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Adoption of E-government in Nigeria to enhance Government–Citizen Communication and Participation of the Grassroots/Local councils

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ABSTRACT

Governments the world over have embraced the use of information technology to automate processes to simplify their operations. Nigeria is no exception to this trend. E-government (electronic government) is used by government agencies on the platform of information technologies (such as the internet) to conduct interactions with citizens, with businesses and with other arms of government. It also makes available services to other countries of the world using online communication. The growing trend of e-government by countries of the world and its transformative effects on their economies focused more on service delivery and information provision. This study explores e-government in the grassroots/local council with a view to enhancing government – citizen communication and participation in policy making. More specifically, it considered the use of social networking sites. The result indicated a closer communication gap between government and communities thereby encouraging greater community participation and rural development. Some examples of countries which have already explored and implemented e-Government initiatives are United States of America, United Kingdom, Kenya, South Africa, Argentina, Brazil, Chile, China, Colombia, Guatemala, India, Jamaica, and the Philippines. Changes associated with e-government adoption by countries include increased economic development, increased transparency in governance, openness and the rule of law and the barriers preventing such adoption are ICT infrastructure (e-readiness, computer literacy, telecommunication equipment), policy issues (legislation), human capital development and life-long learning (skills, capabilities, education, learning), change management (culture, resistance to change), partnership and collaboration (public/private partnership, community and network creation), strategy (vision, mission), leadership roles (motivate, involve, influence, support). Recommendations were highlighted to help developing countries move forward with offering e-Government services at the local councils.

Keywords: Adoption, E-government, Grassroots/Local councils, Information and Communication Technologies (ICTs)

INTRODUCTION

The concept of e-government has been around since the 1990s, when the use of ICTs began to be seen as a policy strategy appropriate for improving the effectiveness of public authorities' operations and service delivery [1]; [2]. E-Government is a global trend and phenomenon undertaken by many governments worldwide. Industrialized and developing countries have been initiating E-Government strategies and projects through the use of Information and Communication Technology (ICT) in general and E-Government in particular. ICTs offer governments an effective resource to serve citizens and other stakeholders through electronic-government ("e-Government") strategies in very exciting ways. ICT strengthens the role of each governance pillar in rural development and poverty reduction. It facilitates speedy, transparent, accountable, efficient and effective interaction between the public, citizens, business and other agencies. This not only promotes better administration and better business environment, but also saves time and money in transactions costs of government operations (IICD, 2001). The

need for such improvements have been particularly profound at the local level of government: local governments have – as a result of the process of decentralization that has taken place during the last couple of decades – been provided with a broader scope of responsibilities and increased independency [3]; [4]. Consequently, local authorities' affairs have become increasingly complex: they face new demands to coordinate and manage new types of processes and increasing amounts of information, while still having to cope with a compartmental structure and rather slow decision making processes [5]. Many local authorities have therefore greeted the phenomenon of e-government with a particularly warm welcome [6]. The day-to-day business of government is built on information. Information is a critical resource that helps to ensure the accountability of government, enables governments to manage its operations, and allows the public to participate in the governance of their country.

Citizen feedback to government provides a check on bureaucratic abuse and corruption, alerts the government to citizen's needs and concerns, and gives citizens a sense of having a voice in society [7]. Governments worldwide are integrating computer-based technologies into the centerfold of public administrative reforms to digitize the delivery of services and the process of governing. E-Government relies on ICTs to automate the processes to serve citizens, businesses, governments, and other constituents particularly through the Internet and the World Wide Web. The World Summit on the Information Society declared in the Geneva 2003 Plan of Action that all countries should aim "to connect all local and central government departments and establish websites and email addresses" [8]. E-Government is more than just putting in new computer systems. Rather, e-Government also involves complimentary changes to administrative practices and business processes (National Research Council, 2002). The aim of this paper is the use of e-government using social networking sites in closing the gap between government and local councils of Nigeria in policy formulation and implementation, opportunities and challenges that e-Government initiatives present. It went further to highlight the classifications of e-government and cited some countries implementing it.

The initiatives of government agencies and departments to use ICT tools and applications, internet and mobile devices to support good governance, strengthen existing relationships and build new partnerships within civil society, are known as e-Government initiatives. As with e-commerce, e-Government represents the introduction of a great wave of technological innovation as well as government reinvention. It represents a tremendous impetus to move forward in the 21st century with higher quality, cost effective government services and a better relationship between citizens and government [9]. Many government agencies in developed countries have taken progressive steps toward the web and ICT use, adding coherence to all local activities on the Internet, widening local access and skills, opening up interactive services for local debates, and increasing the participation of citizens on promotion and management of the territory [10].

The terms digital government, electronic government (e-Government) and electronic governance (e-Governance) are used interchangeably to represent the use of information and communication technologies in public sector organizations. The terms are very closely related, which causes confusion. Governments serve multiple roles – they provide services; they govern (e.g. set, monitor, and enforce standards within systems); and, they serve the public by governing. Because of this, the terms are often used interchangeably. Here, the three terms are distinguished in the following way:

- Digital government refers to the "umbrella term that comprises all uses of information and telecommunication technologies in the public sector" (Garson, 2006).

- E-Government is one aspect of digital government. E-Government refers to the provision of governmental services by ICTs, particularly over the Internet.
- E-Governance refers to the use of ICTs for organization of political activity within and beyond nation states. E-governance "is one of a wide range of competing terms pertaining to use of new communications technologies, such as the Internet and mobile telephony, for political and governmental purposes. Other widely used terms that have overlapping meaning include: electronic democracy (e-democracy), online democracy, cyber-democracy, virtual democracy, online governance, tele-democracy, e-participation and e-deliberation" [11].

Definition of E-Government

E-government is a form of e-business in governance and it refers to the processes and structures needed to deliver electronic services to the public (citizens and businesses), collaborate with business partners and conduct electronic transactions within an organizational entity.

E-Government is defined as -: the use of information and communication technologies in government to provide public services to improve managerial effectiveness and to promote democratic values and mechanisms; as well as a regulatory framework that facilitates information intensive initiatives and fosters the knowledge society [12]. E-Government is broadly defined because governments themselves serve multiple roles. By using ICTs in this way, governments expect to improve the quality of services and reduce the costs of delivering services. Other e-Government goals are to improve the utilization of scarce resources, enhance accountability and transparency, expand the role of markets, and restore citizen trust and faith in government.

Other perspectives view e-government as:

1. The electronic interaction (transaction and information exchange) between the government, the public (citizens and businesses) and employees (Abramson and Means, 2001).

2. The government owned or operated systems of information and communication technologies that transform relations with citizens, the private sector and/or other government agencies so as to promote citizens' empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency [13].

3. The transformation of public sector internal and external relationships through net-enabled operations, IT and communications, in order to improve: Government service delivery; Constituency participation; Society [14].

4. An internet-worked government which links new technology with legal systems internally and in turn links such government information infrastructure externally with everything digital and with everybody – the tax payer, suppliers, business customers, voters and every other institution in the society [15].

5. The public sector's use of the most innovative information and communication technologies, like the Internet, to deliver to all citizens improved services, reliable information and greater knowledge in order to facilitate access to the governing process and encourage deeper citizen participation [16].

E-government is defined by the OECD as "the use of information and communications technologies (ICTs), and particularly the Internet, to achieve better government" (OECD The e-Government Imperative, 2003). This definition focuses attention on why countries are implementing e-government rather than on the ICT tools themselves. They realized that e-government goes beyond the simple exercise of putting information and

services online, and it is used as a powerful instrument to transform the structures, process and culture of government and make it more efficient, user oriented and transparent.

Types and Inter-relationships in e-Government

The different types of e-government are based on using ICT to facilitate relationships between government and other key stakeholders. The target is on four main groups: citizens, businesses, governments (other governments and public agencies) and employees. The electronic transactions and interactions between government and each group constitute the e-government web of relationships and the respective four main blocks of e-government, that are:

1. Government to Citizens (G2C)
2. Government to Business (G2B)
3. Government to Government (G2G)
4. Government to Employees (G2E)

1. Government to Citizen: deals with the relationship between government and citizens. It is a citizen-centric when governments take further steps to provide online services organized around citizen needs. E-Government allows government agencies to talk, listen, relate and continuously communicate with its citizens, supporting, in this way, accountability, democracy and improvements to public services. A broad array of interactions can be developed ranging from the delivery of services and the provision of welfare and health benefits to regulatory and compliance oriented licensing [17]. G2C allows customers to access government information and services instantly, conveniently, from everywhere, by use of multiple channels (PC, Web TV, mobile phone or wireless device). It also enables and reinforces their participation in local community life (send an email or contribute to an online discussion forum).
2. *Government to Business*: consists of the electronic interactions between government agencies and private businesses. It focuses on strategies using ICTs to facilitate government interactions with the private sector to procure goods and services and to coordinate transactions from private companies. It allows e -transaction initiatives such as e -procurement and the development of an electronic marketplace for government [18]. Because of the large number of purchases that governments make from the private sector, there is a need to develop faster and more cost-effective routines to handle the typical procedures for procurement. The typical tasks include: material planning, sourcing, purchasing and contract management [19]. E-procurement systems provide electronic catalogs or marketplaces to streamline online ordering and payment, announce calls for tender through electronic tendering solutions, and support online bidding [20]. Governments put e-procurement systems in place to improve document management, reduce costs, reduce processing times, improve access to markets for goods and services, and increase transparency of public decision-making.

3. *Government to Government*: refers to the relationship between governmental organizations, as for example national, regional and local governmental organizations, or with other foreign government organizations. Governments depend on other levels of government within the state to effectively deliver services and allocate responsibilities [21]. In order to realize a single access point, collaboration and cooperation among different governmental departments and agencies is compulsory. Online communication and cooperation allows government agencies and departments to share databases, resources, pool skills and capabilities, enhancing the efficiency and effectiveness of processes.

4. *Government to Employees*: refers to the relationship between government and its employees. G2E is an effective way to provide e-learning, bring employees together and to promote knowledge sharing among them. It gives employees the possibility of accessing relevant information regarding: compensation and benefit policies, training and learning opportunities, civil rights laws, etc. G2E refers also to strategic and tactical mechanisms for

encouraging the implementation of government goals and programs as well as human resource management, budgeting and accounting [22]. The full exploitation and implementation of these complex webs of inter-relationships requires three main application domains for e-Government [23]

E-Administration – for automation and computerization of administrative tasks and for realization of strategic connections among internal processes, departments and functions.

E-Citizens and e-Services – to realize connections and interrelationships among governments and citizens and to deliver automated services.

E-Society – to enable relationships and interactions beyond boundaries, among public agencies, private sector and civil community in general.

Phases of Adoption of E-Government

The level of e-government development is classified along five levels: Emerging, Enhanced, Interactive, Transactional, and Connected [24]. At the most basic level, Emerging and Enhanced, e-Government activities focus on publishing basic information on the web. At intermediate levels, Interactive and Transactional, governments use websites to support two-way communication, process transactions online, and aggregate content and services through portals. At advanced levels, connected, governments use the web to integrate services across ministries, provide tools for public feedback and deliberation and customize the web visit for each user through personalization technologies and push technologies.

Emerging Stage: This is the first level of e-government development process. According to the study conducted by the American Society for Public Administration [25] aimed to categorize the progress made by developed and developing countries in developing an online presence, it revealed that nearly all 32 countries at the Emerging Presence level were among the world's least developed nations. This stage is characterized by static and insufficient information that is infrequently updated, few interactive features, and little or non-existent online services. Visitors to the web site can access information, official documents, download forms, and contact government officials through e-mail. The site provides such basic information about the agency as the type of services provided, hours of operation, contact information, location of offices, and links to policies and procedures.

Enhanced Stage: This second level the e-government strategy focuses on implementing channels for individuals to communicate with government officials, search for information and services. There is typically a full landscape of sites for each public organization. The user can access web features that provide greater interaction between citizens and different government agencies.

Interactive Stage: In this third phase governments use a web portal to deliver a wide variety of services and content. Typically, a web portal serves as the gateway to the e-Government services and contains links to the different branches of government. The web visitor is able to access important information and offer features to download forms and retrieve data from agency databases that once required in-person visits to government offices.

Transactional Stage: The fourth stage which is the transactional stage e-government strategies focus on features that allow individuals to perform such transactions electronically as making payments, filling out and submitting applications, or renewing licenses. Many of the developing countries have initiated national e-government strategies to add more self-service applications online. For example, in such countries as Pakistan and India users can go online to pay utility bills, file and pay taxes (e.g. federal excise tax, income tax, sales tax). The applications connect the user directly to backend transaction processing

systems. The online services provide access 24 hours a day, 7 days a week.

Connected (Seamless) Stage: In this fifth stage government operates a full integrated ICT infrastructure to make-up an enterprise architecture. Government processes are seamless. Data can be shared horizontally with other ministries or vertically between different levels of government or between external constituents. This phase includes integration across government agencies, between central and regional and local governments, and across sectors. Citizens have access to all levels of government in a transparent fashion. Governments measure the performance and quality of service and evaluate how well its ministries are doing to provide e-Government services. Tools such as customer relationship management software are used to enhance the user experience for citizens. There is the integration of Web 2.0 features such as blogs, wikis, and RSS feeds in this stage to enhance information sharing and collaboration as a way to support greater citizen participation in government decisions.

The prevalence of stages 1 and 2 among developing countries can be explained by the fact that the adaptive challenges of e-Government go far beyond technology: they call for organizational structures and skills, new leadership forms, and the transformation of public-private relationships [25].

The Transactional stage and in particular the Seamless stage were seen as very distant points for both developed and developing countries, with a few exceptions (Singapore, UK) [26].

Paradigm Shifts in the Public Sector

With the explosion and use of e-commerce and e-business models in the private sector through the advent of the Internet, digital connectivity, pressure is on the public sector to rethink hierarchical, bureaucratic organizational models. Customers, citizens and businesses are faced every day with new innovative e-business and e-commerce models implemented by the private sector and made possible by ICT tools and applications, are requiring the same from governmental organizations. [27] referred to citizens as customers for governments, since governments need to empower rather than serve, to shift from hierarchy to teamwork and participation, to be mission oriented and customer focused, and to focus on prevention rather than cure. Governments worldwide are faced with the challenge of transformation and the need to modernize administrative practices and management systems [28]. [29] argue that ICT causes a “paradigm shift” introducing “the age of network intelligence”, reinventing businesses, governments and individuals. Paradigm shifts prevail in the public sector too. The traditional bureaucratic paradigm, characterized by internal productive efficiency, functional rationality, departmentalization, hierarchical control and rule-based management [30], is being replaced by competitive, knowledge based economy requirements, such as: flexibility, network organization, vertical/horizontal integration, innovative entrepreneurship, organization learning, speed up in service delivery, and a customer driven strategy. These new paradigms thrust the shift toward e-Government paradigm, which emphasizes coordinated network building, external collaboration and customer services [31].

Paradigm shifts in public service delivery

	Bureaucratic paradigm	E-Government paradigm
Orientation	Production cost-efficiency	User satisfaction and control, flexibility
Process organization	Functional rationality, departmentalization, vertical hierarchy of control.	Horizontal hierarchy, network organization, information sharing.
Management principle	Management by rule and mandate	Flexible management, interdepartmental team work with central coordination
Leadership style	Command and control	Facilitation and coordination, innovative entrepreneurship.
Internal communication	Top down, Hierarchical	Multidirectional network with central coordination, direct communication.
External communication	Centralized, formal, limited channels	Formal and informal direct and fast feedback, multiple channels
Mode of service delivery	Documentary mode and interpersonal interaction	Electronic exchange, non-face to face interaction
Principles of service delivery	Standardization, impartiality, equity.	User customization, personalization

Table 1 – Reinventing Local Governments and the e-Government Initiative (Ho, 2002)

E-Government Initiatives in some Countries

South Africa – Formulating IT Policy to transform Government into e-Government (Type e-Government / G2C). The South African government is formulating an IT policy with government-to-citizen communications as the main objective. The goal is to provide communications to citizens in remote villages as well as to those in larger towns and cities. This is a technology opportunity, despite the low levels of Internet access in rural areas of Africa.

*India - Use of Information Technology for Delivering Quality Health Care to the Rural Population. (Type / G2G)*In India an e -governance project has been started that will help to reduce or eliminate the redundant entry of data prevalent in paper registers, automatically generate Auxiliary Nurse Midwives' (ANM) monthly reports, and make data electronically available for further analysis and compilation at higher levels of the health care system. It will train the health workers in the use of Personal Digital Assistance (PDA) to process data with ease. The PDAs are designed to cater to the semi-literate levels of the health workers. The 40-60% reduction in time for the health workers to process the data can be used to deliver quality health care. On successful completion, the project will be extended to different sites in other districts of these states and eventually to the national level.

Cuba –InfoMed health system (Type G2G) Cuba's economic difficulties placed a severe strain on the country's health system. As one of the steps undertaken to maintain the standards of health care in conditions of lack of all kinds of resources, a national network of the public health system called 'InfoMed' was launched. Since the country lacked an information infrastructure at the time, InfoMed began as a simple sharing of knowledge and facilitating access to health-related information via e -mail, with minimal commitment of resources. Since that time, the network has expanded to reach nation-wide coverage with regional and provincial nodes and

led to broader applications, especially in the area of education. The successful experience of building and using InfoMed demonstrated the value of ICT for national development.

Peru - Information System for Rural Development (Type / G2G, G2B)
The goal of this Peruvian project is to reduce poverty and isolation, enhance productive activities, and make local government more efficient in two provinces of Cajamarca-San Marcos and the Jequetepeque Basin. To this end, an information system is being designed and implemented with the support of the local producers' association and two local governments. Testing of the information system includes the users (local producers and authorities), public institutions (municipalities) and private institutions (producers' association) and examines the appropriate processes for the collection, processing and delivery of information; the use of information technology; and the corresponding infrastructure necessary to develop and use the system.

Gabon - Website of the Gabonese Ministry for Water, Forests, Fisheries, Environment and Protection of Nature (http://www.gabon-forests.org/) (Type / G2C, G2G)
In pursuit of the policy of the Gabonese government to communicate to a wider audience about its initiatives in the area of forestry and the environment, the website of the Gabonese Ministry for Water, Forests, Fisheries, Environment and Protection of Nature (responsible for reforestation) was officially launched. The Forest Environment Project of the Ministry for Water and Forests implemented this Internet site.

The Case for E-Government in the Local Councils of Nigeria
The World Summit on the Information Society declared in the Geneva 2003 Plan of Action that all countries should aim "to connect all local and central government departments and establish websites and email addresses" (WSIS, 2005). E-Government is more than just putting in new computer systems. Rather, e-Government also involves complimentary changes to administrative practices and business processes (National Research Council, 2002).

Cost Reduction and Efficiency Gains: Researchers [32]; [33]; [34] agree that ICT has considerable potential to contribute to efficiency gains and cost reductions for private organizations. Furthermore, these benefits constitute a major aspect of e-Government initiatives. Putting services on-line substantially decreases the processing costs of many activities compared with the manual way of handling operations. The appropriate application of ICT may possibly reduce the number of inefficiencies in processes by allowing file and data sharing across government departments, thereby contributing to the elimination of mistakes from manual procedures, reducing the required time for transactions. Efficiency is also attained by streamlining internal processes, by enabling faster and more informed decision making, and by speeding up transaction processing. The issue of ghost workers will be eliminated.

Countries of the world implementing e-government have identified a number of reasons for embracing e-government as a means of reforming public administration and achieving broader policy objectives. E-government can help improve efficiency in government and improve online access to information and service quality, enabling the delivery of services to citizens and businesses on their terms and at their convenience, rather than following the logic of internal government structures.

E-government acts as a driver in speeding organizational change, including facilitating greater teamwork, flexible working arrangements and remuneration, and enhanced knowledge management practices. E-government can also help build trust between government and citizens, by enabling citizen engagement in the policy process, promoting open and accountable government, and helping to prevent corruption.

E-government can help achieve specific outcomes in key policy areas (e.g. online information can help boost use of an educational or training programme) and ICT is expected to contribute to broad policy objectives (e.g. the use of ICT can contribute to other economic policy objectives by reducing government expenditures through more effective programmes, improving business productivity through administrative simplification, and promoting the information society and ICT industry).

E-Government helps to increase the transparency of decision-making processes. In many cases e-Government offers opportunities for citizens to directly participate in decision-making, by allowing them to provide their own ideas and suggestions in forums and on-line communities. If web sites are designed carefully and openly, they will serve as valuable resources for transparency as citizens, businesses and other stakeholders should be able to see political and governmental information, rules and policies. Previously it was often necessary to go directly to governmental offices to obtain information, but now this information should be available on the web. The availability of a diversity of publications regarding the activities of the public administration, as well as economic and legislative aspects, increases the transparency too.

E-government will help to improve the quality of decision making. Community creation, forums, continuous interaction and communication between government and its citizens contribute further to the decision making process. By means of active participation in political and government discussions, citizens can contribute their own ideas, and share their knowledge and information. This will in turn lead to building trust in government and improving the relationships between the government and the governed. The OECD argues that the strengthening relationship between government and citizens could improve the quality of services by allowing government to tap wider sources of information, perspectives and solutions to meet the challenges of policy making under conditions of increased complexity [35].

ICT can strengthen the role of each governance pillar in rural development and poverty reduction. It can facilitate speedy, transparent, accountable, efficient and effective interaction between the public, citizens, business and other agencies. This not only promotes better administration and better business environment, but also saves time and money in transactions costs of government operations [36].

Various other examples show the great potential of e-Government in developing countries to help people develop their full potential and lead productive and creative lives in accord with their needs and interests. E-Government is being used to make it easier for people to lead healthy lives, experience life-long learning, and access resources to sustain a reasonable standard of living. E-Government also facilitates the ability for individuals to participate in the life of their society, government and community. For example, rural farmers in India can get fair prices for their crops with instant access to prices through kiosks, school age children in Kazakhstan expand learning options by connecting to instructors in the urban centers through distance learning, and rural villagers in Rwanda can access government services through the e-Rwanda initiative.

Social Networking Sites as supporting Tool for Local Management

Web-based technologies in which the social networking sites are a part play an increasingly significant role in our day-to-day lives. They have fundamentally transformed the technological, economic, political and social landscapes.

It is now growing more common for governments to use websites to enable visitors to go online to get government information, file and pay taxes, register automobiles, access vital records, communicate with government officials, and participate in decision-making. The impact of the information era in government can be witnessed in the increasing governmental movement to web-based information, services, and

transactions, as evidenced by recent national surveys [37]; [38].

Social networking sites are websites that function as online communities of users. These communities are defined by common interests such as hobbies, professionals, or schools. Users visit them to socialize, participate (such as voting for a favorite online article), converse (posting a comment), share (creating and posting material to a blog or to sites), collaborate (creating content with other members of a group), link up (forming social networks with friends and those with similar interests on sites). Nearly 17% of all online minutes across all platforms are devoted to social networking sites (com Score, 2012). They include MySpace, Facebook, LinkedIn, Twitter and so on. The most elaborate social networking sites Facebook have more than 500 million users and Twitter with over 75 million user accounts. All of the social networking sites provide a variety of communication and sharing tools and many encourage users to develop applications that make the sites more useful to participate. Here, the government can tap into this by incorporating these features in the government websites. The 2008 presidential campaign of candidate Barack Obama relied on social media. A website, my.barackobama.com was created that encouraged people to post blogs and link with other supporters (more than 2 million did); he also accumulated nearly a million MySpace friends, placed videos on YouTube, and started his own photo stream on Flickr. After his election, he continued to rely on social media with a new web site, Change.gov, where people shared their opinions about important issues.

E-Government represents the introduction of a great wave of technological innovation as well as government reinvention. It represents a tremendous impetus to move forward in the 21st century with higher quality, cost effective government services and a better relationship between citizens and government [39]. Many government agencies in developed countries have taken progressive steps toward the web and ICT use, adding coherence to all local activities on the Internet, widening local access and skills, opening up interactive services for local debates, and increasing the participation of citizens on promotion and management of the territory [40]. The use of social networking sites on local government will concentrate on:

- Prompt, accurate service
- Improved quality of service
- Removing barriers and tackling social exclusion
- Local access points

Today, these services appear in various shapes and forms. Typical applications (within both local and national governments) can include: providing access; connecting to a service or a process; facilitating consultation; and enabling active citizen participation.

Barriers to the Adoption of E-Government

There are several challenges and barriers that can delay progress of e-government implementation. The multi-dimensionality, variety and complexity of e-government initiatives implies the existence of a wide range of challenges and barriers to its implementation and management. Political-administrative, infrastructural, demographic, social, and economic factors are especially relevant in encouraging or hindering E-Government [17]. The barriers are:

ICT Infrastructure

ICT infrastructure is recognized to be one of the main challenges for e-Government. Internetworking is required to enable appropriate sharing of information and open up new channels for communication and delivery of new services [18]. For a transition to electronic government, architecture, that is, a guiding set of principles, models and standards, is needed. The development of basic infrastructure to capture the advantages of new technologies and communications tools is essential for implementing e-Government. Different access methods, such as remote access by cellular phones, satellite receivers, kiosks, need to be taken into consideration by governments in order

that all members of society can be served irrespective of their physical and financial capabilities. However, an ICT infrastructure does not consist simply of telecommunications and computer equipment. E-readiness and ICT literacy are also necessary in order for people to be able to use and benefit from e-Government applications. Having the education, freedom and desire to access information is critical to e-Government efficacy. Presumably, the higher the level of human development, the more likely citizens will be inclined to accept and use e-Government services.

Policy Issues

Processing of e-Government principles and functions requires a range of new rules, policies, laws and legislative changes to address electronic activities including electronic signatures, electronic archiving, freedom of information, data protection, computer crime, intellectual property rights and copyright issues. Dealing with e-Government means signing a contract or a digital agreement, which has to be protected and recognized by a formalized law, which protect and secure these kinds of activities or processes. In many developing countries, e-business and e-Government laws are not yet available. Establishing protections and legal reforms will be needed to ensure, among other things, the privacy, security and legal recognition of electronic interactions and electronic signatures. Hence, governments all over the world need to tackle the design and development of a public key infrastructure, which will guarantee secure transactions between organizations and individuals.

Human Capital Development and Life Long Learning

A major challenge of an e-Government initiative is the lack of ICT skills in the public sector. This is a particular problem in developing countries, where the chronic lack of qualified staff and inadequate human resources training has been a problem for years (UNPA&ASPA, 2001). The availability of appropriate skills is central for successful e-Government implementation. E-Government requires hybrid human capacities: technological, commercial and management. Technical skills for installation, maintenance, designing and implementation of ICT infrastructure, as well as skills for using and managing online processes, functions and customers, are necessary. To address human capital development issues, knowledge management initiatives are required focusing on staff training, seminars, workshops in order to create the basic skills for e-Government handling.

In general, in almost all cases the focus on training and education programs was a paramount phase for the assurance of project endurance. However, the human capability development doesn't end up with the acquisition and achievement of basic initial skills. Instead, lifelong learning is an essential prerequisite as the rate of change increases and new technologies, practices and competitive models emerge. The full economic benefits of IT depend on a process of social experimentation and learning, which is still at an early stage [36].

Change Management

Change management issues must be addressed as new work practices, new ways of processing and performing tasks are introduced. E-Government correctly designed doesn't simply save costs and improve service quality; instead it revolutionizes and reinvents the government processes and functions. Change management can be divided into two sub-concepts: Change Management Approach and Management of Resistance to Change. Change management approach refers to the change management procedures established within organizations. [4] identifies culture as the primary driver of strategic organizational change. Being aware of an organization's culture is already a big step towards a higher capacity to change [11]. Hierarchy is the most traditional of cultural values of a government bureaucracy, in many ways its defining feature. In particular, intranets and the sharing of information throughout organizations can challenge hierarchies and can only really benefit an organization that develops a more networked approach; ICT is distinguished by its network character

(Dutch ICT and Government Advisory Committee, 2001). Employee resistance to change is still the biggest barrier to successful change. Employees fear changes in general and ICT applications in particular as they believe that ICT would replace them and so cause job losses. Moreover, it is very difficult in a short time to turn off traditional methods of working and learn new ones. Addressing resistance successfully means ensuring the existence of incentives for employees to learn and change and the establishment of well-structured plans that embrace employee participation throughout all stages of a change process.

Strategy

One of the main challenges for an e-Government project is the establishment of an appropriate and context tailored strategy. Every project or initiative needs to be rooted in a very careful, analytical and dynamic strategy. This seems to be a very difficult task, requiring a focus on many aspects and processes, a holistic vision, long-term focus and objectives. Many public institutions limit their activities to a simple transfer of their information and services online without taking into consideration the re-engineering process needed to grasp the full benefits. The government must have a clear strategy to overcome the barriers to change. Part of the strategy is to engage in a rigorous assessment of the current situation, the reality on the ground and the inventory of projects, articulate costs, impacts and benefits of programme as well as continuously monitor and evaluate the project upgrading. Borrowing a lesson from the private sector, e-Government must be customer-driven and service oriented, meeting the needs of citizens and improving the quality of life. This means that a vision of e-Government implies providing greater access to information as well as better, more equal services and procedures for public and businesses. Even when e-government projects seek to improve internal government processes, the end goal should be making government serve citizens better. This means recognizing the diverse roles that citizens can play as partners, taxpayers, constituents, employers, employees, students, investors and lobbyists.

Leadership Role

The public sector presents unique challenges for leadership. Changing and hazy visions confuse expectations for reforms and leaders [23]. Leadership is one of the main driving forces of every new and innovative project or initiative. Since e-Government is a complex process, accompanied by high costs, risks and challenges, public organizations are generally resistant to the initiation of change. A leading player (organization, institution), which is able to understand the real costs and benefits of the project, to motivate, influence, include and support other organizations and institutions, is required. Leadership is necessary before, during and after project implementation. Before the project is initiated, leadership is needed in order to explain the concept, the model and create awareness; during the project, leadership is needed to manage change and support the project; and after the project, it is needed to pledge the required flexibility and adaptability of the initiative. Top leadership involvement and clear lines of accountability for making management improvements are critical to overcoming organizations' natural resistance to change, marshaling the resources needed to improve management, and building and maintaining the organization wide commitment to new ways of doing government [15].

CONCLUSION

The demand for e-governance will increase in the coming years as more and more businesses will be created and transacted online, and decision making by the citizens/electorates on polls, opinions, and community activities, lagging performance in the public sector will not be tolerated.

Furthermore, as the enthusiasm of e-government grows, many developing countries will continue to utilize more sophisticated web sites with more

features to do a better job of helping citizens, businesses, other governments, and other web visitors. Government web sites are evolving from simple web pages to sites organized around a web portal comprised of search tools, links to online transactions, citizen-centric content, and two-way communication links to government officials.The issue for helping local councils move forward is not necessarily prescribing what level of functionality its e-government services should have, but rather the task is: given the level of e-government that a government chooses to achieve, what is the most appropriate approach to manage the process of assimilating the e-government service to best meet the needs of its citizenry? E-Government studies and reports that look at which factors shape the adoption of e-government assume that the simple awareness of the innovation is sufficient for the government to be successful. Subsequently, any policies or loan programs that measure performance or outcomes based on the adoption of e-government take a perspective of technological determinism. In other words, it is the belief that technology will change behaviors directly. ICTs do not operate in isolation. So the concern for helping local government with e-government should focus on understanding how to adjust global practices for e-government to local conditions, norms and customs. E-government strategies and projects need to be adapted to account for factors such as illiteracy, rural area problems, and weak infrastructures, through the development of adequate access methods. It offers the potential of reshaping the public sector activities and processes, building relationships between citizens and the government, enhancing transparency, increasing government capacity and providing a "voice" for those outside the government. This is hampered by the existence of many political, social, technical and economic hindrances. Not-withstanding local governments need to assess their situations and develop a solid plan of action.

RECOMMENDATIONS

E-Government depends on two factors – the willingness of citizens to adopt and use the online service and the ability of the government to implement e-Government [34]. The following recommendations will help government at the local councils develop a start-up for e-government:

a) Develop a strategic e-assessment plan to guide e-Government services; Based on the outcomes of this assessment, it is possible to produce strategies and action plans for building human resource capability, legislative frameworks, institutional infrastructures, technological infrastructures and accessibility for all in a tailored and effective way.
b) Understand the needs of all segments of public to make sure the e-Government system genuinely assists each citizen to fulfill his or her human development needs; and, enable citizens to participate in the design of e-Government services;
c) Use well established system development practices to carry out the day-to-day activities of developing, implementing and maintaining e-Government services;
d) Create a learning organization where employees are encouraged to participate in developing and managing e-Government services;
e) Develop effective ICT governance mechanisms to assign roles and responsibilities for managing and making decisions about e-Government services;
f) Develop ICT capabilities focusing on building a suitable ICT infrastructure to sustain long-term investments in e-Government, nurturing the development of human capital within the

government to use ICTs for e-Government, and facilitating the skills of employees to develop and manage partnerships with private sector firms and other possible partners;

g) Provide a secure experience for web visitors by developing an e-Government security and disaster recovery plan.

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