

Evaluation of the current status of E-government implementation in Tanzania: Government websites perspectives

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Abstract

This paper provides an evaluation of the current status of e-government implementation in Tanzania by examining websites for ministries and government agencies. The data used to analyze fifty one websites for ministries and government agencies were qualitative and quantitative as well. The results were compared with indicators for Tanzania e-government implementation framework. The findings depicted out that the level of e-government implementation was in the stages of digital presence and interaction. The study is useful in improving the implementation of e-government in Tanzania.

Keywords: E-government; ICT; Implementation; Tanzania

1. Introduction

The Information and Communication Technologies (ICT) has provided Governments across the globe new ways of doing business and improving the quality of delivering services to their clients, citizens in particular. Governments have embraced ICT as a key enabler for provision of competitive services to their citizens ^[1]. This is from the fact that citizens are now exposed to more responsive ICT-enabled products and services. Therefore citizens expect their Governments to provide equivalent and even better services. It is imperative that the public sector respond to the opportunities offered by ICT that could enable it to improve service delivery to the citizens and the businesses.

Also ICT has impacted the way business is performed, makes easy learning and knowledge sharing, generate global information flows, provide power to citizens and communities in ways that have changed government working style. It is through ICT government has been able to automate all of its activities (e-government), and creates significant wealth and economic growth resulting in a global information society ^[2].

Literature has different explanation concerning e-government. Based on my view, e-government can be defined as bringing the government online by automating all of its activities to enable citizen, business and government agencies to have more access to government resources here by referred as information and services so as to increase effectiveness and efficiency in delivering services to the public. However according to Tanzania National e- government strategies, 2012 defined e-Government as the use of ICT to enhance work efficiency and improve service delivery in order to meet the needs of the public in a responsive and transparent manner ^[3].

The main objective of e-government is to enable citizen, business and government agencies to acquire government information and services in a simplest and fastest way to remove the sense of bureaucracy which used to sound mostly in public sectors. This will bring a close relation between Government and Citizen (G2C), Government and Business (G2B), Government and Employees (G2E) and Government and Government (G2G) ^[2]. E-government can also be an enabler for improving transparency, efficiency and effectiveness of services delivered to citizens and businesses ^[4, 5]. Due to this advantage, many countries have embarked on the e-government initiatives.

Tanzania government is aware of a lot of benefits acquired in using e-government. These benefits include providing high quality services to its citizen, bringing convenience by placing public service near to citizen, improving customer services as well as building a friendly infrastructure for e-business implementation ^[6]. Due to this fact, the government established e-government agency in 2013 which is responsible for providing coordination, oversight and provision of e-government initiatives and enforcement of e-government standards ^[3]. In Tanzania, e-Government is expected to help the government to engage and enhance the relationship with its clients through increased and enhanced digital services. Prior that, there were initiatives which have been made, for example in 2003 Tanzania released out its National ICT Policy with the mission of enhancing nation-wide economic growth and social progress by encouraging beneficial ICT activities in all sectors through

providing a conducive framework for investments in capacity building and in promoting multi-layered co-operation and knowledge sharing locally as well as globally^[7].

2. E-government implementation models

In order for e-government to be implemented, it requires a formalized approach which will help the stakeholders to understand e-government starting point and maturity point as well^[8]. Different literature has been laid down different models as a roadmap to implement e-government for example United Nations five stages of e-government model^[9], Layne and Lee four stage e-government model^[10], Gartner four stages of e-government model^[11] and World Bank three phases of e-government model^[12]. Generally most of e-government implementation models foresee that e-government implementation have to start with dissemination of information to citizen through website, bringing interactivity between the government and citizen, build the infrastructure that will allow citizen to make secured and fully transactional activities online and finally integrating all government agencies to allow citizen to access all government services in a single window. These models also explain that upon successful implementation of these stages they will bring a friendly environment between government and citizen^[13].

2.1 UN five stages model

The United Nations and American Society for Public Administration (UN/ASPA) lay out the five stages for e-government development as mentioned here below.

Stage 1: Emerging – Establishment of one or more than one independent government website with basic official information which are limited and static.

Stage 2: Enhanced – This stage is characterized by the increase of Government websites with regularly updated content and dynamic information.

Stage 3: Interactive – Here users can obtain online forms, communicate with officials online by sending a request, appointment, comment or campaign. There is a greater interaction between citizen and service providers where by a government website act as a gateway to link those two stakeholders.

Stage 4: Transactional – Users have an ability to perform secured online transaction such as acquiring visa, birth and death records and licenses.

Stage 5: Seamless – Government use a single website which perform as a one stop centre where by users can access more than one services in a convenient way, this allow user to be task focused rather than department focused.

2.2 Layne and Lee's four stage model

Layne and Lee^[10] proposed a four-stage e-government development whereby they considered e-government as evolutionary phenomenon.

Stage 1: Cataloguing – In this stage government establish online presence by developing website with some basic or static information.

Stage 2: Transaction – In this stage e-government efforts is mostly based on making sure that the internal government system are linked to online interfaces and enable users to make transaction with government electronically.

Stage 3: Vertical integration – Integrating government function is a main issue focused in this stage where by activities performed by local, state and federal government are linked together to provide quality services.

Stage 4: Horizontal integration – Here various processes from different systems are integrated to each other to provide consistent service.

2.3. Gartner's four stage model

In order to analyze the trend for e-government initiatives and establish benchmark to accomplish the desired levels of constituency service Gartner and others developed four stages of e-government^[11]. The model classifies e-government implementation into four distinct stages.

Stage 1: Presence – In this stage basic information are posted to the government website; the information posted here are also described as 'brochure ware' which portray same functions as a paper brochure.

Stage 2: Interaction – This stage provide simple interactions between government agencies and public through website for example mail usage. Online Interactive forms which generate informational responses are also available in this stage.

Stage 3: Transaction – This stage allow user to make an online transaction for example renewing license, procurement and paying taxes online.

Stage 4: Transformation – In this stage the government reinvent its working style to provide highly efficient and personalized services.

2.4 World Bank three stage model

US Center for Democracy and Technology^[12] divided e-government implementation process into main three main stages. These stages are independent to each other; it is not necessarily that they need to be implemented in a sequential form. In general the model provides a roadmap to think about the goals of e-government.

Publish: In this stage e-government implementation is focused mainly in content and design. In addition to that official sites publicize basic information such as rules, regulation, policies and forms.

Interact: In this stage users are involved in governance process by bringing interaction with policy makers in all government levels; therefore

provide a two way on line communication using electronic tools like email.

Transact phase: In this stage the government creates website that allow citizen to make complete online transaction. The site is expected to cut down cost and increase productivity as well.

From the above models it can be concluded that there are a lot of similarities between them even though they are different in terms of total number of phases and given phase names. For instance dissemination of government information on line seems to be number one phase in the e-government implementation to all mentioned models despite the fact that they have been assigned different names (emerging, publish, presence and cataloguing). However interaction stage seems to be familiar with almost all models where by it focuses on providing interaction between user and government officials. In addition to that transaction phase is also common to all model where by it focus on building infrastructure that will enable users to make transaction online, though it has been given different names (transactional, transact and transaction) Additionally, there are some divergences between these models. For instance, an Enhanced phase is only mentioned in the UN Five stages model that aims to raise number of websites and updating its information. This shows to what extent is the internet important in the e-government implementation. Moreover Layne and Lee ^[10] separate integration phase into vertical and horizontal stages. In the vertical stage, local, state and federal governments are linked together to unify various government task or services, hence users have an ability to access service at the top governments levels. In the horizontal stage, government systems are integrated across different functions and services ^[14].

2.5 Tanzania e-government implementation approach

According to Tanzanian national e-government strategies 2012 ^[3], it has been clearly explained that e-government is implemented following four stages namely digital presence, interaction, transaction and transformational stages.

Digital Presence: in this phase the government focuses on providing basic information by using electronic means, in addition to that there will be a one way information provision from the government agencies and limited interaction as well.

Interaction: in this phase government agencies are expected to provide an enabling environment for online interaction to be carried out. This means that citizen should be able to make online communication like making an appointment, submit request/complaints and applying for a job online and expect to get appropriate feedback.

Transaction: This phase is characterized by the stipulation of secured transactions with high level of authorization. Government agencies are expected to be able to offer capabilities and features which will allow

citizen to make complete transactions without the necessity of visiting Government offices. In this stage it is expected that the government will be able to provide online services in 24/7 mode. Typical instance may include one-stop online centers for citizens to apply for passports, permits or licenses, allowing them also to make payments online.

Transformation: In this stage government agencies are expected to be linked and performing their duties together, proper implementation of this stage will allow citizen to interact directly with government instead of individual Government agency.

In the effort to implement e-government the Tanzanian government has already established its own main website (government portal). They also call it a one stop Centre for public services, which has got a list of link to some of its agencies though the list is not exhaustive. The site has got many tabs one among them is **"How Do I"** tab that provide user with basic information and useful links to get different citizen services provided by the government. This tab provide information such as

✓ **How to apply for Passport/Passes/Visa;** Despite having information on how to apply for Passport/Pass/Visa also it contain information on how to obtain dependent pass, replacement of Lost/stolen passport and emergency travel documents.

✓ **How to apply for License;** It elaborates requirements and procedures to apply for license.

✓ **How to apply for citizenship;** It explain requirements and procedures to apply for citizenship for Alien above 18, apply for renounce citizenship, apply for naturalization of women, apply for citizenship for a person married to Tanzanian citizen and apply for minor citizenship.

✓ **How to obtain permit;** It has got requirements and procedures to apply for permit

✓ **How do I register;** It indicates requirements and procedures to register for a business names, a foreign company, political party, temporary contractor, food premises permit, work of Art and vaccine

✓ **Obtain certificate;** It has got requirements and procedures to apply for birth certificate, correcting birth certificate, replace lost birth certificate, birth certificate for Diaspora and products certification

Other features found in this tab is Lodge for complaints, export/import procedures and requirements and renting house for public/non-public servants

2.6 The role of website in e-government implementation

After studying different e-government implementation models, it has been observed that almost all models have a phase discussing the development of website for information dissemination, though this stage might be given different names as shown in Table 1. From

this fact it can be concluded that website is very important part in e-government implementation since it plays a major role of providing information and service to the public ^[15]. It is through website the government can publicize basic information such as rules, regulation and policies ^[12] which reduce the need for physical resources (paper) and cost reduction as well. It is from this basic fact a researcher decided to select government website as a key part in evaluating the current status of e-government implementation in Tanzania.

Table 1: Web development phase within different models of an e-Government system

Position of web development phase	Phase name in a specific model	Model name
Stage 1	Emergence	United Nations – DPEPA ^[9]
Stage 1	<i>Cataloguing</i>	Layne and Lee ^[10]
Stage 1	Presence	Baum and Di Maio ^[11]
Stage 1	Publish	US Center for Democracy and Technology ^[12]
Stage 1	Information publishing	Deloitte and Touche ^[16]
Stage 1	Information	Hiller and Belanger ^[17]
Stage 1	Simple information dissemination	Moon ^[18]
Stage 1	Web presence technology	Siau and Long ^[19]
Stage 1	Web presence	Al-Nuaim ^[20]

2.7 The need for website Analysis

Website evaluation is the process of determining the effectiveness and efficiency of the web based information system by using research or investigative procedures to systematically on an ongoing basis. For example, an evaluation of the current websites may help the government to understand where they are sailing in the journey to implement e-government so government officials can use results from this paper in the fore coming planning period to change or modify goals based upon newly discovered problems or the achievement of previously set goals ^[21].

3. Methodology

In this study 51 national websites were assessed by observation method through internet around December 2015 to January 2016. Website evaluation was focused on national, ministries and government agencies in terms of different criteria including language, currency, information contents, interactivity, visibility, inter-linkage and usability ^[22]. Data was analyzed by Statistical Package for Social Science (SPSS) Version 12.

4. Results and Discussion

4.1 Language of the websites

It was found that, only 33% of the website had “language change option tab”. Additionally, 63% of websites had both English and Kiswahili languages, but few of them had either English 33% or Kiswahili 4%.

The findings indicated that less than half of the government websites surveyed had a “language change option menu”. Good examples can be seen in the Tanzania Government Portal <http://www.tanzania.go.tz> and E-Government Agency (ega) <http://www.ega.go.tz>. This menu allow user to change language immediately after clicking to it. On the other side of the coin it can be learned that more than 50% of the government websites did not possess this feature. This means that citizens are forced to use the language used in the site whether she understands it or not.

Also findings denoted that more than 50% of the government websites are bilingualism using Swahili and English. This might be due to a reason that both of them are recognized as official languages even though good number of citizens speak and understand Swahili much. Other websites (33%) had only English language for example Ministry of Health and Social Welfare <http://www.moh.go.tz>, Tanzania Bureau Standards (TBS) <http://www.tbs.go.tz>, and Public Procurement Regulatory Authority (PPRA) <https://www.ppra.go.tz>, which are some of the very important sites to citizen.

Normally users get information from the website through language and that they are much comfortable when the information presented on the site are in their native language ^[23]. Basing on the fact that Swahili is a mother language in Tanzania it is advised that information in public websites should in that language for easy understanding. Having only English language as seen in some sight might be unfair to citizens because many citizens do not understand English especially those who attended primary education only. It is of great worth that the Government websites should have a “language change option menu” which will allow citizen to opt any language they prefer. Failure to do so may mislead intended users, since the aim of information dissemination is to empower citizen to have a full access to the government information and therefore understand well on what the government is doing.

4.2 Currency of the website

Two items were used in this analysis, namely, the copyright date and the date of updating the website. 92% of websites provided copyright date while 8% did not. However, only 4% of websites provided the date when it last modified, [Tanzania Government Portal <http://www.tanzania.go.tz> (2013) and National Health Insurance Fund (NHIF) <http://nhif.or.tz>

(2015)]. The findings signified that the website copyright issue has been taken into consideration since over 90% of the sites were copyrighted. On the other hand only two (2) websites were updated (as mentioned above) this indicated that a lot of information in government websites are not updated. The tendency of not updating information might put users in a risk zone because they can access and use information which is no longer in use at that particular time. Even though these two websites indicated their last date to be modified the Tanzania Government Portal was updated two years ago which is too long.

4.3 Contents of the website

Website content is very important because when user goes on line will first interact with the website content and not a person. If the content of the website is poor users will not be interested to explore information in that site and will no longer visit the site again. Therefore, the better the content the more the visitors^[24]. In this context three benchmarks were taken into consideration which are Leadership, Publications and Department function whereby they scored as follows; Leadership 96%, publications 78% and department functions 69%. More than 90% of website indicated their administration starting from top to bottom especially those senior positions. For example the website for Ministry of Water and Irrigation <http://www.maji.go.tz> outlined clearly this part starting from Minister, Deputy Minister, Permanent secretary, Directors, Associate directors, Chief Accountant, Chief internal auditors, Principal Legal officer, Computer analyst and head of sections as well. They went further and display even the date when it was approved by the president which was June 2011.

However, over 70% displayed their publications which were related to the intended agency. Taking into an account the website of President's office Public Service Management <http://www.utumishi.go.tz>, and Ministry of Agriculture, Livestock and Fisheries <http://www.agriculture.go.tz>. The President's office Public Service Management publications has important document about the government such as the Government gazette, government directory, government archive report, guidelines and circulars. Meanwhile the Ministry of Agriculture, Livestock and Fisheries also posted a lot of useful publications such as food security and nutrition assessment report, kilimo client service charter and Agricultural sector development programme which were posted in both Swahili and English language.

Departmental function feature was indicated in more than 60% of the website. Good examples are Ministry of Education and Vocational Training <http://www.moe.go.tz> and Ministry of Community Development, Gender and Children

<http://www.mcdgc.go.tz>. Both websites indicated their departments and units together with functionalities.

4.4 Website Interactivity

In this criterion, government websites were analyzed based on four aspects that are relevant to citizen-government relationship in e-government namely, feedback forms, contact information, online registration and search engines. The results show that all websites had contact information, 86% search engines, 63% feedback forms and 14% had online registration.

The findings pointed out that all website provided their contact information which includes phone number/Toll free numbers, e-mail address and physical addresses. Likely a good number of websites had search engine. This feature allow user to browse other information while she is on the same site. In addition more than half of the government sites uploaded feedback forms for users to submit their comments and queries online where necessary. For instance Ministry of Energy and Minerals <http://www.mem.go.tz> and Ministry of Natural Resources and Tourism <http://www.mnrt.go.tz> though in the ministry of natural resource and tourism the feature is within "contact menu"

Nevertheless online registration feature was observed to few websites. This portrayed that a lot of website lack the named feature which is very important. This feature allows citizen to register for government services online without physically going to the government offices. Among those few website which had online registration feature are displayed in the Table 2.

It is imperative for public website administrators to know that interactivity features are very important because it increase user's involvement to the website. This means that stakeholders should place extra prominence on integrating interactive features that boosts users' involvement with the website^[25].

Table 2: Government websites with online registration feature

SN	Government agency name	Agency website	Service offered
1	Tanzania Commission for University (TCU)	http://www.tcu.go.tz	Registration for Recognition for Prior Learning-RPL Form six / foreign certificate registration Diploma, Full Technician and equivalent registration Registration for evaluation of Foreign Awards Registration for evaluation of curricula
2	Higher Education Students Loan Board (heslb)	http://www.heslb.com	Online loan application for higher education students
3	Tanzania Revenue Authority (TRA)	http://www.tra.go.tz	Registration for TIN Registration for VAT Registration for Payments Registration for artist products Motor vehicle registration
4	National Social Security Fund (NSSF)	http://www.nssf.or.tz	Membership registration

4.5 Visibility of the Website

In this aspect, two items namely online polls and online forms were used. It was observed that a lot of websites did not have visibility feature. Only 4% websites provided online polls and 45% had online forms. Findings depicted that only two government websites (Public Service Management <http://www.utumishi.go.tz> and Ministry of Water and Irrigation <http://www.maji.go.tz>) had online poll feature where as 96% did not have. This implied that largest number of the government sites do not get feedback from their clients to modify their sites. Online poll feature allows users to evaluate the site based on their opinions and then submit to the concerned site. Submitted comments helps website owner to modify their site based on the feedback obtained from users. Even though using an online poll is a convenient way to get public opinions easily it has to be understood that this feature may not maximize user engagement since most online polls use multiple choice questions that gives respondents four or five options to choose. It is advised to use online polls but with combinations of other means that help to acquire public feedback^[26].

In **online forms** feature a low score was noted. This might mean that a lot of applications related to government, citizen are forced to go physically to the

government offices to take forms then goes back for submission. This to and fro motion is not citizen friendly so this area needs to be watched with keen eyes. In this area two issues were discovered; one is that some sites had online forms which allow user to download and fill but cannot submit online, while other sites had online forms of which user can fill and submit online. Some websites with online forms are shown in the Table 3 below.

Table 3: Government websites which have online forms

S N	Agency name	Agency website	Type of online form
1	Vocational Education and Training Authority (VETA)	http://www.veta.go.tz	Application form to join for studies
2	Government Employment Provident Fund (GEPF)	http://www.gepf.or.tz	Registration form Retirement pension application form Benefit withdrawal application form Survivor benefit application form Death gratuity application form Startup life loan application form
3	Local Authorities Pension Fund (LAPF)	http://www.lapf.or.tz	Registration form
4	Public Procurement Regulatory Authority (PPRA)	https://www.ppra.go.tz	Procedural forms
5	Parastatal Pension Fund (PPF)	http://www.ppf.or.tz	Employer registration form Employee registration form Contribution form Claim form for retired benefit Claim for death benefit Claim for survivor benefit Claim for education benefit Member particular amendment form
6	National Examination Council of Tanzania (NECTA)	http://www.necta.go.tz	Appealing form Request for an alternative certificate Request for returned certificates Request for correcting certificate names Request for getting certificate

4.6 Inter-linkage to other Government websites

The results revealed that 63% of websites provided useful links to other ministries and government agencies. Findings indicated that more than 50% of the site possess inter-linkage feature this mean that user can go to other related sites easily when she needs other information from other sites.

4.7 Website Usability

In this parameter, the results show that 47% provided Frequently Asked Questions (FAQs) and 39% visitors counter. From the findings it is of evidence that less than 50% of the sites did not have FAQs so this is also another area where government stakeholders need to work on it. FAQs will not only benefit users from getting immediate answers when in need but also it will help website owners to avoid answering same question many times from different users and hence saving time. On the other hand only 39% of the websites indicated visitors counter which show number of people visited the site in a particular period of time. Results indicated that very few sites had this feature. This tells us that most of government sites stakeholders do not know to what extent citizens are accessing their sites. Putting the website online is not enough it has to go an extra mile, since the site might be there but no one is visiting so it is much valuable for government websites to have this feature.

5. Recommendations

1. Based on the findings it is recommended that the government website should be bilingual. To implement this it is suggested to have a "language change option tab" at the top of the site. This will allow citizens to opt language which is fluent to them and hence be able to understand well the information posted on the site.
2. Also more emphasis must be done to insist government agencies to update the website information accordingly. This will enable citizens to access updated and right information as well as understanding what is really done by the government in a particular period of time.
3. A toll free number should be included in the contact information tab. This number will be of much use when citizens want to communicate with a government agency and are out of credit. The number will help to dial to the intended agent free of charge.
4. Feedback forms and online registration features should be added for those sites which do not have. The presence of these features will improve interactivity between citizens and government stakeholders. Availability of feedback forms allow website owners to get views from the second party of which this might help them to know whether the service given citizens are satisfied to them.

5. However an online poll feature is also seems like it has been forgotten to most of the sites. This feature is important since it allows website owners to know how citizen are rating their sites.

6. Conclusions

The study recognizes the achievement of first and second stage of e-government implementation namely digital presence and interaction whereby ministries and government agencies websites had provided basic information which is a sign for the first stage of e-government implementation. However, some of government websites have already implemented the second stage where by online interaction environment was observed though some of the features are still missing such as feedback forms and online forms to some sites. More research needs to be conducted to make a comparative study to evaluate the main government website with other country's main government website.

Appendix

Table 4: Language of the websites

Covariates	N (%)	%Missing
Language change option		
No	34(66.7)	0
Yes	17(33.3)	
Swahili		
No	17(33.3)	0
Yes	34(66.7)	
English		
No	2(3.9)	0
Yes	49(96.1)	

Table 5: Currency of the websites

Covariates	N (%)	%Missing
Copyright date		
No	4(7.8)	0
Yes	7(92.2)	
Update		
No	49(96.1)	0
Yes	2(3.6)	

Table 6: Contents of the websites

Covariates	N (%)	%Missing
Leadership		
No	2(3.9)	0
Yes	49(96.1)	
Department function		
No	16(31.4)	0
Yes	35(68.6)	
Publications		
No	11(21.6)	0
Yes	40(78.4)	

Table 7: Websites interactivity

Covariates	N (%)	%Missing
Feedback forms		
No	19(37.7)	0
Yes	32(62.3)	
Contact information		
Yes	51(100)	0
Online registration		
No	44(86.3)	0
Yes	7(13.7)	
Search engine		
No	7(13.7)	0
Yes	44(86.3)	

Table 8: Websites Visibility

Covariates	N (%)	%Missing
Online forms		
No	28(54.9)	0
Yes	23(45.1)	
Online polls		
No	48(94.1)	0
Yes	3(5.9)	

Table 9: Interlinkages

Covariates	N (%)	%Missing
Interlinkages		
No	19(37.3)	0
Yes	32(62.7)	

Table 10: Websites usability

Covariates	N (%)	%Missing
Visitors counter		
No	31(60.8)	0
Yes	20(39.2)	
Frequently Asked Questions (FAQ)		
No	26(51)	2
Yes	24(47.1)	

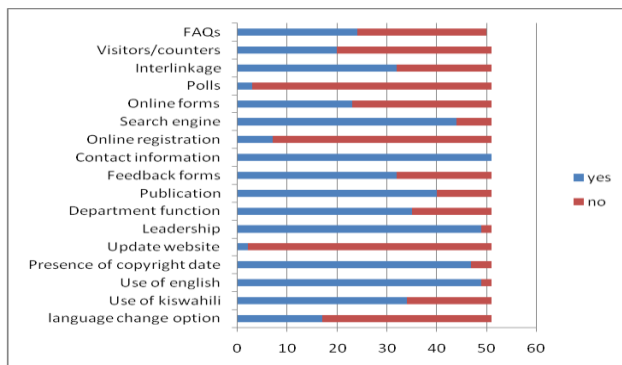


Figure 1: The frequencies of Y and N on different components

Note: %missing for all the variables are 0 value except for one website which had missing FAQ, therefore its %missing is 1.96% as shown in Table 10

Acknowledgments

We thank Mr. Abbas Ismail Kihame of Department of Statistics in University of Dodoma for useful advice on data analysis.

References

- [1] R. Naz, "E-governance for Improved Public Service Delivery in Fiji". Journal of Service Science & Management, Vol 3, pp. 190-203, 2009.
- [2] F. Makoza, "The Level of e-Government Implementation: Case of Malawi", Electronic Journal of e-Government, Vol 2(2), pp. 268-279, 2013.
- [3] Tanzania e-Government Strategy, President's Office, Public Service Management, 2012.
- [4] J.R. Gil-Garcia, and T.A. Pardo, "E-Government Success Factors: Mapping Practical Tools to Theoretical Foundations". Government Information Quarterly, pp. 187-216, 2005.
- [5] M. Yildiz, "E-government research: Reviewing the literature, limitations, and ways forward". Government Information Quarterly, pp. 646-665, 2007.
- [6] M. Dewa, and I. Zlotnikova, "Current Status of e-Government Services in Tanzania: A Security Perspective". ACSIJ Advances in Computer Science: an International Journal, Vol 3(3), pp. 114-122, 2014.
- [7] National ICT Policy, Ministry of Communications and Transport, United Republic of Tanzania, 2003.
- [8] Z. Irani, M. Al-Sebie, and T. Elliman, "Transaction Stage of e-Government Systems: Identification of its Location & Importance", in Proceedings of the 39th Hawaii International Conference on System Sciences, 2006.
- [9] United Nations, Benchmarking E-Government: A Global Perspective, 2002.
- [10] K. Layne, and J. Lee, "Developing fully functional E-Government: a four-stage model", Government Information Quarterly, Vol 18(2), pp. 122-136, 2001.
- [11] C.H. Baum, and A. Di Maio, Gartner's four Phases of E-government. 2000.
- [12] Center for Democracy and Technology, E-Government Handbook. Washington DC, World Bank, 2002.
- [13] D. Coursey, and F.D. Norris, "Models of E-Government: Are They Correct? An Empirical Assessment". Public Administration Review, Vol 68 (3), pp. 523-536, 2008.
- [14] M. Alshehri, and S.J. Drew, "E-government principles: Implementation, advantages and challenges". International Journal of Electronic Business, Vol 9(3), pp. 255-270, 2011.
- [15] J. Parajuli, "A Content Analysis of Selected Government Web Sites: a Case Study of Nepal". The Electronic Journal of e-Government, Vol 5(1), pp. 87 - 94, 2007.
- [16] Deloitte and Touche, "The Citizen as Customer". CMA Management, Vol 74(10), pp. 58, 2001.
- [17] J.S. Hiller, and F. Bélanger, "Privacy Strategies for Electronic Government". E-Government 200, pp. 162-198, 2001.

- [18] M.J. Moon, "The Evolution of E-Government among Municipalities: Rhetoric or reality?" *Public Administration Review*, Vol 62(4), pp. 424-433, 2002.
- [19] K. Siau, and Y. Long, "Using social development lenses to understand e-government development". *Journal of Global Information Management*, Vol 14(1), pp. 47-62, 2005.
- [20] H.A. Al-Nuaim, "An Evaluation Framework for Saudi E-Government". *Journal of e-Government Studies and Best Practices*, pp. 1-12, 2011.
- [21] A. Akakandelwa, "An exploratory survey of the SADC e-government web sites". *Library Review*, Vol 60 (5), pp. 421 – 431, 2011.
- [22] K.M. Thompson, CR. McClure, P.T. Jaeger, "Evaluating Federal Websites: Improving E-government for the People". In J.F. George (Ed.). *Computers in Society: Privacy, Ethics & the Internet*. Upper Saddle River, N.J.: Prentice-Hall, 2003.
- [23] A.O. Daniel, A. Oludele, R. Baguma, and T. Weide. "Cultural issues and their relevance in designing usable websites". *International journal of innovative technology & creative engineering*, Vol 1(2), pp. 20-29, 2011.
- [24] D.E. Rosen and E. Purinton. "Website design: Viewing the website as a cognitive landscape". *Journal of Business Research*, Vol 57(7), pp. 787-794, 2004.
- [25] Z. Jiang, J. Chan, and B. Tan. "Effects of Interactivity on Website Involvement and Purchase Intention". *Journal of the Association for Information Systems*, Vol 11(1), pp. 34-59, 2010.
- [26] M. L. Kent, T. R. Harrison, and M. Taylor. "A critique of Internet polls as symbolic representation and pseudo-events". *Communication Studies*, Vol 57(3), pp. 299-315, 2006.

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