government agencies that constitute the majority of the websites analyzed.

E-government integration is a key factor in achieving a mature level of e-government initiatives (Wing Lam, 2005). This study classifies barriers of e –government integration into four categories including technology, strategy, policy and organization. The study concluded that e-government integration is not only a technical matter of getting IT systems to talk to each other but should also influence strategic planning and change management. The study purposes a model of e-government based on a synthesis of government interrelationships.

The maturity of e-government is measured in terms of its depth of functionality of government websites. Incompatible technical standards, concerns over citizens' privacy and lack of agency readiness to train employees on culture change coupled with an absence of implementation guidelines are some of the factors cited as impediment to adoption of IT in government institutions Golden et al (2003); Koh and Prybutok (2003), Layne and Lee (2001). Government websites are classified as either information, transactional or one stop portal offering a comprehensive menu of services specifically tailored to the profile or the individual. The slow pace of government reforms, absence of e-government champion legacy and lack of in-house management and technical expertise are some of the factors that hinder organizational change within government (Wimmer, 2002)

2.2 Development of E-government in Africa

The development of e-government in Africa is viewed as a foreign concept based on imported designs (Heeks, 2002). This study acknowledges the growing numbers of e-government projects, some of which contribute to public sector reform and delivering gains of efficiency and/or effectiveness across a broad agenda. The study cites this positive picture and its related significant challenges.

Heeks views e-government as slowly diffusing within Africa because of a lack of 'e-readiness for e-government' that can be charted along six dimensions. There is widespread credit that this challenge must be met by strategic building of national infrastructure. The research notes that where e-government projects are introduced, they mainly end in failure; either partial or total. To address this tactical challenge the study concludes that stakeholders must be sensitized to the large gaps that often exist between project design and African public sector reality. These large design reality gaps can be seen to lie beneath failure.

Some studies in E-governance in Eastern and Southern Africa explore the adoption of one of the information and communication technology tools, namely the Internet and, more particularly, the World Wide Web, by eastern and southern African governments as a means of facilitating interactions between the state and its citizens. It is observed that most governments in the region have constructed their own websites, some of which are up to date. English is the most commonly used language to prepare the websites (Omwoyo, 2009)

This paper examines two factors that influence e-government success, viz, service quality dimensions in the online environment; and citizens' attitudes towards e-government and their expectations in respect of government responsibilities in facilitating access and adoption thereof. Based on a literature review, six service quality items fundamental to the success of e-government websites were identified and reported on in WWW (2008). .

The Kenyan experience is well articulated by Okong'o (2008) and IDRC (2008) where both studies show that the following factors are critical to the successful implementation of e-government project: First, senior Management Commitment and Leadership where the senior management provides focus, direction and leadership which are essential for the participation of other government employees in the e-government objectives. The formation of a Cabinet Committee on ICT in Kenya is a case in point. The Cabinet Committee on ICT has shown commitment to key areas of e-government including government-wide ICT infrastructure, cross-ministry cooperation and coordination, integration and sharing of systems, and adherence to standards.

Secondly, the government is poised to make adequate budgetary provisions and forge viable public-private partnership to invest in e-Government projects. United Nations Development Programme (UNDP) and IDRC are among the first development partners to provide financial support to the e-government directorate.

Thirdly, the development of a regulatory framework for public-private partnerships in Kenya is ongoing. Once operational, this will be useful for the implementation and roll-out of e-Government. According to the EUREXEMP's final report, (2004), public-private partnership has been effectively used to implement some e-government projects. The fourth issue is the ICT Personnel: The recruitment, training, re-training and retention of ICT professionals is critical to the success of any e-government strategy. Compensation mechanisms are required to support the recruitment and retention of top level ICT professionals. There is a high turnover of ICT professionals employed by the government in Kenya. Models have to be developed to support and enhance the retention of ICT staff in government (IDRC, 2008). The fifth issue is in regard to management and process re-engineering. The implementation of e-government involves new ways of doing the same jobs and requires that some processes be re-engineered. The e-government directorate for Kenya is developing synergies with the relevant agencies in charge of human resource management and reforms to drive change management as an integral part of the e-government agenda (Okong'o, 2008).

The sixth issue touches on the need for an enabling legislation. According to IDRC (2008), enabling legislation is required to achieve some of the objectives defined in the e-government strategy. These objectives include legislation to support and enable electronic transactions, the use of electronic signatures and authentication as well as legislation to deal with computer security and cyber crimes.

Finally, there is need for monitoring and evaluation. A methodology to monitor and assess progress towards the goals defined in the e-government strategy needs to be articulated, metrics for evaluating strategy implementation developed, discussed, and approved.

The often cited benefits of e-government in a developing country like Kenya include improved efficiency, increase in transparency and accountability of government functions, convenient and faster access to government services, and improved democracy, and lower costs for administrative services (Netchaeva 2002, Silcock 2001). These benefits are realized in the following ways: First, the citizens get connected to the government more easily using electronic means of communication. In turn, efficiency in public service delivery is achieved through faster dissemination government information to a larger audience. Secondly, the cases of corruption are reduced as accountability and transparency is increased. This results from the fact that the physical contacts of the citizens and government service providers are limited and their activities are easily monitored. Thirdly, equal opportunity to access to information is provided regardless of one's physical location and physical disability. The barrier of distance is overcome with diversified service points. Fourthly, the bureaucracy experienced in the government offices is broken because the hindrances caused by those in 'power' are removed and the services are offered regardless of ones background. Finally, interdepartmental exchange of information and merges of related services is enhanced between government agencies. This leads to significant reduction of transaction costs, time, space, and manpower (Netchaeva, 2002; Silcock, 2001; and Kamar and Ong'ondo, 2007).

The trends in current and latent demand as well as future supply of government services, underlying technologies and infrastructures are reviewed by Otike (2010). The study brings together qualitative and quantitative evidence collected with regards to trends, relevant uncertainties, drivers and barriers, and provides criteria for selecting and assessing policy options based on the evidence of supply and demand expectations for government services, and presents relevant policy options. Quantitative data was drawn from an online survey and as available in literature, and complemented by qualitative evidence from interviews and case studies reviewing real practice applications.

ICT current policies and instruments could effectively contribute to delivering services in the education sector and contribute to development in the common wealth (Gichoya 2006).

A generic framework for increasing public participation of E-Government services in Kenya was developed by Odongo (2010). Towards achieving this goal, the research set to investigate the factors that influence E-Government adoption and to explore on what needs to be done to improve adoption.

The issues of internet diffusion, adoption and public participation have been of interest to researchers especially in developing countries. Most of the research in these areas tends to focus more on the challenges to internet adoption using both qualitative and quantitative approaches. The findings of these studies have been critical in guiding the implementation and adoption of e-government services (Okello, 2010).

Although Kenya has made significant progress in technological advancement of e-government services there is need to study the impeding bureaucratic inefficiencies that still impede service delivery today. A generic framework for e-government implementation as suggested by Odongo (2010) may not necessarily apply to the Kenyan situation. This observation justifies the purpose of this study.

2.3 Theories of E-government

The theories of e-governance are basically anchored in the area of Management Information System (MIS) which draws heavily from the study of economics, sociology and computer science. The theory and methods that any e-government researcher will rely on will be determined by the problems being addressed and the context in which the problem arises as noted by Rahul De, (2005)

2.3.1 The Structuralization Theory

The Structuralization theory explains the definition of roles in a social system. This theory posits that from the point of view of any given actor in a social system, there are expectations relative to the behavior of others. The argument is based on a structured social system guided by clear modes of action to positively influence the status of the entire system. The theory states that there is a clear value system that defines the stability of the system based on the expectations and obligations of the actors whose roles are exercised in an orderly environment with respect for authority and rights for each other.

Structurization theory clearly demonstrates the relationship between governments and its citizens whose moral obligation of the government to deliver services to its citizens is well discussed. The institutional functions of government within an environment of law and order are well articulated in this theory. These institutions of government are a manifestation of a common value structure within a society (Talcott Parsons et al. 2006).

2.3.2 Technology Acceptance Model

Technology Acceptance Model (TAM) is defined as an Information Systems theory that models how users come to accept and use technology. The model posits that when confronted with new technology users are influenced by a number of factors about how and when to use it (Davis, 1989). These factors include among others the perceived usefulness (PU) of the technology which explains the degree to which a person believes that using a particular system will improve performance. The second factor explained by Davis, (1989) is the Perceived Ease of Use (PEOU) which explains the extent to which a person believes that using a particular technology is free from effort. The TAM has been continuously revised by notably Venkatesh and Davis, (2000); Venkatesh and Bala, (2008) to include newer versions of TAM such as TAM2 and TAM3.

2.3.3 Diffusion of Innovation Theory

This theory explains how, why and at what rate new ideas and innovations spread through organizational cultures (Everett Rogers, 1962). Diffusion is defined as the process of communicating and integrating technological innovation to members of a social system. Rogers (1962) goes further to classify the adoption of technology into innovators, adopters, early majority, late majority and laggards. Organizations are seen as able to adopt innovation either as a collective effort or through power and authority systems. Power and authority innovation decisions involve individuals with positions of authority in an organization to propel and influence change. The use of champions is highlighted in this theory as a major determinant to ensuring effective and faster adoption of innovation technology. The theory purports that restructuring and redefining of roles and functions in the organization are critical to fostering organizational change and performance.

2.3.4 E-government Integration Model

The E-government Integration Model (EGI) model proposed by Wing Lam, (2005) posits that e-government integration is not only a technical matter of getting IT systems in place but also calls for strategic planning and change management. The model is premised on the levels of government relationships and their respective barriers of integration. The three levels of government relationships are categorized as central government to government agencies (CG-2-GA), government agencies to other government agencies (GA-2-GA) and between government agencies and the end users e.g. the citizens.

2.3.5 Configuration School of Thought

According to Henry Mintzberg, Bruce Ahlstrand and Joseph Lample, the configuration school of management thought describes strategy as a process of transforming the organization through a cognitive process. This is both a prescriptive and descriptive school of management thought appropriate for integrators as well as change agents. It analyses how people perceive patterns and process information and stresses the creative side of the strategic process.

The adoption and integration of IT in government can also be viewed as both descriptive and prescriptive in nature. The paradigm shift in the characteristics and behaviors of organizations as they move from one state to another is viewed as a mental process.

2.4 E-government Philosophy

The underlying philosophies of e-government include the economic social and political science paradigms that explain the governance and democracy. The philosophy of e-government is anchored on the realization that social life is rapidly changing with globalization. Provision of efficient and affordable information through Information Technology has taken centre stage in many governments across the world today.

The predominant bureaucratic systems of government have with time given way to the modern administrative mechanisms of governance (Stefanov, 1976).

Humanity has evolved from the initial agrarian civilization, industrial civilization to a modern super industrial civilization (Toffler 2002). There are three major theoretical domains of e-government which include the political, social and public policy domains, (Wastel, 2003).

The contextual factors that lead to the disparities in the integration of ICT in government functions and processes is an indication that there lacks uniformity in the e-government policy implementation framework (Stichler and Hauptman, 1998) describe ICT as a way of empowerment and a means to create a better world. The study technology helps people to live up their psychological and intellectual potential which optimizes their democratic processes, (Hierscheim and Klein, 1994)

2.5 Paradigms of E-government

The paradigms of e-government include among others the commercial paradigm, government regulatory paradigm and cloud computing paradigm.

2.5.1 The Commercial Paradigm

The use of the commercial paradigm in e-government and e-democracy has been used by many governments to promote the use of ICT for purposes of public administration and delivery of services.

A lot of reference in e-government is drawn from the commercial paradigm where the citizens are given the customer focus (Bernd Carsten, 2005). The e-commerce paradigm has led to the development of many business models in the world today. E-commerce is basically defined as the buying and selling of goods and services or other commodities through the use of ICT (Currie, 2000).

With the increased internet usage, e-commerce has brought about new forms of competition in the business world.

The interaction between buyers and sellers of goods and services in the global arena is more efficient as online databases and web-based companies transact through the internet and other related technologies, (Stichler, 1998).

There are many advantages that can be attributed to the use of e-commerce concept in government. These benefits can be attributed to reduced costs of doing business as opposed to other traditional exchanges. Cost savings in business can also be achieved through reduced transaction and information processing (Shin, 2003).

2.5.2 E-government Regulatory Paradigm

The new e-government regulatory paradigm views governments as charged with the responsibility of regulating e-commerce, maintaining citizen privacy rights, managing intellectual property rights, facilitating security of computer systems and developing consistent regulatory frameworks that can be harmonized with other governments (Hoffman 2011) There is need for governments to protect the citizens against fraudulent e-commerce schemes such as pyramid schemes, gambling and international lottery schemes, investment, credit and security scams, online auctions and erotic services all available on the internet.

Data privacy is a growing concern to internet users globally. Some of the citizens' fears and concerns on privacy as they provide their biodata to access online government services may slow the growth and adoption of e-government initiatives (Hart Teeter, 2001).

2.5.3 Cloud Computing Paradigm

The cloud computing paradigm provides a convenient pay-per-use model enabling online access to a shared pool of configurable computing resources such as networks, servers, applications and other IT services on a need basis as stated by Arvind Bhisikar et al (2011). This new paradigm of e-government provides a large eco-system comprising of many models, vendors and market niches that allows users to access tailor made computing solutions. Through cloud computing governments can procure software and other IT infrastructure on demand thus avoiding unnecessary investments, (Guru Malladi et al (2009).

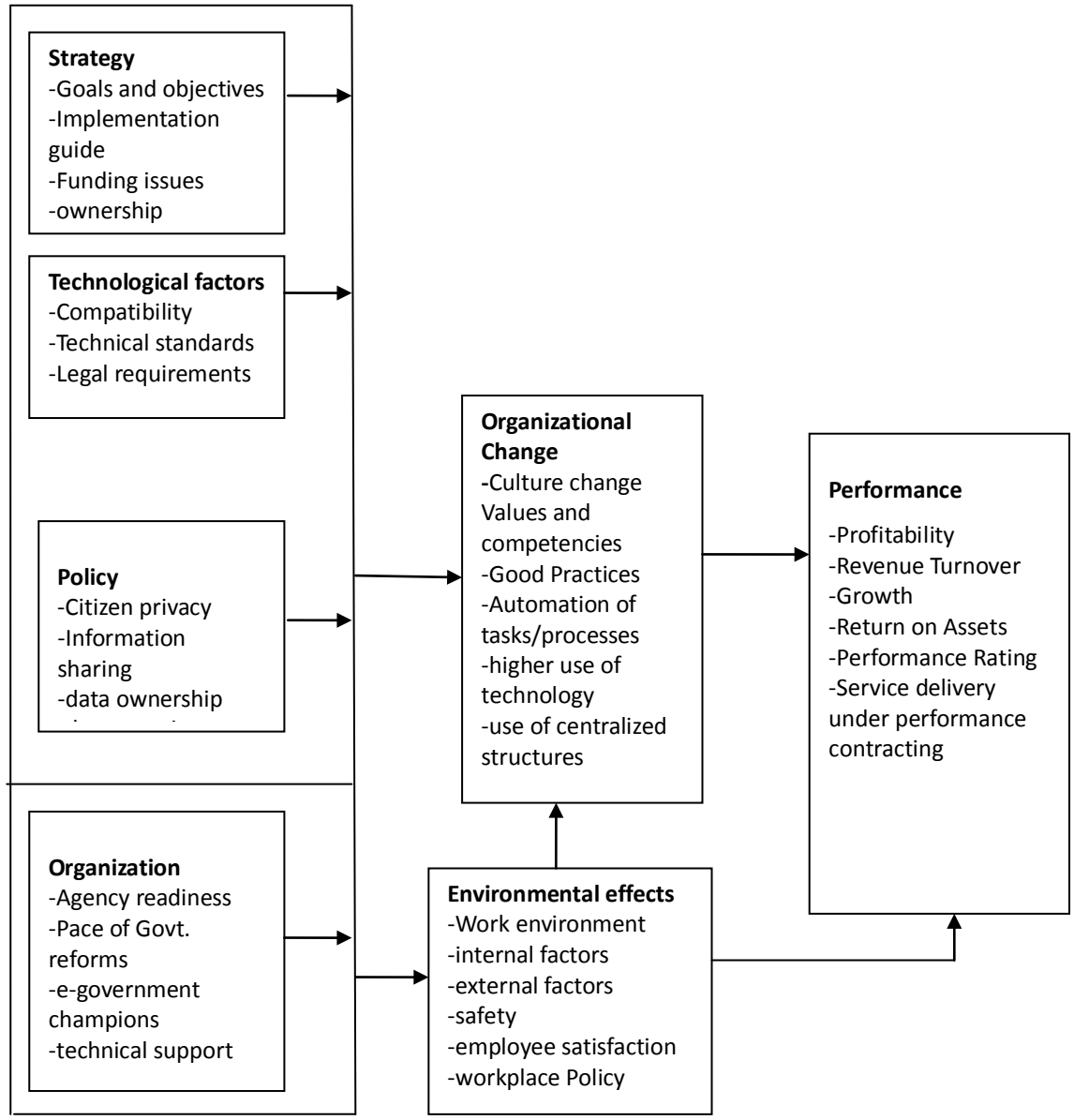
E-government is viewed as a dynamic on-going process subjected to rapid changes based on experiences developments and policy setting. Indicates that there is need to understand public sector culture and come up with a public sector model for organizational change (Blakemore, 2010)

2.6 Conceptual Framework

This study is based on E-government Integration Model (EGI) adopted from Wing Lam (2005). The independent variables are classified into strategic, policy, technological and organizational factors that influence successful implementation of e-government initiatives aimed at enhancing public sector performance in Kenya. The performance of public sector institutions is viewed as interplay of ICT

enabled tasks and processes within an established e-government framework. Policy and strategy related factors coupled with organizational and technological issues are likely to determine the success of e-government initiatives aimed at enhancing performance of Public sector institutions. This study intends to determine the contextual effects of the above factors affecting the successful implementation of e-government initiatives in the perspective of the Kenyan public secto

Contextual Factors Affecting e-Government Strategy Implementation



3 Conclusion

The issues of strategy, policy, technology and organizational aspects form the basis of analysis in this study to evaluate their influence on the implementation of e-government initiatives in Kenya today. The potential of Information and Communication Technology to transform governance is well underscored in this paper giving suggestions to address the contextual factors affecting the success of these initiatives towards sustainable organizational change and enhanced performance of the Kenyan Public sector.

The study paper further acknowledges that although there is good performance on the level of internet diffusion in Kenya there is need to address the critical role of government in executing the implementation of e-government initiatives within the public sector. The development of a generic e-government strategy may not critically address the unique contextual factors that are inherent in the Kenyan public service. This realization calls for an investigation into the underlying issues affecting the roll-out of e-government services in Kenya.

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