

E-GOVERNANCE IN AFRICA: PROSPECTS AND CHALLENGES

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ABSTRACT

E-governance is the globalization of government's service delivery and a symbol of growth and development in countries of the world. All the citizens have equal access to the various services rendered by the government at all places where the electronic governance signals get to. Service delivery to the citizens has also been made more effective by governments that have adopted e-governance across the world and especially in Africa. This has the challenge of leakage of classified information dissemination by both the government and the end users. The question this study seeks answer to is; to what extent has African countries utilised e-governance in service delivery? This paper utilises data from the United Nation survey database on E-Governance from 2005-2016. The data collected is analysed based on Regional and Economic Groupings for E-Government Development Index (EGDI) in Africa considering the world average. The study concludes that the higher the EGDI in Africa, the higher the rate of development.

Keywords: Development, E- citizens, E-democracy, E-federalism and E-Governance

Introduction

Countries of the world are getting closer to one another every day in terms of social, political and economic integrations through international relations. Despite this fact, they are keeping watch on the security implications of the closeness agenda. As countries are knitting up at the external and international sphere in a multi stage outlook with one another, they are also closing up the gap of governance in the internal sphere among the citizenry through e-governance. E-governance is a form of globalization of government's service delivery to its citizens and also a symbol of growth

and development within a country and among countries of the world (European Commission 2015; World Bank 2015).

E-governance is one of the major features of globalisation and it has made the day to day government administration to be easier. All the citizens have easier access to government services delivery. These services beforehand might be difficult to be accessed but through electronic governance, this has been made easier (United Nations 2015). To some extent, equal accessibility is guaranteed to all or some essential services rendered by the government at all places where the electronic governance signals can get to. This has made the process of service delivery much more effective and efficient to the citizenry.

Service delivery is the primary function of the government. Any government that fails to render the essential services to the citizens then the social contract it has with the state is questionable. Basic services such as the provision of security of lives and properties, housing and shelter provision and the means of livelihood such as employment and food security to the citizens has also been made more effective by governments that have adopted e-governance across the world and especially in Africa. The duty of the citizens as well to the government in terms of the payment of tax and other charges are also made easier and convenient through e-governance (European Commission 2015; World Bank 2015). This no doubt is with major challenges.

Despite the fact that the process of e-governance has made governance to be flexible and accessible, there are some basic challenges that militate against it in both developed and developing countries. The security of information disseminated by the government on its websites and the end users accessing such information is at risk (Open Data Institute 2015). Vital and classified information of end users and government might be leaked to the hands of any third party who might use it against either the government or the citizen. The personal profiles of the users of the e-governance facilities or citizens are at risk of being exposed by Hackers. This has been one of the problems encountered by developed countries in the process of globalisation of government services delivery.

The political economic system is thus at risk of being shut down due to porous e-governance networking. Severe economic losses and sabotage might result which may take several years for the country to recover from such losses. The question this study seeks to answer is that to what extent has African countries utilised e-governance in service delivery? This paper

utilises the data from the United Nation survey database on e-Governance from 2005-2016. The data collected is analysed based on Regional and Economic Groupings for E-governance Development Index (EGDI) in Africa with a clue from the world average.

World E-Governance Rankings

E-governance technologies provide opportunities for wider coverage of government service delivery and policy integration, helping bring the aims, objectives, desires and agenda of government closer to the citizens. This is partly because e-governance makes institutional coordination among agencies technically easier, helps lower the coordination cost of working across agency boundaries, sharing of information and facilitates better communication, data sharing, operations monitoring and procedures implementations (Fountain, 2013; UNDESA, UN Department of Economic and Social Affairs 2015). Another reason for this enhanced coordination is that the inherent technological attributes of digital systems influence institutional coordination. Among these attributes are norms of efficiency, streamlining, and a tendency towards standardisation and convergence as way of coordination. It is important to note that effective institutional coordination through e-governance and integration in service delivery at the policymaking level requires a profound shift that is generally difficult in practice.

E-governance has grown rapidly over the past fifteen (15) years, since the first attempt of the United Nations to benchmark e-governance in 2001. In the 2016 Survey, twenty nine (29) countries score “very high” with e-governance development index (EGDI) values in the range of 0.75 to 1.00, as compared to only ten (10) countries in 2003. Since 2014, all one hundred and ninety three (193) Member States of the UN have delivered some form of online presence. E-governance is now ubiquitous in many more countries, a stark contrast in comparison to 2003 – when eighteen (18) countries or about ten percent (10%) of countries globally were without any online presence. Fifty one percent (51%) of countries had “low- EGDI” or “medium EGDI” values in 2016, as compared to over seventy-three (73%) per cent of countries in 2003.

Government, where agencies and levels of government share objectives, data, processes and infrastructures across organisational

boundaries makes e-governance happen and as well requires investing in cross sectoral capabilities, robust infrastructures, transformational leadership, and e-governance compliance and support cross-agency coordination mechanisms (Hanna, 2011). Despite the considerable investments in finance and human resources and the related development gains, e-governance divides, just as digital divides, exist between and within regions and countries. Regional trends have remained largely unchanged over the past fifteen (15) years: in 2016, there is a huge gap between African countries, with a low EGDI average of 0.2882, and European countries, with EGDI average of 0.7241. Oceania countries, with an average EGDI of 0.4154, are also below the global average of 0.4623. Asia and the Americas are very close, with average EGDI values of 0.5132 and 0.5245 respectively. At the same time, there are champions of e-governance in each region, as well as among the small island developing states and least developed countries.

In December 2015, the General Assembly, as a result of its overall review of the implementation of the World Summit on the Information Society, highlighted the breakthroughs which ICT have enabled in government and the provision of public services. Today, e-governance has become a development indicator and an aspiration of itself. It can clearly contribute to development if it is upheld (Hopkins 2011). It has helped advance the delivery of basic services such as education, health, employment, finance and social welfare. It is helping small islands and developing states in building resilience to climate change and disaster preparedness and disaster management. It can play a critical role in making institutions more inclusive, transparent, and effective.

But for e-governance to realize its full potential impact on development, it needs to be accompanied by measures to ensure access and availability of information communication technology (ICT) and make public institutions more accountable and more responsive to people's needs. E-governance is but one small part of the major effort we are undertaking to close the deep inequalities that continue to exist between countries and within societies. It is important to mobilize its contribution while taking into account the various levels and characteristics of countries' development and keeping the focus on realizing the sustainable development goals (SDGs).

E-Governance And Development In Africa

The key challenge for the e-governance development of Africa remains the widespread lack of infrastructure and functional literacy. Despite recent expansion in mobile telephony, most countries in Africa remain at the tail end of the digital divide. These challenges have translated into a lower than world average e-governance development for all sub-regions. Southern Africa with EGDI of (0.3934) consistently outpaces all other sub-regions. Though there has been some improvement in all sub-regions, except for Northern Africa and Middle Africa (Central and West Africa), it has been minimal, with the least e-ready sub-region being Western Africa with EGDI of (0.2171). E-governance in Africa (United Nations 2008; 2010) indicates that all sub-regions in Africa fall below the world average. However, there has been some improvement in the region, especially in Central, Northern and Western Africa since the 2008 United Nations survey. Northern Africa leads the region and is closely followed by the Southern Africa. Western Africa lags far behind the other sub-regions and is the lowest scoring sub-region in the 2010 Survey.

Progress in Africa remains relatively slow and uneven. The 2014 regional EGDI average in Africa is 0.2661. Six countries (Tunisia, Mauritius, Egypt, Seychelles, Morocco and South Africa) have EGDI values above the world average of 0.4712, placing them among the top fifty (50) percent of the world. On the other hand, about thirty (30) percent (16 countries) of the fifty-four (54) African countries are at the bottom ten (10) percent of the world ranking (United Nations 2012; 2014; 2016a). To reverse this trend, countries in the region need to focus on building human capital, including ICT literacy and on bridging infrastructure gaps to provide an enabling environment for e-governance development. Visionary strategies and practical implementation plans should follow for effective deployment of sustainable online services (United Nations EGDI Report 2014).

Tunisia and Mauritius are the two highest-ranked countries in Africa, with Egypt, Seychelles, Morocco and South Africa following closely behind and showing progress as compared with the 2012 survey. However, Africa as a whole exhibits a regional digital divide with most Internet activity and infrastructure concentrated in South Africa, Morocco, Egypt, Mauritius and Seychelles. The top 20 countries in the African region based on UN e-

governance development index 2014 report revealed that Tunisia climbed 28 places to the 75th global position. Mauritius and Seychelles remain in the regional top 5, improving their world rankings from 93rd in 2012 to 76th in 2014 and from 84th to 81st respectively. Egypt improved its ranking significantly and is now ranked third in the region and 80th globally. Morocco improved its ranking by 38 places, which is clearly the biggest jump in the region; it has emerged as a trailblazer in certain areas with particularly impressive mobile broadband take-up. Morocco was one of the first countries in the Middle East and North Africa to institutionalize a regulatory environment for promoting competition in the telecommunications sector; and as such, made great strides in levelling the playing field for private operators to enter and succeed in the market.

The telecommunication sector has been an important driver of Africa's economic growth in recent years. ICT revenues have increased at a compound annual growth rate of 40 per cent in Africa and the number of mobile subscribers exceeded 400 million in 2011 (ICT works 2012; Mendel 2015). To meet the increased demand, investment in telecommunication infrastructure—about \$15 billion a year—has also grown considerably, with a thirty three (33) percent compound annual growth rate from 2003 to 2008. The increase in revenue generation in Africa has mostly been due to the exponential usage increase of mobile technologies and related services. Africa's average annual growth rate in mobile subscriptions was estimated in 2012 at 65 per cent or higher, making it the highest in the world. Mobile value-added services have also been launched by both public and private sectors throughout the continent to enable and support a broad range of sectors, including food security, agriculture, banking, a broad range of education and healthcare, among others.

All of these electronic innovations have some measures of security implications. These include; the creation of e-federalism which has the tendency and ability to change the relationship among the levels of government to an imaginary administration whereby one sector is benefiting than the other (Estevez, et al. 2013). The social implication of digital divides among the population is another social security factor that reduces the administrative professionalism among various section of the working population. E-ethics should increase transparency in governance but it usually reduces the openness or willingness of personnel to go extra mile out

of their way to ensure effectiveness in service delivery. It endangers democratic expressions. This is seen in the light of e-democracy which should normally enhance citizen's participation through online voting, fundraising for thee-campaign, increased transparency in legislative and policy-making environment framework, the regulatory framework; implications of initiatives like recognizing the legality of e-signatures; greater citizen participation in the policy making environment(e-democracy) among others. But the issues of ethics, security and privacy are highly compromised in e-governance. It also has some international implications such as the lowering of borders through information exchanges impacts and its consequences on international standards and best practices, information and knowledge management and e-governance secrecy.

METHODOLOGY

This study uses the data from the United Nation survey database on e-Governance from 2005-2016. The data collection is based on regions in Africa such as Central Africa, East Africa, North Africa, South Africa and West Africa. Africa Average and World Average are also collected. The data collected is analysed based on Regional and Economic Groupings for E-governance Development Index (EGDI) of Africa which are; Central Africa, East Africa, North Africa, South Africa and West Africa. Africa Average and World Average are also analyses as a synoptic interlocking analysis of EGDI and the extent of security challenges in Africa. Descriptive statistics and graphical analysis is used to present and discourse the data.

Data Presentations And Discussion Of Findings

E-governance Development Index (EGDI)

Continent/Year	2005	2008	2010	2012	2014	2016
Central Africa	0.24	0.25	0.26	0.25	0.35	0.35
East Africa	0.28	0.29	0.28	0.30	0.38	0.39
North Africa	0.31	0.34	0.37	0.32	0.44	0.42
South Africa	0.39	0.39	0.35	0.39	0.39	0.45
West Africa	0.19	0.21	0.22	0.22	0.29	0.31
Africa Average	0.28	0.29	0.27	0.30	0.26	0.29
World Average	0.47	0.21	0.44	0.22	0.47	0.49

Table I: Source: United Nations Department of Economic and Social Affairs 2005-2016

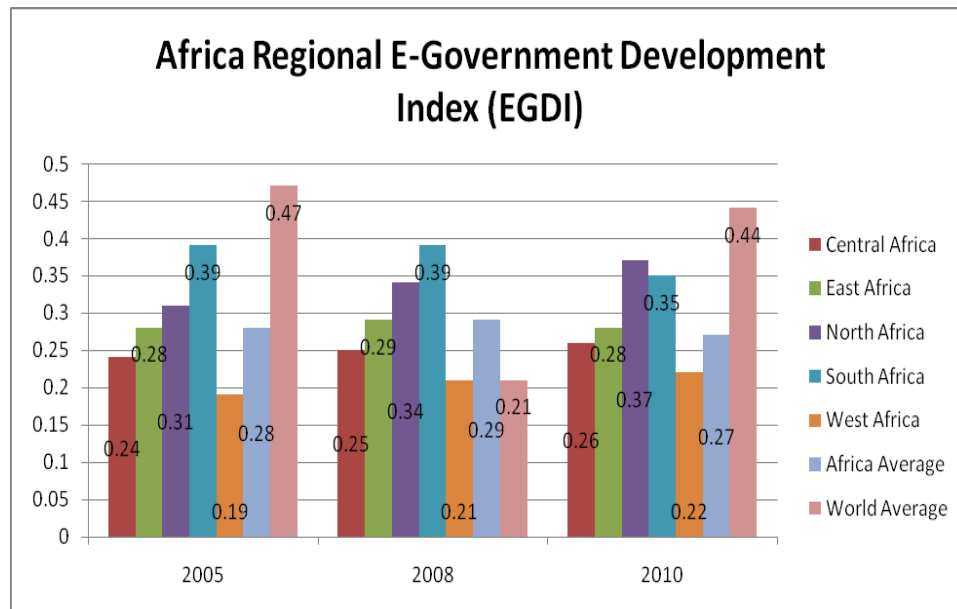


Figure I: Africa Regional E-governance Development Index (EGDI) 2005-2010

From the table I and figure I above, it is evident that in 2005 the EGDI of Central Africa was 0.24 which is below Africa's average of 0.28 and far below the world average of 0.47. This is as well similar but slightly better off to that of West Africa which has a very low EGDI of 0.19. East Africa EGDI was 0.28 an equivalent of Africa's average but still below that of the world average. However, the EGDI of that of North Africa and South Africa were 0.31 and 0.39 respectively which is above Africa's average of 0.28 and slightly leveraging the world average.

In 2008, from the table I and figure I above, there was a global drop in the EGDI. The EGDI of Central Africa was 0.25 which is still below Africa's average of 0.28. This is as well similar but slightly better off to that of West Africa which has a very low EGDI of 0.21. East Africa EGDI was 0.29 an equivalent of Africa's average and a slight improvement than 2005 EGDI. However, the EGDI of that of North Africa and South Africa were 0.34 and 0.39 respectively which is above Africa's average of 0.28 and a slight improvement than 2005 EGDI.

In 2010, from the table I and figure I above, it is evident that the EGDI of Central Africa was 0.26, a marginal improvement than that of 2005 and 2008 respectively. This is still below the Africa's average of 0.27 and far below the world average of 0.44. This is as well slightly better off to that of

West Africa which has an EGDI of 0.22. East Africa EGDI was 0.28 a higher EGDI to that of Africa's average but still below that of the world average. However, the EGDI of that of North Africa and South Africa were 0.37 and 0.35 respectively which is above Africa's average of 0.27 and slightly leveraging the world average.

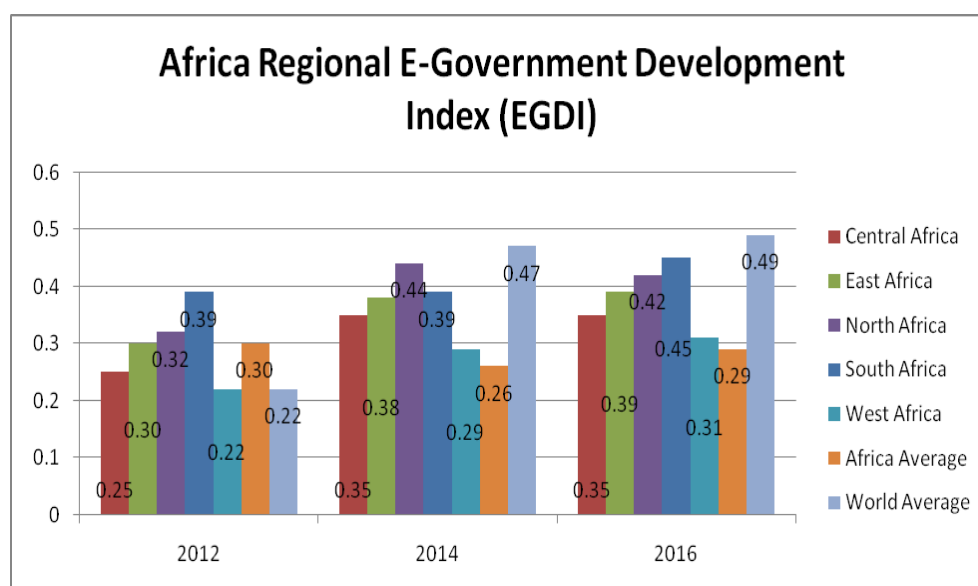


Figure II: Africa Regional E-Government Development Index (EGDI) 2012-2016

In 2012, from the table II and figure II above, it is evident that the global EGDI crashed to 0.22. However, EGDI of Central Africa stood at 0.25, a decrease to that of 2010. This is still below the Africa's average of 0.30 and slightly above the world average of 0.22. This is as well slightly better off to that of West Africa which has an EGDI of 0.22. East Africa EGDI was 0.30 a higher EGDI to that of Africa's average and that of the world's average. However, the EGDI of that of North Africa and South Africa were 0.32 and 0.39 respectively which is above Africa's average of 0.30 and that of the world's average.

In 2014, from the table II and figure II above, the EGDI of Central Africa was 0.35, a significant improvement than that of 2010 and 2012 respectively. This is above the Africa's average of 0.26 and marginally below the world average of 0.47. However, the EGDI in West Africa also improved to 0.29 an average which exceeds that of Africa (0.26). The East Africa EGDI was 0.38 a higher EGDI to that of Africa's average but still below that

of the world average with 0.09 EGDI margin. However, the EGDI of that of North Africa and South Africa were 0.44 and 0.39 respectively which is above Africa's average of 0.27 and marginally close to that of the world average.

In 2016, from the table II and figure II above, the EGDI of Central Africa was 0.35, a similar average to that of 2014. This is above the Africa's average of 0.29 and marginally below the world average of 0.49. However, the EGDI in West Africa also improved by 0.02 to 0.31 aall time record high which exceeds that of Africa 0.29. The East Africa EGDI was 0.39 a higher EGDI to that of Africa's average but still below that of the world average with 0.1 EGDI margin. However, the EGDI of that of North Africa and South Africa stood at 0.42 and 0.45 respectively which is above Africa's average of 0.29 and marginally close to that of the world average of 0.49 EGDI.

Concluding Remarks

E-governance has reduced the complexity in the rate of governance to a flexible input and output system model all around the world. It has enhanced e-governance and citizens demand on the government service delivery. The security risk might be enormous in Africa due to the development rate in tackling cybercrime and its related e-risks. Nevertheless, for Africa to benefits more from globalization and e-governance, at the most fundamental level, government policy must focus on the demand side of the equation, instead of just focusing on the supply side of government services and on areas and applications which are likely to generate high returns for sustainable development and to benefit the majority of citizens (e.g. in education), rather than those primarily driven by efficiency public utility considerations (e.g. e-driver's license).

E-governance serves as an enabler of policy integration. It provides governments with several of the elements needed for policy integration, such as increased insight into complex issues and analysis of a situation or policy. It also offers opportunities to re-engineer existing decision-making processes and information flows. Moreover, e-governance if properly implemented will inevitably help safeguard government's integrity causing a change in the institutional set-up and coordination of the government. The automated systems used in e-governance inherently require a certain level of standardisation, convergence and interconnectivity in order to work. This technological integration may then carry over into better institutional oneness and integration.

Government policies that are aimed at increasing user uptake ought to be guided by the simple aim and objective which is to answer the question of ‘how to get people to use e-governance services’. This leads to questions of relevance of e-governance content to users, motivational factors (especially convenience), as well as usability and other usage-influencing factors. At the same time, policies need to focus on a range of threshold issues and barriers to e-governance usage (including particularly, privacy and security issues in health care, government and private classified information and other areas). Besides, e-governance promotion and awareness campaigns and evaluation needs to be an integral part of a policy effort to increase e-governance uptake, which is also an important part of educating the public about the benefits of e-governance which may eventually help to increase user uptake.

The links between e-service delivery, usage and sustainable development are mediated and influenced by fundamentals like education, skills and digital infrastructure. Governments wishing to succeed in e-governance would therefore do well to invest in strengthening these particular fundamentals, including broadband. Governments need to improve capacity to effectively seek citizen feedback, monitor, track and analyze usage trends, so as to prioritize service digitization and integrate relevant data into policy. User feedback can provide important data for integration into policy efforts to increase service usage and reduce the security risks. Finally, the government is a platform not a caking machine where citizens tend to think of government as a kind of baking machine to put in (flours) taxes and get out services that governments provide (cake). However, this baking machine idea is giving way to the idea of “government as a platform”. The platform metaphor means that government provides a system in place to deliver services not by governments alone, but also by citizens and others. In doing so, government encourages collaboration with partners’ such as non-state actors to enhance value for citizens and increase uptake; orchestrating these partnerships and acting as catalyst and facilitator. Governments need to effectively monitor such collaboration with clear terms, roles and responsibilities, while also allowing for those inside and outside governments to develop innovative arrangements with a view to delivering services more effectively and increase usage.

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