ASSESSING e-GOVERNANCE IMPLEMENTATION IN NIGERIA THROUGH THE TECHNOLOGY ACCEPTANCE MODEL (TAM) APPLICATION

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Abstract

The focus of this paper is to examine the e-governance implementation in Nigeria using the Technology Acceptance Model. The paper is qualitative in nature and relies on secondary sources for data collection and the discussion that followed. The paper found that there are certain obstacles that hinder the adoption and effective implementation of e-governance that would have engendered qualitative service delivery in public sector organizations in Nigeria. It is in line with the foregoing, that this paper concludes that tackling the obstacles to e-governance adoption, implementation is key to the achievement of better public service delivery. The paper therefore recommends the sensitization of public servants on the importance and benefits of adopting and implementing e-governance in their administrative and organizational processes that will ultimately lead to improved service delivery in Nigeria among others.

Keywords: E-governance, Adoption, Public, Service delivery, Technology Acceptance Model

INTRODUCTION

E-Governance is a two way communication process which deals with the use of information and communication technology to deliver government services and ensuring the availability of such services to citizens.

Sunday [1] stated that e–governance has become a necessary political mechanism in evaluating government performances in many developed parts of the world. In fact, the use of information and communication technology in government businesses through promoting government's role in delivering services, public administration and promoting active participatory democracy has been gaining an impelling force in the global community [2]. According to UNESCO [3] e-governance deals with the adoption of new leadership style, new methods of making decisions on policies and investment, new ways of making education available to citizens, new ways of listening and attending to citizens as well as new ways of organizing and delivering information and services. Thus, assessing e-governance status and nature in any part of the world, requires analyzing several parameters and factors. According to Danfulani [4], the scope of e-governance revolves around e-registration, e-participation, e-taxation, e-mobilization, e-education, e-service delivery, e-feedback, e-policing, e-debate, and the analysis of public financial statements. Thus, e-government is a network of organizations such as the government, non-profit organizations, and private institutions who work together to achieve a common goal. Ayo [5] observed that the primary aim of ensuring the application of e-governance in the affairs of the state is to promote good governance which is characterized by equality, partaking in the democratic process, transparency, and accountability in the various sector of the nations' economy. E-governance evolved on the basis of the revolution in information and communication technology which finds expression in digital technologies such as; personal computers, internet, mobile phones, and different electronic applications. The emergence of these devices gradually enabled the easy transfer of information and services between the government and other areas of the society [4].

The aim of this paper is to examine e-governance implementation in Nigeria using the Technology Acceptance Model (TAM).
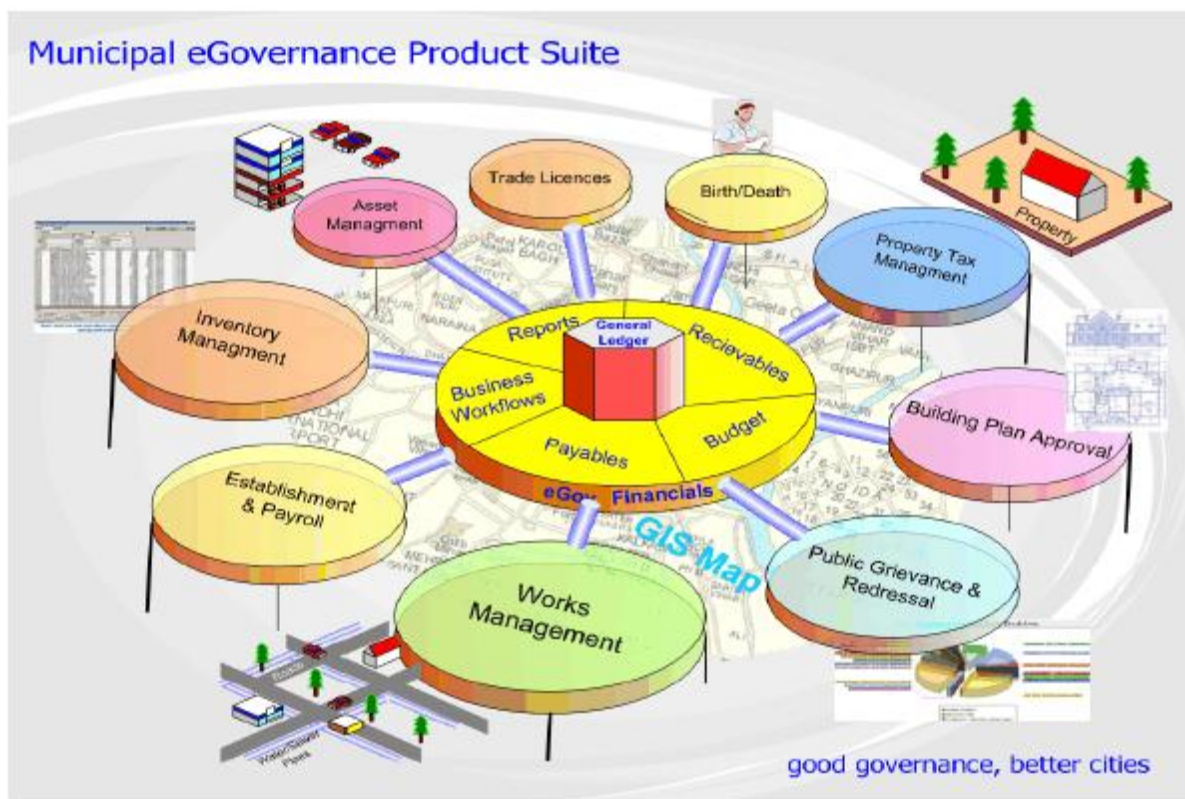
Figure 1. Municipal e-governance product suite. Source: Nadhamuni (2009).

PARAMETERS FOR MEASURING THE STATUS AND NATURE OF e-GOVERNANCE

Information and Communication Technology and its application in recent times have offered many opportunities for economic and human development within various nations in the global community. The Reports of Economic Commission for Africa [6] observed that within the framework of World Summit on the Information Society (WSIS), national governments, together with the stake holders at the national, regional, and international levels are engaged in conceptualizing and deploying ICT in governance so as to support development. It is on this note that scholars have agreed that a global comparative e-government indicators can assist individuals to understand the status and nature of e-governance in nation-states. According to Palvia and Sharma [7], the online service delivery index can be analyzed using a five stage framework of e-government development. They are:

- *Emerging stage:* Emerging stage is a stage where the presence of basic government information is small in scope and pertains to only specific issues. In this stage, the e-governance online presence consists of an official website which links to ministries, departments, parastatals, and regional/local governments. Some important documents such as the constitution and certain policy statements are also uploaded online in this stage.

- *Enhanced stage:* Under the enhanced presence stage, the government ensures that certain selected public policy documents such as an e-government policy statements, specific

education and health policy statements, as well as government sources of current and anchored information are made available to the citizens.

Interactive stage: The interactive stage ensures that government's internet services are capable of influencing and acting on each other, while providing services that will be suitable for each citizen. Such downloadable documents as forms for payment of taxes, license renewal, and bills payment are found in this site. The site is expected to be updated regularly so as to ensure the presence of more recent information and statistic

- *Transactional stage:* The transaction stage allows a dual interaction between government and citizens. This stage creates avenue for the citizens to pay for important government services online, while those who are responsible for providing goods and services are given the opportunity to bid their goods online through links that are adequately secured

- *Internet stage:* The final stage of online service delivery is the stage of network presence which represents the most sophisticated level in e-governance. Under this stage, the government and its agencies provide citizens, businesses and other civil organizations the opportunity to participate, deliberate and make important decisions, and at the same time, the government is ready to involve every sector of the society in a dual discussion with the aim of promoting unity amongst members of the society.

HISTORY OF e – GOVERNANCE IMPLIMENTATION IN NIGERIA

The Nigerian government over the years has taken drastic measures at putting the nation on track in the area of information and communication technology (ICT) advancement and its utilization in governance. In the year 2001, the government of Nigeria launched her national information technology policy and thereafter, the implementation of this policy began with the establishment of National Information Technology Development Agency (NITDA). However, the implementation of e-governance in Nigeria differs from one level and agency to the other. This implementation created an attempt to provide a unified national framework of Information and Communication Technology adoption in governance. The federal government of Nigeria made an announcement on the importance of her ICT policy for the nation in 2001 [8]. E-governance created awareness that no country or its government can perform its duties effectively in this era, without the adoption of technology. That is, applying internet services, in the process of service delivery. The Nigerian federal government saw the necessity to have a national policy on Information and Communication Technology as a result of the importance of ICT in governance. Thus, the enabling policy on ICT gave rise to the National Information Technology Development Act by the National Assembly in 2007 with the establishment of this agency [8]. With this enabling Act, many of the agencies of government started the implementation of information and communication technology in their operations. More so, that the federal government created the new Ministry of Communication Technology. Part of the responsibilities conferred on this ministry is to coordinate ICT development and make progress as regard's the country's target on e-governance [9]. Recently, there are various strategies evolved to accelerate the development of technology in Nigeria [10]. Accelerate the development of technology in Nigeria [10]. The E-Nigeria initiative was an attempt towards the connection of communities, relevant agencies, government organizations including educational institutions at all levels with information and communication technology pursued currently by the government. The ICT implementation project started from the National Rural Telephony programme, and includes the Public Service

Network, ICT facilities loan scheme at state and local government levels, internet exchange point initiative and the wire Nigeria idea. These ICT implementation strategies are targeted at enabling accelerated growth of the nation [11]. The mechanisms and skills required by a country to realize these initiatives is to make computers and other ICT enhancing equipment flexible and cheap for citizens to acquire. Presently, there is an easy access of allocations to both state and local governments on the Ministry of Finance official website. The public display of these allocations would enhance accountability and transparency across the levels of government [12].

THE TECHNOLOGY ACCEPTANCE MODEL (TAM)

The Technology Acceptance Model (TAM) was proposed by Fred Davies in 1989. The model was an expansion on Arzen and Fishben [13] Theory of Reasoned Action. Technology Acceptance Model (TAM) emphasizes the acceptability of an information system. The objective of this model is to predict the acceptability of a tool for use and to identify the modifications which must be brought to the system in order to make it acceptable to users. This model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness and perceived ease of use [14]. TAM posits that perceived usefulness and perceived ease of use determine an individual's intention which serves as a mediator of actual system use. Perceived usefulness is also seen as being directly impacted by ease of use [14].

Technology Acceptance Model (TAM) is quite different from the original version of Reasoned Action. The differences are in two categories: first, is that the model introduced two new constructs; perceived usefulness and perceived ease of use. The first construct (perceived usefulness) believes that the usage of an application would increase performance while the other construct (perceived ease of use) believes that the use of application would make work stress-free [15]. Ducey [16] in his work, gave a clearer explanation that the two constructs of Technology Acceptance Model (TAM) are of high importance as they determine technology acceptance and users' behaviour. One of the goals of Technology Acceptance Model is the provision for explanation that determines the acceptance of technology generally. This goal is capable of explaining behaviour of users across a wide range of population. Thus, the main purpose of the Technology Acceptance Model (TAM) is the provision of foundation to trace the effect of external factors on attitudes, internal beliefs and intentions in the organisation.

The theory is applicable to the practice of e-governance in the Nigerian public sector. Technology Acceptance Model is relevant to the Nigerian civil service as it explains the role played by self-efficacy, perceived cost, technological infrastructure, power supply, and internet facilities to support the adoption of e-governance. The application of Technology Acceptance Model (TAM) is enhanced due to its simplicity together with the predictive authority which makes its application easy to different situations [17]. Technology Acceptance Model is useful in explaining the acceptance, application, relevance and effectiveness of modern technologies in information sharing among citizens, literacy level and galvanizes public service delivery. The application of TAM to a study like this underscores user's technological behaviour and actual utilization. From the unit of analysis and with the assumptions of the Technology Acceptance Model (TAM), the model is relevant and applicable to the discussion of e-governance implementation and public service delivery in Nigeria.
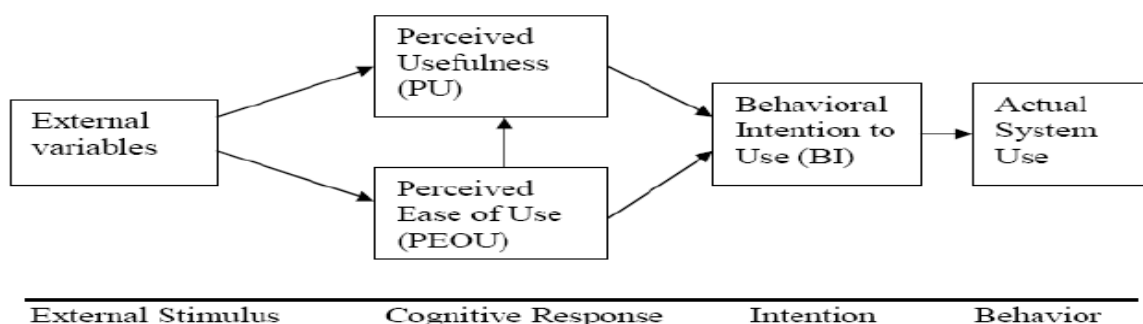
(Davis and Venkatesh, 1996₁)

PROBLEM OF e – GOVERNANCE IMPLEMENTATION IN NIGERIA

The hurdles to e-governance implementation in Nigeria are similar to those of other developing nations. Scholars like [18] and [19] agreed that one of the hurdles to the implementation of e-governance in Nigeria is poor telecommunications and internet facilities. Fatile (2012) captures this issue by emphasising that the enabling technological frameworks for the adoption and implementation of e-governance are substandard and insufficient. Telecommunication facilities are in this category. Abdulrazaq [20] highlighted the obstacles to the implementation of e-governance in Nigeria to include the following:

Infrastructural Deficit: ICT facilities in Nigeria are urban based. Most of the telecommunication base stations are located in the urban areas, with little or no access to the rural areas. Although the tele-density rate of the nation is high at almost 90 percent now. The rate and level of internet usage in the country is not encouraging and this adds to the challenges facing the implementation of e-governance in Nigeria.

- *Digital Divide:* This is the difference in the access and usage of technology between regions and areas that have the same identity. A proper explanation on the digital divide in Nigeria, chronicles the change in the accessibility, use of technological services between the rural and urban areas. Digital divide results from low literacy, infrastructural deficits and massive poverty.
- *Incessant Power Failure:* This is one major problem affecting the successful implementation of e-governance in Nigeria. The power supply in the country is epileptic and unreliable. Power outage is a common occurrence in villages, towns and cities in Nigeria with negative influences on the robustness of the nation's ICT initiative. Most telecommunication stations are powered by constant generating sets and this affects the services rendered to the consumers, and the cost of running the base stations are transferred to consumers.
- *Low IT Professional Manpower:* The level of ICT education in Nigeria is another problem facing the implementation of e-governance in Nigeria. During an interview with an official of the Nigerian Communication Commission (NCC), he gave detailed analysis on the deficiencies of staff performing e-services in many locations in Nigeria, and that the few skilled ones are overburdened [21].

CONCLUSION

This study examined the e-governance implementation in Nigeria using the Technology Acceptance Model. The current situation of e-governance in the country is unsatisfactory for qualitative service delivery. Service quality has deteriorated and e-governance implementation should be seen as a means of improving service delivery. The obstacles identified and discussed above are threats to e-governance implementation in Nigeria. It is recommended that government should adopt the tenets of the Technology Acceptance Model (TAM), which would align the behaviour of users towards useful applications. There is also the urgent need for the governing elites to drive the ICT roadmap to strengthen administrative processes in the Nigerian public bureaucracy for impactful service in Nigeria. Finally, there should be adequate sensitization of public servants on the importance and benefits of adopting and implementing e-governance in the administrative and organizational processes that will ultimately lead to improved service delivery in Nigeria.

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