E-Transparency and Information Sharing in the Public Sector

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ABSTRACT
This paper determines the degree of information sharing in government institutions through e-transparent tools. First the basis for the study is set through the background, problem statement and objectives. The discussion then proceeds by focusing on ICT tools for information sharing. An information sharing model is proposed and the extent of information sharing in the public sector of Tanzania through online media is discussed; furthermore, the correlation that exists between the extent of information sharing and factors such as accessibility, understandability, usability and reliability is established. The paper concludes by providing recommendations on information sharing and how it can be enhanced through e-transparency systems for public service delivery in an open society.

Keywords
E-transparency, E-Governance, Information Sharing, Public Sector, ICT.

1. BACKGROUND OF THE STUDY

Generally, information services are an important pillar for any democratic government. Citizens rely on information for making decisions which impact upon their social, political and economic lives. In this regard, there are laws which govern the right to access, and disseminate information locally and internationally (Hakielimu, LHRC, REPOA, 2005). Locally, government authority reflects international agreements through different legislations including the National Constitution (United Republic of Tanzania, 1995).The constitution in Tanzania entitles every citizen the right of access to information and empowers citizens with the right to disseminate information.

In his study Onyach-Olaa (2003) commended government authorities, which make an effort to enhance information sharing with citizens. The government has to improve interaction with those it governs while addressing information sharing as its core function. Furthermore, information sharing and transparency in government operations must become the culture of any democratic republic, including Tanzania (Mkapa, 2003). Transparency in government operations, improve the confidence of citizens toward their government, while reminding government leaders that their decisions and associated impact are transparent to citizens (Navarra, 2006). Traditionally, information services have been either provided or received through physical means; mostly, people use oral/listening and writing/reading methods to issue and receive information. In many cases, the traditional method of information sharing is characterised by delays, high cost,

low transparency and bureaucracy (Im & Jung, 2001); as the result this method allows for subversion of accountability (Lubua, 2014).

Arguably, communication developments brought by the use of Information and Communication Technology tools provide a better platform for information sharing. Instant communication is enhanced through tools such as emails, online telephoning, video conferencing, chat rooms and social websites. As the result of these tools challenges that relate to delays, high communication costs and bureaucratic procedures are addressed.

Apart from the platform provided by online media in enhancing communication, it is equally important to understand that the efficiency of information sharing is directly related to the size of the network connecting individuals, groups of people and organisation (Hatala & Lutta, 2009). The higher the intensity of networks the more the information received; the organisation enjoys these benefits if it form a strategic alliance with partners which allow free flow of information to both ends. This is the reason why the e-governance agency was instituted in Tanzania.

The appropriate use of e-transparency tools is perhaps the best strategy for the organisation to enhance information sharing with their stakeholders. The organisation has to emphasize good qualities of information sharing such as timely response, accessibility of systems, reliability of data, online security, completeness of online procedures and openness in service processes. Basically, this paper discusses different issues, including the need of online information sharing in the public sector and the extent to which government institution applies online media for information sharing and service provision. The study is based on opinions from clients who are consumers of such services.

2. PROBLEM STATEMENT

Business competition compels organisations to invest in information systems to improve the efficiency of their operations (Barua, Ravindran, & Whinston, 2007). This investment is made possible through the knowledge of employees, suppliers, customers, and other key stakeholders. In this regard the organization that shares its information with stakeholders more efficiently earns a competitive advantage (Drake, Steckler, & Koch, 2004).

Information sharing is an important resource which should be embraced in order to enhance the performance of an organisation (Hatala & Lutta, 2009). Depending on the type of organisation, the extent of information sharing is partly influenced by organisational policies and practices. The management team, employees and partners have to work together to foster organisational information sharing, which guarantees the future existence of the organisation (Drake, Steckler, & Koch, 2004).

The government of Tanzania acknowledges the importance of ICTs in promoting information sharing in the society. It uses methods such as conferences, workshops, public portals, and so on to show its intention for maximizing information sharing. With the growth of the number of users of ICTs, the degree of information sharing is expected to increase. Therefore, the study intends to establish the extent to which uses of ICTs have enhanced information sharing. Further, the correlation between the extent of information sharing and factors which negatively influence the perception of users will also be established by the study.

3. OBJECTIVES

This study is designed to cover the following objectives;

  i.   To determine the extent of information sharing through e-transparency in the Tanzanian public sector?

  ii. To establish the extent to which information usefulness, understandability, reliability and accessibility influences information sharing through e-transparency systems.

4. METHODOLOGY

This study was conducted through a mixed research method. First, the study reviewed a number of literatures to establish its relevance. Then, the Tanzanian Revenue Authority's Custom Online System was identified as a case for study, followed by survey procedures. Data were collected from twenty (20) clearing and forwarding companies that operate under Custom regulations of the Tanzania Revenue Authority. The study received and analysed a total of 40 responses. The study collected data from original sources to enhance validity and relevance. The analytical models used include the Spearman's Correlation Model and Regression Analysis.

5. ICT TOOLS AND GOVERNMENT INFORMATION SHARING

Transparency is one of the pillars of good governance that promotes openness in conditions and activities; eventually, transparency ensures that the stakeholders have the information necessary for them to make decisions necessary for the progress of business and their lives. In this case, information forms the cornerstone of transparency, more especially in civic organisations.

In the management of civic institutions, information dissemination provides guidance and education to stakeholders in different matters that influence their lives; these issues include political, socio-economic and cultural. This availability of information is clearly influenced by the media used in the capturing, storage and dissemination process. While electronic media are effective in raising the level of transparency in the society; the government should take advantage of these tools in building its relationship with citizens through sharing information, and hence engage them is supporting planned public development goals (Abu-Dhabi-Government, 2011; Lubua & Maharaj, 2012).

In the Republic of Tanzania, usage of ICT tools for communication and information sharing increases in a daily bases; users of the internet increased by 450% between 2001 and 2010. Additionally, about 50% of the population of Tanzania are reported to use either internet or a mobile phones (Kasumuni, 2012). With this increase, understanding the extent to which information from government institutions is shared enables the government to know how effective the media are utilized to promote national developments.

6. AN INFORMATION SHARING MODEL

This paper summarises information sharing using a model presented in figure 1. The abundance and availability of information means that the user needs skill to determine what it is that they want. In this case, the user of information has the key role to play in effecting information sharing. The user must be able to use relevant tools in searching for information and be able to determine the relevance of accessed data to his/her operations. The ability to use such tools is attained through learning. Having the knowledge to use the tools for searching the information, the user must be aware of the problem that they need to solve.

Figure 1: Information Sharing Model
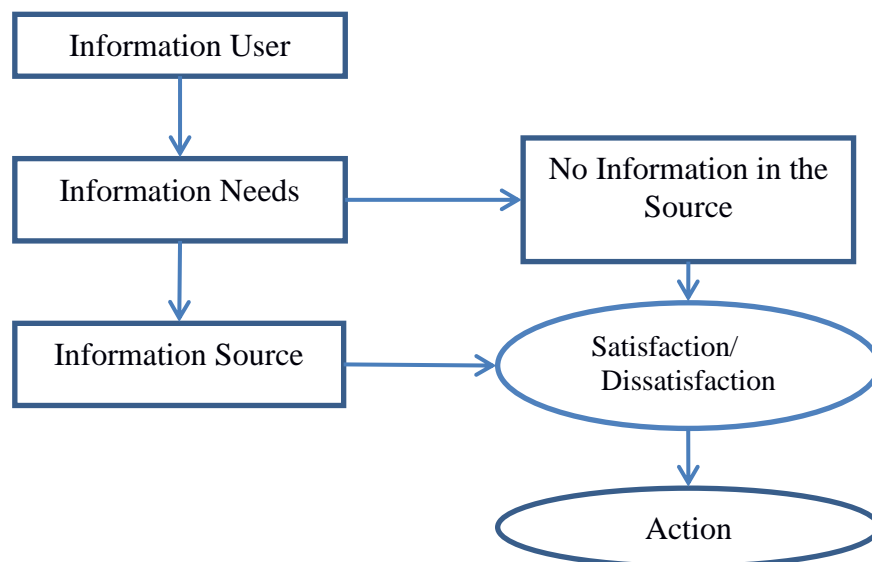
Source: Research Data (2012)

The choice of the information is dictated by the gap which has to be covered. When this gap is expressed, it becomes a need. Upon responding to the need, the user of information consults the source which is either electronic or physical. It is possible that the source may not have the type of information requested or the information may not be satisfying. Regardless of the status of satisfaction, the user of information takes action towards covering the gap. In case the public seeks information from government institutions, dissatisfaction may influence

members of the public to take action, even against the government, on the other hand satisfaction influences more support from the government (Lubua, 2014). The satisfied user of the information applies it to solve the problem identified in the gap. A good example could be of a farmer, who was searching for a good market of his/her harvests; s/he will eventually use the information to choose a better market.

Similarly, the recent Arab uprising represents a possible negative response by users of the information in case of low satisfaction (Maharaj & Vannikerk, 2011). The government should therefore respond adequately to inquiries from citizens to alleviate the possibility of negative response from citizens. It must ensure the adequate availability of information that address citizens' daily challenges.

7. INFORMATION SHARING USING E-TRANSPARENCY TOOLS IN PUBLIC INSTITUTIONS

The introduction of ICT tools brings more opportunities for information sharing in the organisation through allowing users to receive and send information more easily (Kilama, 2013). In other cases, stakeholders are able to discuss issues of different interests through tools such as social networks, chat rooms, e-mail systems and video/teleconferencing. In other places, the organisation is able to solicit stakeholders' opinions before making different decisions (Im & Jung, 2001; Lubua & Maharaj, 2014).

Together with the progress made in information sharing, there is the need to know the extent which government institutions apply online media for information sharing. This study is based on opinions from clients who are consumers of online information from a government institution.

Based on the response from clients of Tanzania Revenue Authority, it was found that, 70% of respondents agree that the Tanzanian revenue authority, sufficiently shares its information through online media. These respondents are clients of Custom services who benefit from the Custom Online System (CULAS). The following factors influenced a successful deployment of this system:-

a.) Good ICT infrastructure

The ICT infrastructure of Tanzania Revenue Authority is well established; it is characterised by good interface, reliable data backup systems, power backups and reliable internet connection. In addition, the revenue authority is among the organizations benefiting from the massive flow of internet through the National ICT Backbone (NICTBB). Nevertheless, the study observed that not all respondents had access to the infrastructure of the revenue authority. Some lacked computers to access such systems; the presence of the computer room for clients would be an important ingredient to extension of services offered by the revenue authority in its custom section. This will equally, facilitate users who are not based in Dar Es Salaam, but visit for custom services.

b.) Technical Skills and Competency

The infrastructure of the information system requires competent staff to maintain and operate its functions (Badillo-Amador, García-Sánchez, & Vila, 2005; Cohen, 2012). In many cases, the revenue authority uses its staff to run its operations; in the case where advanced knowledge is required the institution uses partnerships with non-governmental organisations to offer technical services. To a large extent, the revenue authority use trainings to equip its employees. Nevertheless, the study noted that there were cases where training was not effective as expected. In fact the analysis that desired to know the degree of association between training and skills possessed by staff through the Pearson Correlation Model observed an insignificant association ($r = 0.101$, $p =. 316$), EXCEPT where a follow-up program was instituted ($r= 0.292$, $p=0. 003$). Therefore, it is necessary to incorporate follow-up programs after trainings for enhanced competency.

c.) Institutional Will

Installing a good ICT infrastructure has to be complemented by the willingness of members of staff to use the new system exclusively for service provision. The management of the Tanzania Revenue Authority, Custom Department dedicates its online system to be the only method for the issuance of services to clients. So far the experience of operational staff is reported to be outstanding. However, the lack of important equipment such as computers to some employees and occasional system breakdown affects the use.

d.) Customer Satisfaction

Changes are to be managed carefully in order to avoid frustrating clients. Together with implementing new changes for service provision, the Tanzania Revenue Authority Custom Department established a help desk that attends to queries from clients about different applications of the new system. Additionally, documentation is provided that addresses steps to be taken in using the system. In this study it was discovered that 95% of respondents recommend or strongly recommend the use of Tanzania Revenue Authority Custom Online systems for securing services from the institution; these results shows that the extent of users' satisfaction with the online system is high.

8. INFORMATION USEFULNESS, UNDERSTANDABILITY, RELIABILITY AND ACCESSIBILITY AND THE EXTENT OF INFORMATION SHARING

As shown in the previous section, respondents from Tanzania Revenue Authority have confidence on the extent that government institution shares information with stakeholders through online media. While this extent is influenced by a number of factors, this study is interested in the following: Information accessibility, Information Usefulness, Information Reliability and Information understandability. This part of the study identifies how information sharing is

influenced by these factors and a linear regression model is used to demonstrate the relationship. The Linear regression analysis was used to establish the relationship between these variables as shown in Table 1 below.

Table 1:Model Summary

Regression Model	R	R Square
1	0.724[a]	0.524

a. Predictors: (Constant), Government Online Information is reliable, Government online information is useful, the use of Internet has enhanced access to information, and Government online information is easily understood

According to data reported by clients of Tanzania Revenue Authority, the value for Coefficient of Relatedness (R) is 0.724[a]; this value suggests the presence of correlation between the variables. At the Tanzania Revenue Authority, information usefulness, understandability, reliability and accessibility are important segments of the information provided to users. This is because the online system is the only means for users to access custom services. The appreciation of these variable influences the extent of information sharing among stakeholders. Below is a brief explanation on how these variables are enhanced at the Tanzania Revenue Authority.

a.) Information Accessibility

The Tanzania Revenue Authority's Custom online System provides users[1] with credentials which provide access to the system. Within the system, users are able to trace every stage of their application. Besides, to ensure that the system is constantly accessible to clients, the link to the online system is published on the website and supported by servers which are constantly running with the support of information and power backups. Although accessibility is better compared to other public institutions, users report that there were cases where they failed to launch their service applications due to extended system downtime.

b.) Data Reliability

The online system of the Tanzania Revenue Authority ensures reliability by dedicating few officials who are experts in custom services to manage queries and applications by clients to the system. Furthermore, employees of the revenue authority verifies the information sent by clients before they effect the transaction to ensure the reliability of information involved in transactions. This ensures that only the information which is both relevant and correct is provided to consumers through the online media. Moreover, to ensure that the information from users of an online system is reliable, the system provides guidance to users on different stages involved in an application for services. The system also dictates the format

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[1] Who are clearing and forwarding experts

of the information to be entered to ensure consistency; further, it grants the user with the opportunity to proof read their data entry before the information is completely submitted.

c.) Information Usefulness

The Custom Online System is dedicated to the Customs department only, and is tailored to meet the needs of Clearing and Forwarding argents to simplify their tax paying processes. The authority receives feedback from clients on different aspects of the system, this includes its usefulness for intended use. Although many respondents agree that the information they receive is useful, the study noted that a number of users were not comfortable with the use of the English language for communication. Swahili is the Tanzania's national language, its adequate use would improve the ability of users to understand information context, hence improve usefulness.

d.) Information Understandability

The issue of understanding the information provided through online systems is critical; the fact that users of Tanzania Revenue Authority are of diverse nature, suggests differences in analytical and language skills. While Tanzania uses Kiswahili as the National language, English is used for academic and business operations. Due to differences in education and analytical skills some clients of Tanzania Revenue Authority need to make some language consultation before they understand the content of information. Understanding the presence of this challenge, the revenue authority has a dedicated helpdesk to clarify issues which users find difficult to understand.

9. CONCLUSION

The purpose of the study was to establish the degree to which the Tanzanian public sector uses ICTs to enhance transparency. The assessment was guided by the fact that Tanzania advocates good governance, of which information sharing is an important component. Also, the study recognises that ICTs play an important role in the business sector to ensure that the client access services efficiently with maximum transparency. The same business experience could be adopted by the government to raise the level of satisfaction of citizens about government services. The study observed that many people are aware of the importance of ICTs in ensuring transparency in government operations. However, there are several cases where the performance in government operations did not meet users' expectations. Factors such as low reliability of the system and ineffectiveness of officials operating the system were among those which affected the use of ICTs for enhanced transparent services. While training was identified to be important is equipping users with the required technical skills; it was occasionally observed to be the opposite. Training required follow-ups to ensure that it meets expected goals. Equally to this, information accessibility, reliability, usefulness and user understanding ability have great impact on the experience of users towards online media.

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