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ASSESSMENT OF QUALITY OF EAST AFRICAN GOVERNMENTS WEBSITES AND SUPPORT TO SMEs IN BUSINESS INFORMATION PROVISION

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1. Background

With the advent of information technology and e-business, the quality of websites and their utilization to address the needs of many stakeholders is becoming critical. As Hasan and Abuelrub (2008) note, since the introduction of the first commercial website in 1994, electronic commerce has spread across the globe as a marketing, sales, and communication phenomenon, changing the operations of the business sectors. Taplin and Joseph (2012) observe that websites play an important role in the improvement of sustainable development for learning, benchmarking and cost reduction which are important to anybody including the business enterprises. This has compelled companies seeking to achieve significant benefits through e-business to create an effective and usable web presence to ensure successful interaction and communication with their employees, partners, and customers (Hasan and Abuelrub 2008).

The electronic presence globally through the Internet has revolutionized the way businesses are conducted and managed. To expand the markets especially in terms of investments opportunities and improve on productivity, the global appearance is vital today. This is not only making many business entities to create websites but also making governments the world over to rethink on their e-global visibility. In a bid to support government activities, most government bodies have now created their own websites. This is designed to help support government e-programmes, e-business and e-governance. Srivastava and Theo (2010) observe that recent years have witnessed rapid developments in e-governance as well as e-business within nations across the world, prompting many governments worldwide to adopt websites as an ingredient in promoting trade. The primary justification for the move towards e-governance - an electronic channel of service delivery that has proven tremendously successful in the private sector, is the belief that it holds considerable potential for positively transforming government service delivery (Morgeson and Mithas 2009). With the proliferation of websites and the commercial Internet services, assessment of website quality has evolved as an important activity (Grigoroudis … et al 2008). Business organizations and governments throughout the world invest time and money in order to develop and maintain user-perceived quality websites. These websites should provide an effective communication channel and information access platforms between

companies, governments and customers. Evidently, a website should clearly reflect the quality efforts undertaken by a business organization or government department; given that it is an important part of the connection with the set of customers (Grigoroudis … et al 2008).

However, when the website does not meet the needs of the users, it attracts less users. As LaRose *et al.*, (2001); Shao, (2009) and Paek… et al (2011), note, according to the uses and gratifications tradition of studying media effects, internet or website users are known to be more motivated to search for information when they believe it can meet their goals and expectations. This implies the quality of websites and intention designed for are crucial matters today. But to what extent are the East African government ministries websites meeting the business information needs of the SMEs? How well are these websites designed? This study focused on these two important issues.

1.1 Problem Statement

It is undisputable fact that websites play a significant role in enhancing the web presence and providing a platform for access to relevant information. However, this does not mean websites should be created and hosted without following some basic quality measures. To be able to perform to the expectations of users, issues like content, design and organizational dimensions should not be overlooked. Saha… et al (2012) ably note that despite the growth in adoption of technology or website or e-programmes by governments, the assessment of quality in electronically delivered public services has been relatively lacking. And if the role of SMEs in socio-economic development of a country is well recognized by different countries or governments, then how well are their information needs being addressed using government websites? It is against this understanding that this study was instituted to assess the quality of East African government websites and their contributions to the provision of business information to the economic pillars of every country, which are the SMEs.

1.2 Objectives of the Study

- To assess the quality of the websites of East African Government Ministries responsible for trade
- To assess the provision of business information to SMEs through East African Ministries of Trade websites

- To recommend appropriate measures to be adopted for the design of quality websites and effective business information provision through Government websites

2 Literature Review

The literature review was restricted to two areas for the purpose of this research. These are:

Assessing the quality of Websites

As the dependence on websites for the provision of timely and useful information continues, many people (Grose et al., 1998; Vora, 1998; Ivory et al., 2001; Ranganathan and Ganapathy, 2002 and Moustakis et al., 2004) have picked interest in the study of the quality of the websites. McInerney and Bird (2005) earlier noted that the question of Website quality has been defined by different disciplines in three distinct ways:

- the usability of the interface (mediated communication);
- the information value of the content provided (library and information science); and
- the design of such a site (information systems and technology, media studies).

There can be a focus on the usability or the information value or the design dimension or a mixture of the three. A study conducted by Grigoroudis … et al (2008) note that several research efforts, in the context of website quality assessment, have focused on the multi-dimensional nature of the problem (Grose et al., 1998; Vora, 1998; Ivory et al., 2001; Ranganathan and Ganapathy, 2002 and Moustakis et al., 2004). In several cases, website quality is related to the level of user expectations fulfillment (Grigoroudis … et al 2008). Grigoroudis … et al (2008) note that relevance; usefulness; reliability; specialization; architecture; navigation; efficiency, layout and animation are quality dimensions that are important in website quality assessment. Hasan and Abuelrub (2008) observe that most of the current studies on websites are either dealing with a limited number of quality factors or directed towards a specific web service. Thus, while there should be a considerable number and variety of factors associated with web site success, little research exists about the combination of these factors and services (Hasan and Abuelrub 2008). Lin and Joyce (2004) studied different e-commerce models of online auction websites. Six critical success factors

for a successful online auction website were identified that included design and content, consumer education, security, customer support, online community, and market positioning (Hasan and Abuelreb 2008). Barnes and Vidgen (2001) deployed WEBQUAL in the domain of Internet auctions and identified three quality dimensions; information, interaction, and site design. In 2002, Lim, evaluated the impact of four relevant factors to e-shopping; usefulness, ease of use, enjoyment, and security. Results showed that perceived ease of use and usefulness of the e-shopping website have a significant direct impact on the success of the site. All the website quality parameters for assessment can be summarized by Hasan and Abuelreb (2008) in which they identified four dimensions for assessment, namely: content, design, organization and user- friendly. Because Hasan and Abuelreb (2008) summary of the relevant parameters for website assessment accommodates key factors, this study found it appropriate to adopte it. The study therefore made a focus on these four dimensions to assess the quality of the government websites.

- **Content Quality Dimension**

Content quality dimension deals with the characteristics of websites' information (Rocha 2012). This dimension is the key dimension of any website, since it is the major source of value to customers (Singh and Sook 2002). The key elements and questions to consider under the content quality dimension include:

- *Timeliness*: How is the currency of websites' information and how much it is up-to-date? How frequently is the website updated? and is it clear when the site was updated?
- *Relevance*: To what extent is the websites' information comprehensive, complete and provided the right level of details? The extent to which it is informative, meaning, value added according to its audience, and fits to users' need to be assessed
- *Multilanguage/Culture*: Is the websites' information available in different languages? Or suitable for different cultures?
- *Variety of presentation*: Is information presented in different forms (text (.doc, .pdf, …), video, audio, …), so that the user can download the form that suits him/her?
- *Accuracy*: Is the information provided precise and there is no spelling errors or grammar errors? and the sources of information are identified?
- *Objectivity*: Is the information presented in objective manner without political, cultural, religious, or institutional biases?

- *Authority*: The credibility or the level of user confidence of websites' information is based on whether information is clearly provided about: the organization's physical address, sponsor(s) of the site, manager(s) of the site ,specification of sites' manager(s), identification of copyright sign, email to manager of the website exists

- **Design Quality Dimension**

This dimension concerns with the visual characteristics of websites' design that attract the users and encourage them to stay longer time viewing the website and re-enter it (Hasan and Abuelreb 2008). Governments just like Companies put a great effort to design their websites in an attractive and innovative way since poor design can mean that potential readers never see excellent material as they may become bored, confused, and eventually abort their attempt to view the information (Singh and Sook 2002). When assessing design quality, the following elements are important to be considered:

- *Attractiveness*: Is the design of the website innovative? Does it have aesthetic effect by its graphics and animation? Does it have an emotional appeal which makes the user happy, pleasant, enjoyable, and cheerful when visiting the website? These are important elements to consider *Appropriateness*: Is the design of the website appropriate to the type of the website? Are the Images used within the pages serving their functional purposes? Are the Images, colors, and text appropriately used? Is there information about the organization's objectives, history, products and services? Are photographs used appropriately to bring in meaning?
- *Color*: This concern with the effective use of background and text colors when designing the website. According to background color, light colors are preferred to be used (Wenham and Zaphiris 2003). Concerning text color, it is advisable not to exceed four colors within the same page (Wenham and Zaphiris 2003).
- *Image/Sound/Video*: It concerns with the non text elements which are used within the website. Few number of image/sound/video should be used and the size should be small since large size of image/sound/video per page will slow downloading the page which is not preferred by users (Yoo and Jin 2004). Alternative text should be used for all non-text elements (Kokkinaki, Mylonas, and Mina 2005).
- *Text*: It concerns with the characteristics of text used within websites' pages. There should be consistency in text. Pages should use one font size and one font style except for titles (Yoo and Jin 2004). Pages shouldn't use all capital letters unless in titles or headings since they are hard to be read and space wasting (Signore 2005). There should

be white space or breathing space between page elements to avoid crowded pages (Lin and Joyce 2004). Different or multiple headings such as titles, sub titles, sub titles are preferred as appropriate (Yoo and Jin 2004). If pages use scrolling text, it shouldn't hide a large amount of information (Yoo and Jin 2004, Signore 2005). Pages should first show the text followed by the image(s).

- **Organisation Quality Dimension**

Hasan and Abuelreb (2008) observe that this dimension concerns with the logical grouping, categorization, or structure of websites' elements in order to help the user to reach the required information quickly, navigate easily within the website, feel comfortable within its layout consistency, and keep him/her informative that he/she is still in the same website (Rocha 2012). The most important elements to consider under organization quality dimension include:

- *Index*: Is an index or links to all the website's pages available from the main page, so that the user can have an idea about all main categories of the website?
- *Mapping*: Is there adequate website map or navigation bar/menu available in each page to facilitate navigating the website? Can a user know the current page that he/she is in while browsing from the navigation title?
- *Consistency*: Is the general layout of each page consistent throughout the website?
- *Links*: Are links working properly? Can it take the user where he/she intends to go? Are there assistant links in each page so that the user can get back to the main page from every sections of the website? Can it help the user to return to the top of the page within the long pages of the website? Can the user return to the original website when he/she follows external link of any page? Are worthy links that take user to other related websites available? Aren't there dead links? Does the link color change after the user has visited it?
- *Logo*: Is the Organization logo clear and noticeable in every page of the website?
- *Domain*: Does the organization have a meaningful name related to the service it provides and according to the net standards?

These elements need to be assessed to determine the organization quality dimension.

- **User-friendly Quality Dimension**

This concerns with many issues that help any user regardless of his/her education or experience to find the needed information within a reasonable

time, the capability of the website to maintain specific level of performance when used (Lautenbach 2006), and interactivity or connectivity which emphasize the existence of interaction between user and website using different tools (Rocha 2012). The following indicators and check elements need to be considered when assessing user-friendly quality dimension:

- *Usability*: Is the website easy to use, understand, operate, find information, or navigate? Is it easy to find the website using external websites? and is it clear to the user that new information is added to the website?
- *Reliability*: According to Tan… et al. (2008), reliability governs the degree to which the functionalities offered consistently deliver on promised outcomes while ensuring that the execution sequence and performance of these service functionalities do not fluctuate from citizen to citizen. Questions to ask include: is the Website's address appropriate and easy to remember? Does it have short download time? Is there multi browser support? The website should not be over crowded with adverts to avoid long time downloading of website's pages and there should be a way to measure its efficiency by counting the number of visitors (Delone and Mclean 2003)
- *Interactive features*: Does the website have clear instructions to use different parts/sections/forms of it? Does it have help function and clear error messages available to help users? Is there FAQ that summarizes frequently asked questions and their answers? Is there effective internal search tool to search the content of the website? Does communication channel and feedback exist between user and website through email, chat rooms, online community, or suggestion form? Are there follow-up services offered and users can track their orders/requests easily? Modern websites present a significant variety of features, complexity of structure and plurality of offered services (Grigoroudis … et al 2008).
- *Security/Privacy*: In order to gain users' trust, effective mechanisms are used to keep the transactions secure. In order to gain users' confidence, privacy of personal information is needed so that information can't be handled or read by unauthorized users (Webpartner 2007).

Provision of business information to SMEs through websites

For effective provision of business information to SMEs, the business information needs of the SMEs should be known. Many studies have been conducted on the business information needs of SMEs in East African regions. The common business information needs according to these studies (Okello-Obura… et al 2006, 2007, 2009, 2010, Moyi 2000; Kibera 2000)

include: information on finance/capital/loans; information on local markets; information on business management skills; information on appropriate technologies; information on business competitors; information on security; information on international markets; information on foreign exchange; information on government policies, taxes, incentives and regulations; and information on tender and contracts. Okello-Obura … et al (2008) specifically argue that this information can be grouped as:

- Business Legal Information- to include information on national legislation or acts governing the importation of goods and services into the country, including technologies; exchange control acts and regulations; laws governing the registration of different types of companies, as well as other company laws; laws governing the taxation of businesses in the country; regulations governing the importing of selected goods/raw materials into the country; and international trade conventions.
- Business Technical Information- to include information on details of relevant technologies available in the country and adequate information and knowledge on these for new products/services development, design or innovation; the ICTs, especially the internet and training opportunities for the SMEs and other business partners; professional and technical expertise available in the country; the status of patents relating to the selected technologies; consultancy services that are available in the country and their terms and conditions for services/access; types and capacity of major laboratory equipment and production machinery that is available from manufacturing firms and other institutions in the country; local and international standards/norms/specifications relating to the technologies under consideration.
- Business economic information- to include information on: national economic indicators; local markets, export markets and market trends for identified products; comparative costs of identified technologies from different sources; performance analysis of approved contracts in the country; inflation rates in the country, future economic focus, foreign exchange rates and performances; the different types of loans offered by the banks, financial institutions, like micro-finance and government; raw materials; business opportunities in neighboring countries
- Business management skills information- to include information on- business book-keeping and accounting; customer care and the provision of quality services; writing business proposals and technical reports; and business planning and forecasting.

- Business contacts information- to include information on business and marketing partners, technology providers, public incentives bodies, etc.; and telephone contacts, e-mail, web addresses (uniform resource locators) of registered business competitors (Okello-Obura … et al 2008)

If the governments do recognize that SMEs are the pillars of any economy and information is a vital resource for development, the issue of provision of the above business information using government websites should thus be taken seriously. Websites as are known can be accessed from anywhere. SMEs would take the advantage of this and access business information or references for business information from anywhere using any gadgets like mobile phones within their disposals. It is generally agreed that an essential element for the SMEs is the ability to easily access business support services and/or business centers which can provide business information and business support services (Okello-Obura … et al 2009; Moyi 2000). Government websites can be very useful avenues for this. Creating web links that specifically address the business information needs and advisory services can play a significant role in promoting the operations of the SMEs.

The main emphasis in the government's IT application guidance services should be to implement a range of e-enablement guidance plans that can help business enterprises to make effective use of computers and information technology to streamline operating procedures and reduce operational, managerial, marketing and sales costs. At the same time, by helping firms to undertake e-enablement, there should be e-support services. The commitment on this can be demonstrated where the services and relevant business information are visible through government websites. There should be interest in building an environment conducive to knowledge sharing like for instance in Taiwan. The content available on the Knowledge Management Plan for SMEs website (http://smekm.moeasmea.gov.tw) includes case studies, digital materials, a "yellow pages" database of experts in the field, and a knowledge management software "tool box," etc. E-Newsletters are used to keep business enterprises up-to-date with the latest developments in knowledge management planning and applications. All these should be reflected on Government websites responsible for Trade. In most cases, it is common to find you will find that governments have a lot of initiatives to support SMEs, but rarely do you see these initiatives reflected on their websites. It is against this background that this study was instituted to assess the provision of business information to SMEs by government relevant ministries in East Africa.

3 Methodology

This was purely a desk research. Wills (2008) observes that "Desk Research used to be a misnomer, but no longer". "The last 10 to 15 years have seen the Internet dominate the survey world, and today, valuable Desk Research can be done quickly, easily and at low cost" (Wills 2008). The observation guides were developed prior to data collection and critiqued by two senior information science researchers. The first guide was based on the Hasan and Abuelreb (2008) guide on assessment of website quality as discussed under Section 2. According to Hasan and Abuelreb (2008), this framework is capable of reliable applications across a broad range of websites regardless of the service they provide.

The Second guide that was also critiqued by the same two Senior researchers was formulated based on the common business information needs as discussed under Section 2. In assessing the quality of the websites, the quality elements under content, design, organization and user-friendly dimensions were used. This took two weeks. The first week covered the assessment of the websites of the Ministries responsible for trade of all the four countries considered in the study and the second week was used for the review to see that no errors were made and also determine whether there was added new information useful for the assessment. The assessment of the websites for the provision of business information was done in one week and a review of the assessment made for four days. The whole data collection was carried out from 20th September 2012 to 15th October 2012. To delimit the study, only the websites for the Ministries responsible for Trade were assessed. These were deemed to be the most relevant Ministries dealing with SMEs. Four countries were considered, namely, Uganda, Tanzania, Rwanda and Kenya.

4 Findings

The findings of this study are reported by use of tables based on the objectives of the study.

Objective 1- Assess *the quality of the websites of East African Government Ministries responsible for trade*

To assess the quality of the websites, quality elements were examined under the following themes: content, design, organization and user-friendly quality dimensions. The findings are reported using Tables for each of the themes or quality dimensions.

Table 1: Assessment of Content Quality dimension of Websites

Indicators and check elements of the content quality dimension	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Timely *-How frequently the website is updated*	*Not shown*	*Not shown*	*Not shown*	*Not shown*
-When the website was updated	*Not shown*	*Not shown*	*Not shown*	*Not shown*
Relevant *-Organization's objectives/mission/vision*	*Yes*	*Yes*	*Yes*	*Yes*
-Organization's history	*Yes*	*Yes*	*Yes*	*No*
-Products or services	*Yes*	*yes*	*Yes*	*Yes*
-Photography of organization's facilities	*Yes*	*yes*	*yes*	*yes*
Multilanguage/Culture *-Use different languages*	*Yes*	*No*	*No*	*No*
-Information Presented to different culture	*Yes*	*No*	*No*	*no*
Variety of information Presentation *-Different forms (text, audio, video, …)*	*No*	*No*	*No*	*no*
Accuracy *-Precise information (no spelling, grammar errors)*	*Yes*	*Yes*	*Yes*	*Yes*
-Sources of information are identified	*Yes*	*Yes*	*Yes*	*Yes*
Objective *-Objective presentation of information*	Yes	Yes	Yes	Yes
Authority *-Organization's physical address*	*Yes*	*Yes-But no e-mail*	*Yes*	*Yes-But no tel.*
-Sponsor (s) of the site	*Yes*	*Yes*	*Yes*	*Yes*
-Manager (s) of the site	*No*	*No*	*No*	*No*
-Specifications of site's managers	*No*	*No*	*No*	*No*
-Identification of copyright	*Yes*	*Yes*	*Yes*	*Yes*
-Email to manager	*Yes*	*Yes*	*Yes*	*No*

When you observe Table 1, you notice that the websites of all the four Ministries do not indicate when the website was updated. This is very important in the website design since it helps to build the confidence of the users on the up to datedness of the contents in the website.

Table 2. Assessment of the Design quality dimension

Indicators and check elements of the design quality dimension	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Attractive				
-Innovative	Yes	Yes	Yes	Yes
-Aesthetic effects	Yes	Yes	Yes	Yes
-Emotional appeal	Yes	Yes	Yes	Yes
-Use of social media	No	Yes	No	Yes
Appropriateness				
-Appropriate to the type of website -Image used within it serves functional purposes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
-Balanced images, colors, and text)	Yes	Yes	Yes	Yes
Colour				
-White Background color	Yes	Yes	Yes	Yes
-Number of Text colors	5 colors	5 colors	4 colors	6 colors
Image/Sound/Video				
-Number of image/sound/video	Few photo, no videos	Few photo, no videos	Few photo, no videos	Few photos, no video/sound
-Size of image/sound/video	Small	Small	Small	Small
-Provide alternative text for all non text elements	Yes	Yes	Yes	Yes
Text				
-Consistency (type, style)	Yes	Yes	Yes	Yes
-Readable	Yes	Yes	Yes	Yes
-Relative size	Yes	Yes	Yes	Yes
-Capital letters	Yes	Yes	Yes	Yes
-Breathing space	Yes	Yes	Yes	Yes
-Multiple headings	Yes	Yes	Yes	Yes
-Scrolling text	Yes	Yes	Yes	Yes
-Sequential appearance of text then images	Yes	Yes	Yes	Yes

Table 3: Assessment of the Organization quality dimension

Indicators and check elements of the organization quality dimension.	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Index *Index or links to all website's pages*	*Yes*	*Yes*	*Yes*	*yes*
Mapping *-Adequate website map or navigation bar/menu*	*Yes*	*Yes*	*Yes*	*Yes*
-Current page	*Yes*	*Yes*	*yes*	*yes*
Links **-***Are the links working?*	Yes	Yes	Yes	Yes
-Assistant links (back to home, top, back to original website) presence	No	No	No	No
-Worthy links	Yes	Yes	Yes	Yes
-Color changes when page visited	Some Color change	Some Color change	No Color change	Yes
Domain - *Meaningful domain name*	Yes	yes	yes	yes
Logo *- logo is clear and noticeable*	Yes	yes	yes	Yes

Table 4: Assessment of User-friendly quality dimension

Indicators and check elements of the user-friendly quality dimension	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Usability *-Ease to use, understand, operate, find, or navigate*	*Yes*	*Yes*	*Yes*	*Yes*
-Easy to find using search engines	*Yes*	*Yes*	*Yes*	*Yes*
-Clear to user that new information added	*Yes*	*No*	*No*	*No*
Reliability *-Appropriate and easy to remember URL*	*Yes*	*Yes*	*Yes*	*Yes*
-Short download speed	*Yes(11.48Mb took less than a min)*	*Not downloadable*	*Not downloadable*	*Yes 2mins for 741.18kB doc*
-Multi browser support	*Yes*	*Yes*	*Yes*	*Yes*
-Work properly using different screen Settings	*Yes*	*Yes*	*Yes*	*Yes*
-Fewer adverts	*Yes*	*Yes*	*Yes*	*Yes*
-Way to measure efficiency by	*No*	*No*	*No*	*No*

counting number of users? -Website availability 7 days?	*Yes*	*yes*	*yes*	*Yes*
Interactive Features				
-Clear instructions	*Yes*	*Yes*	*Yes*	*Yes*
-Help function	*Yes*	*Yes*	*Yes*	*Yes*
-FAQ	*Yes*	*Yes*	*Yes*	*Yes*
-Effective internal search tool	*Yes*	*Yes*	*Yes*	*Yes*
-Feedback between user and website (email, chat, online community, suggested forms)	*Yes*	*Yes*	*Yes*	*Yes*
-Review of transactions	*No*	*No*	*No*	*No*
-Tracking order	*No*	*No*	*Yes*	*No*
Secure /Privacy -Security transactions -Privacy	*Yes* *Yes*	*Yes* *yes*	*Yes* *yes*	*Yes* *Yes*
Customization -Tailoring content to the needs of specific users	*Yes*	*No*	*No*	*No*

Provision of Business information to SMEs through Government Ministries Websites

In making the assessment, business information was grouped into 5 categories, namely: Business legal information, business technical information, business economic information, business management skills information and business contacts information. The section below reports on assessment of each of them and the findings are presented in the Tables, 5-9.

Table 5: Assessment of provision of business legal information

Business Information Needs	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Provision of Business Legal Information?				
-national legislation or acts governing the importation of goods and services into the country, including technologies;	No	Yes	Yes	Yes
	No	Yes	No	Yes

14

	Tanzania	Uganda	Kenya	Rwanda
-exchange control acts and regulations;	No	yes	Yes	Yes
-laws governing the registration of different types of companies, as well as other company laws;	No	Yes	Yes	Yes
-laws governing the taxation of businesses in the country;	No	Yes	Yes	Yes
-regulations governing the importing of selected goods/raw materials into the country; and	No	Yes	No	No
-international trade conventions.				

Table 6: Assessment of the provision of business technical information

Business Information Needs	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Business Technical Information				
-details of relevant technologies available in the country and adequate information and knowledge on these for new products/services development, design or innovation;	No	No	No	No
-the ICTs, especially the internet and training opportunities for the SMEs and other business partners;	No	No	No	No
-professional and technical expertise available in the country;	No	No	No	No
-the status of patents relating to the selected technologies;	No	No	No	No
-consultancy services that are available in the country and their terms and conditions for services/access;	No	No	No	No
-types and capacity of major laboratory equipment and production machinery that is available from manufacturing firms and other institutions in the country	No	No	No	No
-local and international standards/norms/specifications relating to the technologies under consideration.	No	No	No	No

Table 7: Assessment of the provision of Business economic information

	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Business economic information				
-national economic indicators;	No	No	No	No
-local markets, export markets and market trends for identified products;	Yes	No	No	No
-comparative costs of identified technologies from different sources;	No	No	No	No
-performance analysis of approved contracts in the country;	No	No	No	No
-inflation rates in the country, future economic focus, foreign exchange rates and performances;	No	No	No	No
-the different types of loans offered by the banks, financial institutions, like micro-finance and government;	No	No	No	No
-raw materials;	No	No	No	No
-business opportunities in neighbouring countries,	No	No	No	No

Table 8: Assessment of provision of business management skills information

Business information needs	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Business management skills information				
business book-keeping and accounting;	No	No	No	No
customer care and the provision of quality services;	No	No	No	No
writing business proposals and technical reports; and	No	No	No	No
business planning and forecasting.	No	No	No	No

Table 8 shows that of the four countries, none of the Ministry of Trade website provides business management skills information.

Table 9: Assessment of the provision of business contacts information

Business Information needs	Tanzania Ministry of Industry & Trade	Uganda Ministry of Trade, Industry & Cooperatives	Kenya Ministry of Trade	Rwanda Ministry of Trade & Industry
Business contacts information				
-business and marketing partners, technology providers, public incentives bodies, etc.	Yes	Yes	Yes	Yes
-telephone contacts, e-mail, web addresses (uniform resource locators) of registered business competitors.	No	No	No	No

5 Discussions

In a recent study by Alomari… et al. (2012) in Jordan, it was found out that contrary to previous research; trust in the internet, relative advantage, compatibility and perceived ease of use were not found to be significant predictors of intention to use e-government websites. However, trust in government, website design, beliefs, complexity and perceived usefulness were significant factors in Jordanian citizens' intention to use e-government websites (Alomari… et al. 2012). This shows that the quality of the design of the website and usefulness in meeting the needs of the users are key issues

to take note of. An analysis of the findings (Tables 1-4) on the assessment of the quality of the government's websites of the ministry in-charge of trade and industry in East Africa indicates compliance to quality dimensions of website construction. However, there was noticeable absence of use of social media like face-book on Uganda and Rwanda websites. Social media are powerful tools for interaction and helps in getting feedback from website users. Unfortunately, all the websites did not have non-text elements apart from photographs. There is need for the websites to have multimedia. Multimedia represents various types of media content, used together. The use of multimedia in websites has helped the Internet evolution a lot and made the web pages much more interesting for every user. Those who are not interested in reading the text can view the video and listen to the sound. However, caution should be taken on the sizes of the non-text media. This is because large size of image/sound/video per page slows downloading speed of the page and this discourages users from using the website.

A good website should also have assistant links available in each page so that the user can get back to the main page from every section of the website. It also helps the user to return to top of the page within the long pages of the website and can return to the original website when he/she follows external link of any page (Basu 2002). Saha, Nath and Salehi-Sangari (2012) conclude it well when they note that accessibility and the navigation facility are important in determining a system quality.

Despite the importance of assistant links, none of the websites provided these links. This is a serious omission that should be corrected. Also a good website should have the provision of a change of colour of the link after the user has visited it (Basu, 2002; Heimlich and Wang, 1999). Unfortunately for Tanzania, Uganda and Rwanda, some links do change colours but for Kenya all links do not change colours after they are visited. This should be corrected since it guides the user to remember the links visited and the ones not visited.

Websites should also have indications for users to show that new information is added. It is only for Tanzania that you could see that new information was added. The indication is very important because it helps to build trust among the users on the website that new information is always added. It encourages frequent visiting of the website. This is confirmed when Warkentin … et al. (2002); Tan… et al. (2008) note that building citizens' trust towards e-government services is being deterministic of their adoption intentions towards public e-services. The way the website is design in this regards, has a big contributing factor in adoption of the e-services utilization.

One of the challenges to most websites in African countries is the download speed because of either poor construction of websites crowded with images or slow internet connections due to limited bandwidth (Saha… et al 2012). The only website that had high speed was for Rwanda. A 741.18KB document took 2 minutes to be downloaded. This in comparison with the downloading time of other documents from Tanzania, Uganda and Kenya was relatively a shorter download time. Even some documents failed to be downloaded despite the fast internet connections where the study was conducted from.

Despite the value in tailoring the content of the website to key users, it was only Tanzania that had this in its websites clearly marked sections for the SMEs, the Industrial Sector and Marketing Sector. This helps in guiding the users in looking for the information. On a disappointing note, none of the websites had provision of measuring efficiency through tracking users.

Regarding the provision of business information to the SMEs through these websites, all the websites were not to the task. Business economic, management skills and technical information, that include information on: national economic indicators; local markets, export markets and market trends for identified products; comparative costs of identified technologies from different sources; performance analysis of approved contracts in the country; inflation rates in the country, future economic focus, foreign exchange rates and performances; the different types of loans offered by the banks, financial institutions, like micro-finance and government; raw materials; business opportunities in neighboring countries; information on-business book-keeping and accounting; customer care and the provision of quality services; writing business proposals and technical reports; and business planning and forecasting; on details of relevant technologies available in the country and adequate information and knowledge on these for new products/services development, design or innovation; the ICTs, especially the internet and training opportunities for the SMEs and other business partners; professional and technical expertise available in the country; the status of patents relating to the selected technologies; consultancy services that are available in the country and their terms and conditions for services/access; types and capacity of major laboratory equipment and production machinery that is available from manufacturing firms and other institutions in the country; local and international standards/norms/specifications relating to the technologies under consideration (Okello-Obura … et al 2008) were not provided at all through the websites of these Ministries. There is a wide spectrum of useful business

information for SMEs. As Jorosi (2006) notes, "today's business environment is fraught with uncertainty, diverse global players, rapid technological change, wide spread price wars and seemingly endless re-organisation, all of which exert pressure on the business environment". In short, the business environment is variable or volatile and this volatile situation requires timely access to relevant business information. East African Governments should recognize that SMEs are the pillars of the economy and for them to perform well, access to relevant business information updated frequently through websites is prudent. When you observe Table 9, you notice that all the websites do not have telephone contacts, e-mail, web addresses (uniform resource locators) of registered SMEs. A list of all registered SMEs should be put on the websites. This helps SMEs to know their competitors and which businesses that do not have over concentration by other business enterprises.

On a positive note, it was impressive to note that Tanzania had weekly livestock marketing information, Food crop marketing information, Marketing opportunities information and information on investment opportunities given under the Industrial Sector for the consumption of the SMEs. There was also information on Rural Micro Small and Medium Enterprises Support Programmes. The worst for Tanzania was that there was no legal information. There was only business licensing link which could not take you to any Act, statute etc. when clicked. Business Legal Information as noted by (Okello-Obura … et al 2008) include information on national legislation or acts governing the importation of goods and services into the country, including technologies; exchange control acts and regulations; laws governing the registration of different types of companies, as well as other company laws; laws governing the taxation of businesses in the country; regulations governing the importing of selected goods/raw materials into the country; and international trade conventions. These are valuable information that SMEs need to access. It is Uganda's website that provided all relevant business legal information and well structured under: Business registration laws, Cross border trade, Investments laws, Laws facilitating general trade, Laws regulating standards, Tax laws and Trade finance. This was found to be the best way of providing business legal information to the SMEs which other countries should adopt. Kenya only had the constitution of the country and Document of Assistance to Micro and Small Enterprises programme without other laws regulating trade or businesses in the country. Information preciseness, timeliness, and sufficiency are found to be key measures of information quality in government e-services (Saha … et al. 2012) which East African government ministries of trade should take seriously.

6 Conclusion and Recommendations

The seamless diffusion of ICT into public administration has radically altered its bureaucratic structure by expanding the scope and capabilities of public services through new communication media and among them is the website. Although the Ministries responsible for SMEs in East Africa as evidenced from the study have well designed websites requiring little adjustments, their utilization to provide business information to SMEs remains a daunting challenge. The study has established that East African governments are not utilizing official ministerial websites to provide the needed business information. SMEs are the key pillars of economic development and every effort need to be done to provide them the needed business information. Based on this conclusion, this study therefore recommends that:

- Governments of East African Countries should make the necessary efforts to gather and synthesis the needed business information by SMEs and put it on the websites. Clearly marked Sections within the website should be created for business information needs of SMEs and divided in Business Legal Information, Business Economic Information, Business Management Skills Information, Business Technical Information and Business Contacts Information. The information under these sections should be updated regularly as necessary.
- Government Website designers should be sensitized on the role of SMEs in economic development and the need for accurate and timely business information for their business transactions. Government Websites developers should be knowledgeable on the different kinds of business information needs. Information Scientists could be employed to work with Website Designers to help address the SMEs needs
- East African Governments should provide information on registered SMEs like names of businesses, type of businesses being conducted, e-mail contacts, telephone, web addresses etc on the websites. This can be created as registered SMEs link. This will help in building networks among the SMEs and also getting to know the competitors.
- The Ministries' websites should include a tracking system to establish the use of websites. Social media like face-book, twitter should be included where SMEs can follow on events in the business world through twittering or face-booking. This can also be used to announce availability of new information added to the website
- The specifications of website managers should be given so that comments or issues are directed directly to the site managers

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