

E-governance Delivery through Information and Communication Technology (ICT)

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Abstract:- Advancement in technology offer new opportunities for sustaining and enhancing government activities. The aim of the paper is to find potentials role of ICT in e-governance. The paper particularly, reviews the potentials of ICTs in e-governance for economic sustainability. ICT provides automation, transformation and informatisation for delivering effective and efficient governance. The paper also looks into how ICT support democracy, job opportunity, transparency and accountability for economic growth at all levels of governmental functions. Furthermore, it discusses various ICTs techniques that serve as a platform for achieving e-governance. Finally, the paper concludes and recommends that adoption of e-governance for national development is appropriate.

Keywords:- E-governance, ICT, Delivery, Economic Growth, Sustainability and Accountability.

I. INTRODUCTION

E-Governance allows managers and supervisors utilizing ICTs in delivering their responsibilities effectively and efficiently. Also it provides delivery of national and local government information and business to citizens and other governmental agencies via the Internet and other electronic devices (Palvia and Sharma, 2007). Torres and Acerete (2006), reported that, e-governance is online service delivery for capacity building in other to transform public administration through the use of ICTs. According to Heeks (2001), ICTs provides three basic potential benefits for good e-governance. This includes: automation (replacing manual operation which involves accepting, storing, processing, outputting or transmitting information), informatisation (supporting current processes of decision making, communication, and decision implementation) and transformation (creating new methods of public service delivery). Investigations of more than 34 websites of the most populated EU cities are involved in e-governance initiatives at different levels of development (Torres and Acerete, 2006). On the other hand, Backus (2002), defined e-governance “as the application of electronic means for interaction between government, citizens, businesses as well as internal government operations to simplify and improve democratic government and business aspects of Governance”. E-governance increases democratic

participation, accountability, transparency, quality and speed of service delivery (Backus, 2002).

II. MAJOR ROLES OF ICT IN E-GOVERNANCE

The remarkable acceptability of ICT in e-governance is increasing globally for successful governance (Hazlett and Hill, 2003 and Ciborra, 2009). Therefore, some of the important reforms that ICTs provides are outlined below:

➤ Productivity

The application of ICT has significantly improved government productivity. This has been achieved by monitoring staff via thump print, Closed Circuit Television (CCTV), detective device and relevant application software. These assertions have been supported by (Palvia and Sharma, 2007 and Saxena, 2005) and also sustained by Madon (2004), who outlined that ICTs provides cost savings through rationalization, and more effective administration and delivery in public services., The arguments also, uphold by (Ndou, 2004).

➤ Planning

For any successful government ICTs is the key element that leads to success. For instance budget planning and future forecast can be carried out effectively and efficiently with ICTs. This statement is agreed by (Palvia and Sharma, 2007) and in accordance with Clift (2003). Also, in study conducted by Madon (2004), revealed that application of ICT in the public sector can offer important benefits such as improved planning and monitoring mechanisms, cost savings through rationalization, and more effective administration and delivery of positive public services. There is much application software that can assist in planning such as Microsoft Excel, Statistical Package for the Social Science (SPSS), Geographical Position System (GPS).

➤ Monitoring and Evaluation

Supervising employees is easier and user friendly with ICTs. Staff can be monitored effectively through the use of thump print, CCTV, Radio Frequency Identification (RFID) and other digital devices. Madon (2004), in his research aimed at evaluating the developmental impact of e-governance initiative confirmed that ICTs offers effective monitoring mechanisms. ICTs can assist in monitoring government activities such as permission for loading,

unloading, driving in restricted areas, complaints about public nuisances and catalogue of libraries are implemented in more than 70% of cities (Torres and Acerete 2006). Furthermore, Ndou (2004), reported that ICTs enhances flexible management, interdepartmental team work with central coordination of government activities at various level.

III. ORGANIZATION

Keeping records is very essential for effective government management. Sorting, filtering, storing, editing and updating records are easier with application software that is purposely developed to manage records. This statement is in accordance with (Palvia and Sharma, 2007). With effective application of ICTs records, mismanagement such as data mutilation, missing of files, data redundancy will be minimized. Likewise, Ndou (2004), reported that ICTs in e-governance provides horizontal hierarchy, network organization, information sharing and team work between stake holders. In support of the above findings Heeks (2001), reported that ICTs provide effective and efficient e-governance through automation, informatisation and transformation of government activities at all levels.

➤ *Human Resources*

Employment management can be achieved via information technology (IT). Employment advertisement, enrolment (data capture) and verification are easily processed through ICT. This is supported by Palvia and Sharma (2007). Ndou (2004), argued that ICTs enables Government 2 Employee (G2E) an effective way of providing e-learning, bringing employees together and promoting knowledge sharing and collaboration among them. Equally, Saxena (2005), reported that e-governance has tackled secondary schools managing problems in some states in India. This gives employees the possibility of accessing relevant information regarding: compensation and policy benefits, training and learning opportunities and civil rights laws at any levels of government functions.

➤ *Access to Information*

Information is readily available over the internet which can be accessed, shared and collaborated. In a research conducted by Torres and Acerete (2006), which aimed at reshaping the government relation with its citizen through e-governance, it was revealed that it is easier for citizens to locate and download official information, to communicate with public officials through email, and to conduct transactions through the Internet. The authors further reported that ICTs bring citizens closer to government, regardless of the type of political system adopted. This assertion is supported by Rao (2004), who argued that good service delivery is easier with ICT. Similarly, a study conducted by Ndou (2004), reported that Government 2 Government (G2C) allows customers to access government information and services instantly, conveniently, from everywhere, by use of multiple channels (PC, Web TV,

mobile phone, website, or wireless device). The above claims agreed with (Madon, 2004).

➤ *Revenue Generation*

A study conducted by (Torres and Acerete 2006) shown that about 85.7% of developed countries (Austria, Belgium, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and the UK) have effectively, implemented tax payment for revenue generation using the ICTS. Other services include booking of sport facilities, public employment, and public procurement. Similarly, Madon (2004), argued that ICTs provides cost savings through rationalization, and more effective administration and delivery of optimistic public services at various levels of government functions. This statement is in accordance with claims of (Ndou, 2004).

➤ *Sustainability of Democracy*

E-government plays a vital role in sustaining democracy all over the globe. ICTs facilitate new reforms of e-government-enabled public sector policy making that enshrine some of the important norms and practices of e-democracy (Chadwick, 2003). In a paper published by Clift (2003), it was stated that Internet is continuously being adopted for political and governance purposes. The above findings were supported by Ndou (2004). Some of the developed countries cast their votes electronically although developing countries are still casting votes manually. However, registration and voters accreditation have been achieved electronically in some underdeveloped countries. Campaign awareness is being carried out vigorously via social media such as face-book, email, video conferencing, whatsapp, Skype, instagram and weblog. Linking democracy with e-governance allows dissemination of vital information at all levels of government functions through ICTs. This enhances and sustains democracy without much difficulty.

➤ *Job Opportunity*

ICT provides many jobs to youths for self-reliance and hence help government in sustaining economic stability (Rao, 2004). When youths are self-employed, government would have addressed more than 70% of security issues and challenges. This implies that ICTs will provide job to youth for self reliance and economic sustainability. There are many available jobs in ICTs domain such as computer and GSM repairs/maintenance/assembly, software and web development, IT consultancy and training. In support of the assertions Pathak *et al.* (2018), revealed that many developing countries have realized the need for e-Governance to provide customer-focused, cost effective, and easy to use services for general public and businesses and to improve the internal working of government.

➤ *Transparency and Accountability*

Transparency and accountability are the major factors of determining good governance for economic sustainability. A research conducted by Clift (2003), disclosed that ICTs is the key element of transparency and accountability in any successful government. This is can be achieved through online employment, payment (salary, contract, registration, tax etc), advertisement, recruitment, examination and other government functions. Ndou (2004) reported that ICT adoption may enable fundamental changes in the relationships between the citizens and government functions at all levels. This may strengthen government economy and democracy.

➤ *Economic Sustainability*

A research conducted by Heeks (2001), which intended at understanding e-governance for development at all levels of government functions exposed that ICT offers five benefits such as (i) governance that is cheaper (producing the same outputs at lower total cost), (ii) governance that does more (producing more outputs at the same total cost), (iii) governance that is quicker (producing the same outputs at the same total cost in less time), (iv) governance that works better (producing the same outputs at the same total cost in the same time, but to a higher quality standard) and (v) governance that is innovative (producing new outputs). A research conducted by Rajalekshmi, (2007) upholds the above arguments.

IV. CONCLUSION

E-governance offers better opportunities for national development by means of ICTs delivery. The review reveals that ICTs provides effective and efficient government functions such as accountability, sustainability, transparency, economic growth, reliable democracy, security and job opportunity for national development.

RECOMMENDATION

Government should integrate e-governance management system at national and local level through appropriate reform process for transparency, accountability and economic sustainability. Adequate ICTs infrastructure and training personnel are required for effective management of e-governance.

REFERENCES

- [1]. Backus, M. (2002). EGovernance in Developing Countries.
- [2]. Chadwick, A. (2003). Bringing e-democracy back in: Why it matters for future research on e-governance. *Social science computer review*, 21(4), 443-455.
- [3]. Clift, S. (2003). E-democracy, e-governance and public net-work. *Artículo en línea*. Publicus. net.
- [4]. Ciborra, C. U. (2009). Interpreting e-government and development: Efficiency, transparency or governance at a distance?. In *Bricolage, Care and Information* (pp. 90-110). Palgrave Macmillan, London.
- [5]. Heeks, R. (2001). *Understanding e-governance for development*. Manchester: Institute for Development Policy and Management.
- [6]. Hazlett, S. A., & Hill, F. (2003). E-government: the realities of using IT to transform the public sector. *Managing Service Quality: An International Journal*, 13(6), 445-452.
- [7]. Madon, S. (2004). Evaluating the developmental impact of e-governance initiatives: An exploratory framework. *The Electronic Journal of Information Systems in Developing Countries*, 20(1), 1-13.
- [8]. Ndou, V. (2004). E-Government for developing countries: opportunities and challenges. *The electronic journal of information systems in developing countries*, 18(1), 1-24.
- [9]. Pathak, R. D., Singh, G., Belwal, R., Naz, R., & Smith, R. F. I. (2008). E-governance, corruption and public service delivery: A comparative study of Fiji and Ethiopia. *JOAAG*, 3(1), 65-79.
- [10]. Palvia, S. C. J., & Sharma, S. S. (2007, December). E-government and e-governance: definitions/domain framework and status around the world. In *International Conference on E-governance* (pp. 1-12).
- [11]. Rao, T. R. (2004). ICT and e-Governance for Rural Development. Center for Electronic Governance, Indian Institute of Management, Ahmedabad, 28, 312-315.
- [12]. Rajalekshmi, K. G. (2007). E-governance services through telecenters: The role of human intermediary and issues of trust. *Information Technologies & International Development*, 4(1), pp-19.
- [13]. Saxena, K. B. C. (2005). Towards excellence in e-governance. *International Journal of Public Sector Management*, 18(6), 498-513.
- [14]. Torres, L., Pina, V., and Acerete, B. (2006). E-Governance developments in european union cities: Reshaping Government's relationship with citizens. *Governance*, 19(2), 277-302.