External factors affecting E-Commerce institutionalization in Tanzania: a test and validation of Small and Medium Enterprise claims

Kabanda Salah, University of Cape Town, South Africa, salah.kabanda@uct.ac.za

Brown, Irwin, University of Cape Town, South Africa, irwin.brown@uct.ac.za

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ABSTRACT

The purpose of this study is to interrogate the claims made by small and medium enterprises (SMEs) in Tanzania regarding the environmental factors that negatively affect their adoption of E-Commerce. A content analysis approach was used to interrogate institutional policy documents to determine the frequency of use of specific arguments that either support or negate the SMEs' claims. The theory of communicative action was used as a framework to analyse the truthfulness and comprehensibility of the claims made with regards to the SME perception of environmental factors that impede E-Commerce adoption. SMEs made claims that there was a lack of institutional readiness for E-Commerce in Tanzania, as well as inadequate market readiness, supporting industry readiness and socio-cultural readiness. The findings from the content analysis show that the Tanzanian ICT policy and SME policy pay scant attention to issues relating to such e-commerce readiness factors. The validity claim analysis also did not reveal distorted communications by SMEs, but corroborated their claims that indeed environmental factors were not conducive to their institutionalisation of E-Commerce. These findings call for a national-level reassessment of E-Commerce policies in Tanzania.

Keywords: E-Commerce, SMEs, Tanzania

INTRODUCTION

Information, Communication and Technology (ICT) has drastically changed the way people and organizations interact. It has revolutionized most parts of the world, making it possible to perform activities that were once not possible, especially in the most vulnerable economies of the world. ICT adoption, specifically E-Commerce in these areas is still weakly adopted. This is a setback because E-Commerce has for long been identified as one of the four key areas required to exploit ICTs to best advance social and economic development (Esselaar & Miller, 2001, 2). The slow rate and in some cases lack of adoption is posited to be as a result of contextual organizational and environmental factors. Molla and Licker (2005) propose a model specific to the study of E-Commerce in developing countries. The model has two constructs namely

Perceived Organizational eReadiness (POER) and Perceived External eReadiness (PEER). The organizational construct describes the organization characteristics in terms of demographics, perceptions with regard to E-Commerce and how ready the organization is in terms of resources such as finance, technology and expertise to adopt and use E-Commerce to improve competitiveness. Molla and Licker (2005, 878) define external factors to include 'market forces, the government, and other supporting industries'. Using the Molla and Licker (2005) framework as a basis for the investigation of E-Commerce enablers and barriers in Tanzanian Small and Medium Enterprises; Kabanda and Brown (2015) unearthed contextual understanding of E-Commerce and the challenges faced by Tanzanian SMEs. Their findings show that in order for institutionalization of E-Commerce to take place, the following environmental factors need to be addressed: institutional awareness of E-Commerce and willingness to adopt; government's commitment towards the development of initiatives and programmes that will result in E-Commerce awareness and adoption; the existence of support from the relevant industries, specifically the ICT industry, with regard to E-Commerce endeavors; and the understanding of social and cultural characteristics that impede the adoption and advancement of E-Commerce. The goal of this study is to interrogate the validity of claims made by SMEs that environmental factors play a significant role in inhibiting their adoption of E-Commerce. This exercise is motivated by the fact that researchers tend to accept unquestioningly what interview respondents tell them, without seeking for corroborating evidence. Myers & Klein (1999) recognize this limitation by including the principle of suspicion as one of 6 key principles for interpretive research. This principle demands that researchers be "sensitivity to possible 'biases' and systematic 'distortions' in the narratives collected from the participants". The research also draws inspiration from the need for 'social policy formulations to be based more on evidence, and this implies a heightened role for the research that will be capable of delivering such evidence' (Harris 2015, 22). This study illustrates a means by which qualitative findings about the environment gathered from respondents may be corroborated. Specifically, this study proposes to validate Tanzanian SME claims that their low level of E-Commerce adoption and institutionalization is as a result of the lack of government readiness, market forces readiness, supporting industry readiness and socio-cultural readiness.

E-COMMERCE

This study views E-Commerce as a form of innovation in which parties interact electronically to perform one or more of the following functions depending on their contextual resources and constraints: (i) communication, such as delivering information, products/services, or payments via telephone lines, computer networks, or any other means; (ii) the application of technology toward the automation of business transactions and workflow; (iii) the meeting of the desire of firms, consumers, and management to cut service costs while improving the quality of goods and increasing the speed of service delivery; (iv) the provision of the capability of buying and selling products and information on the Internet and other online services (Boateng et al., 2008; Ngai & Wat, 2002). E-Commerce is divided into four main categories, namely, Business to Consumer (B2C), Business to Business (B2B), Consumer to Consumer (C2C), and Government to Business (G2B). Business to Consumer transactions involve the exchange of products, services, or information between businesses and the general public typically through catalogues using shopping cart software. The typical user is transformed into a computer user, and the physical store is transformed into a 'phenomenon that is information technology intensive - a Web site' (Koufaris et al., 2001, 115).

Business to Business (B2B) involves the exchange of products, services, or information between 'two separate business parties', such as between a manufacturer and a wholesaler or between a wholesaler and a retailer (Chong et al., 2011, 518). It involves many more participants than B2C, needs a large infrastructure, and its volume of transactions is usually higher than the volume of B2C transactions. Consumers can also exchange products, services or information between themselves. Consumer to Consumer (C2C) transactions takes place between consumers who are no longer totally reliant on corporations, but are increasingly looking to conduct their own business transactions mainly in auctions, online communities, chat rooms, third-party consumer listing services, and Web-based discussion forums where they can buy and sell their products and services via several different payment methods of mailing cheques or cash to the seller via online payment systems (González, 2004). In this manner C2C markets eliminate the 'intermediary who otherwise pockets a certain percentage of the selling price as profitability' (Strader & Ramaswami, 2002, 46). Organizations and consumers can also conduct business with the government via computers and a Web-enabled presence (Evans & Yen, 2005). It is an exchange of products, services, or information between consumers (C2G), businesses (B2G) and

the government (G2G) with the government (this can range from procurement to government collecting fees such taxes. Regardless of the type of E-Commerce, they are all affected by contextual environmental and organizational factors. This study focuses on environmental factors.

ENVIRONMENTAL FACTORS AFFECTING E-COMMERCE

The successful adoption of E-commerce in developing countries depends on how ready the organization is for adoption and also how supportive the environmental is. The environmental factors affecting organizations include market forces, the government, and supporting industries. Market forces e-Readiness refers to the application and use of E-Commerce by a firm's competitors, customers, suppliers, and other business partners (Zhai, 2011). It is the assessment that an organization's business partners such as customers and suppliers allow for the electronic conduct of business (Molla & Licker, 2005, 882). It also pertains to demographics, measured by population composition and income (Xu, 2008). Prior to making a business decision and strategizing, an organisation needs to consider the readiness of the market because if organisations perceive market forces as ready for E-Commerce they are more likely to adopt E-Commerce at a more sophisticated level (Zhai, 2011). Government policies have been reported as an important determinant of IT adoption, especially those relating to improving telecommunications infrastructure, cost and service, a fair tax policy for online transactions, financial incentives, a national E-Commerce strategy, enhancement of government E-Commerce use, and the provision of E-Commerce training (Zhu & Thatcher, 2010). The liberalisation and privatisation of the telecommunications sectors have been deployed as strategies to ensure growth in the telecommunication and ICT sector in developing countries. The liberalisation of the telecommunication sector can result in an increase in competition necessary for the reduction of high prices associated with international leased lines, as well as the elimination of barriers to the entry of foreign investors, whilst providing technical expertise and human resources necessary to support the growth of the industry (Wilson & Wong, 2003). According to Molla and Licker (2005, 882) the success of E-Commerce also depends on the support industries readiness to provide the right environment for E-commerce. Factors relating to reliable Internet technology infrastructure, reliable logistic services and universal communication standards and protocols, availability of commercial infrastructure, such as electricity and transportation services to

support the existing and future B2B E-Commerce activities in SMEs are highly important (Janom & Zakahria 2009, Okoli et al., 2010). These facilities in most developing countries are generally poorly developed, so much so that they are unable to deliver timeously to meet E-Commerce requirements (Zhai, 2011). This study is a follow up to the paper by Kabanda and Brown (2015) that identified several E-Commerce enablers and barriers in Tanzanian SMEs. Figure 1 shows a summary of their findings. SME owners perceive institutional e-Readiness, industrial support, market support and socio-cultural norms as hindrances to E-Commerce.

Themes derived from thematic analysis	SME Claims
Lack of institutional e-Readiness	Irrelevant and incomprehensive ICT policy for E-Commerce
	Lack of government commitment to ICT education
	Lack of government commitment to ICT support
	Government not e-ready/resistant to use of ICT/E-Commerce transaction
Lack of industrial support	Lack of physical infrastructure
	Lack of ICT expertise
	Lack of ICT Infrastructure
	ICT companies and institutions not supportive
	Lack of financial assistance
	Poor service delivery from ISP
Lack of market e-Readiness	Local consumer not ready for E-Commerce
	Lack of E-Commerce awareness
Lack of Socio-cultural Readiness	Bargaining
	Lack of trust
	Language
	Dependency syndrome

Figure 1. SME claims on environmental factors that impact intentions to institutionalise E-Commerce (Kabanda & Brown, 2015).

METHODOLOGY

Research Approach

This study followed an interpretive perspective in order to understand how SME claims lead to their lack of adoption and institutionalisation of E-Commerce. An interpretive paradigm can provide the understanding of how specific conceptions and social practices lead to various behaviours (Alvarez, 2002). In so doing, the paradigm offers this study an opportunity to understand the contextual implications of SME claims within the institutional realm of policies; and how policies as structural norms influence and are influenced by SME's perception and decision making about E-Commerce and ICTs in general.

Data collection

The data was firstly derived from SME claims that environmental factors play a significant role in whether or not to adopt and institutionalise E-Commerce. These claims were reported in Kabanda & Brown (2015) and are summarized in Figure 1. To assess the truthfulness of the claims, institutional policies which include the Tanzanian ICT policy (National Information and Communications Technologies Policy, 2003) and SME policy (Tanzania Small and Medium Enterprise Development Policy, 2002); media texts on E-Commerce, telecommunication infrastructure and ICT in general were used as data sources. The policies were chosen first, as they provide the complete institutional account, specifically government record, whereas a participant may consciously or unconsciously leave out crucial information. Although technology has changed, the Tanzanian policies for ICT and SMEs have not changed since 2002 and 2003. Data was collected via a desktop search method for government official documents. Although some of the documents were retrieved, most were not updated and were inaccessible. This necessitated a further face-to-face request for government documents. The face-to-face encounter provided an opportunity for an interview with two government spokespersons, one from the SME sector on issues of E-Commerce, and another from the ICTs and telecommunication sector. This provided for additional corroborating data.

Data analysis

The purpose of the analysis is to corroborate SMEs claims that their low level of E-Commerce adoption and institutionalisation is as a result of environmental factors, namely the lack of government readiness, market forces readiness, supporting industry readiness and socio-cultural readiness. For the corroboration, government policies were used with the intention of identifying areas of communication distortion. Although the authors are aware that institutional policies have agendas of policy-makers embedded in them, it is the intention that by uncovering corroborating evidence from institutional policies, this study brings to the fore the need for institutional change – a change that will provide a conducive environment for E-Commerce. Data analysis was done in two phases. Firstly a content analysis was conducted on each of the policies; and secondly an analysis using the theory of communicative action of Habermas was done (Cukier et al., 2009).

Content analysis

The data was analysed using content analysis on individual documents to determine frequency of use of specific terms associated with the SME claims (Cukier et al., 2009). Content analysis is a systematic and quantitative research technique for analysing message content and message handling with the intention of making replicable and valid inferences from data to context (Krippendorff 1980). The Tanzanian ICT policy and SME policy became the main data corpus used for this analysis. The policies were read through several times and analysed based on the context of SMEs' perceptions of E-Commerce. The analysis was strictly bounded by issues pertaining to the E-Commerce phenomena. Each policy was regarded as an individual article from which the researcher determined the frequency of use of specific terms. The terms were derived from SME claims. For example, SMEs are cognisant of a lack of institutional e-Readiness, and this perception was evident in the following SME claims - the lack of a relevant and comprehensive ICT policy for E-Commerce, government's resistance to ICT-based transactions, and support for ICT education. Each of these claims, presented as themes, became part of the coding system as shown in Figure 2 (rows 1 and 2).

Theme	**Lack of Government Commitment to ICT education and awareness**								
SME claim	**ICT education**						**Human Resource/Expertise**		
Keywords	Education	Training	Learning	Teaching	Literacy	Awareness	Human capital	Expertise/ Professionals	Knowledge/ Skills
Frequency	25	25	16	6	3	9	14	6	33
ICT Policy statements	The possibility of teaching ICT literacy need not be constrained by an absence of computer equipment, since pupils in schools unable to afford such equipment might be guided to construct model computers out of locally available materials. This allows the pupils to gain an understanding of the principles and values associated with computers, networks and peripherals without having real computers in their schools. If teachers were trained accordingly, this type of ***education*** will reach even the remotest households. (page 2).						The supply of ***IT professionals*** is considerably less than current demand, especially in the areas of higher skills and experience. Furthermore, job mobility in the ICT sector is very high. Therefore, there is a need for increased emphasis on the ***human capital development*** (page 8).		
	Policy objective: give special attention to providing new ***learning*** and ICT access opportunities for women and youth, the disabled and disadvantaged, particularly disenfranchised and illiterate people, in order to address social inequities (page 15).						They have brought about changes in other areas, particularly in knowledge management and ***human resources*** development (page 3).		
	The Government will promote and support the development of qualified personnel for efficient policy-making, regulation and management of information resources and services including the education, ***training and retraining*** of ICT managers, professionals and other operatives (page 15).						There is a shortage of well-qualified ***professionals*** of ICT in Tanzania. There are also no well-established ICT professional profiles, and a standardised process of evaluation or certification of the different courses offered by various training centres is lacking(page 10).		
	Policy challenges: Increasing the ***ICT awareness***, knowledge and skills of public servants (page 20).						Policy objective: empower and facilitate Tanzania's participation in the Global **Knowledge** Society (page 11).		

Figure 2. Frequency analysis of keywords

Derived from the theme 'lack of government commitment to ICT education and awareness', were two categories, namely ICT education, and ICT human resources/expertise respectively.

Each category was further subdivided into several keywords associated with it – specific words that could mean the same word in the policy documents. For example, the category 'ICT education' had six keywords associated with it: education, training, learning, teaching, literacy and awareness (row 3). A process of identifying the recurrence of each keyword, or counting it to determine its frequency of use followed. The frequency of each term in the ICT policy statement appears in row 4. Each repeated term and concept is conceptualised around SMEs and the E-Commerce phenomena. The number of times a term appears does not provide insight into the meaning of the texts, but it does give some indication of the themes that dominate the discourse as well as the omissions that may suppress understanding (Cukier et al. 2009). In addition to the frequency of terms, it should be noted that the researchers continually checked their growing interpretation to the research question with regard to SME claims against the policy documents and interview notes. The researchers looked not only at confirming evidence of emerging themes but also at disconfirming evidence that needs to be considered, as they present their case for interpretation.

Analysis of validity claims

The data was further analysed using the theory of communicative action (TCA) which defines communicative action as "linguistically mediated interactions in which all participants pursue illocutionary aims, and only illocutionary aims, with their mediating actions of communication" (Habermas, 1984: 295). Illocutionary aims are those in which the speaker's intent is to perform an action through his or her words. The speaker reveals, expresses, asserts or commits during speech, and through these types of utterances, takes on a form of social action. Habermas also identifies strategic action (Habermas, 1984) – an interaction where the speaker has perlocutionary aims (i.e., intentions to produce some effect upon the hearer). Against this background, the theory of communicative action provides the ability to test validity claims associated with the action type enacted by the speaker or writer with the intention of detecting and analysing distorted communications – that is, communicative acts that are false, incomplete, or unwarranted (Ngwenyama & Lee, 1997). The truthfulness validity claim pays attention to the propositional content of the communication. To test the validity of a truth claim, the authors seek to answer the question: 'Is what is said factual or true, i.e. does what is said correctly correspond to the 'objective' world?' (Cukier et al., 2009, 6). Testing criteria used include a check for

falsehood and logical consistency in each claim. To test validity for comprehension or clarity, the validity test focuses 'on whether the communication is complete, sufficiently intelligible, or whether the level of detail too burdensome for the reader or hearer' (Cukier et al., 2009, 5). The focus is in assessing the 'technical and linguistic clarity of the communication of the utterance', specifically on 'whether the message is clear or not or whether it consists of some jargon that make the message difficult to understand' (Ngwenyama & Lee, 1997, 155). This study used these validity claims to test for truthfulness and comprehensibility of SMEs perceptions of environmental factors that impede E-Commerce. Figure 3 depicts the analysis process for this study.

Environmental factor	SME Claims	Validity claim	Repertoire
Institutional e-readiness Industrial support Market e-readiness	Irrelevant and incomprehensive ICT policy	Comprehensiveness, Truth	ICT Policy SME Policy Interviews (Gov1,2) EM1-11
	Lack of government commitment to ICT education	Comprehensiveness, Truth	
	Lack of government to ICT support	Truth	
	Government not e-ready/resistant to use of ICT/E-Commerce	Truth	
	Lack of physical infrastructure	Truth	
	Lack of ICT Expertise	Truth	
	Lack of ICT infrastructure	Truth	
	ICT Companies and institutions not supportive	Truth	
	No financial assistance	Truth	
	Poor service delivery from ISP	Truth	
	local consumer not ready for E-Commerce	Truth	
	Lack of E-Commerce awareness	Truth	
Socio-cultural readiness	Bargaining	Truth	
	Lack of trust	Truth	
	Language	Truth	
	Dependency syndrome	Truth	

Figure 3. Empirical analysis of validity claims.

FINDINGS

The results are presented as follows: firstly is the content analysis to outline the frequency of key terms; and then the validity claims attesting to the truthfulness and in some cases comprehensiveness of SMEs' claims.

Content analysis of policies

The content analysis provided the frequency of each keyword associated with each of the themes that form part of what SMEs perceive to be factors associated with E-Commerce adoption in Tanzania (Table 1). It should be noted that along with the frequency of theme appearance, each

theme was contextualised and embedded in the realm of the subject matter – environmental effects on SMEs adoption of e-commerce.

Environmental factors that affect E-Commerce in Tanzania			**ICT policy**		**SME Policy**	
SME claims	**Theme Category**	**Keywords**	**Freq.**			**Freq.**
Government resistance to ICT based transactions	Government support	ICT/E-Commerce/websites/ telecommunication/ E-Business	334	357	2	4
		E-government/ e-governance/ corruption/bureaucracy	10		2	
		Public service	13		0	
Commitment to ICT education and awareness /ICT expertise/ ICT companies and institutions not supportive/consumer readiness	Government support Industrial support Market support	Education	25	137	11	58
		Training	25		33	
		Learning	16		0	
		Teaching	6		0	
		Literacy	3		0	
		Awareness	9		6	
		Human capital/expertise/ professional	20		1	
		Knowledge/ skills	33		7	
Lack of government commitment to ICT specific endeavours in SMEs/industry financial assistance /service delivery	Government and Industrial support	Capital/finance	5	73	21	57
		Loan/ lending	1		4	
		Entrepreneurs	7			
		ICT Infrastructure/ physical & software resources & support mechanism	58		20	
		Physical infrastructure	2		12	
Irrelevant and incomprehensive ICT policy for E-Commerce	Institutional e-Readiness	Security/cybercrime/ encryption/ digital signatures/ copyrights/ intellectual property	11	37	9	28
		Privacy	2			
		E-Records and e-evidence	0			
		Language/local content	18		0	
		Implementation/ monitoring	6		19	
Cultural norms	Socio-cultural	Traditions, perceptions and values	14	36	6	7
		Trust	4		0	
		Local content	18		0	
		Donor Dependency syndrome	0		1	

Table 1. Content analysis findings of the policies

The first column shows the SMEs claims and Column 2 classifies the SME claims based on the environmental factors that affect E-Commerce. Column 3 shows the key words found in each of the policies that refer to the theme and its respective SME claim. Column 4 shows the frequency of each keyword count in the ICT policy. So for example, the claim *Government resistance to ICT based transactions* had a total of 357 appearances in the ICT policy. The last column, column 5 shows the frequency of each keyword count in the SME policy. It therefore follows that the claim *Government resistance to ICT based transactions* had a total of 4 appearances in the SME policy.

The findings show that the theme most addressed by the ICT policy was 'government resistance to ICT based transactions' which received 357 related citations from a data corpus of 9807 words of the ICT policy. However, there were 334 counts in the ICT policy describing the challenges and potential implementation plans for ICT/E-Commerce/websites; while 'government's actual use of ICT/ E-Commerce/websites' received limited attention (23 counts). Although the large number of times that this theme appears in comparison with other themes offers some indication of its dominance in the discourse, it should be noted that the frequency of its appearance in the entire policy is quite negligible. The same theme, however, received the lowest count of 4 when the SME policy was analysed. There was no instance of government's use of e-government applications for SMEs, although issues of 'bureaucracy' and 'government's need for ICT training' were identified and noted by each of the policies.

The next theme that received the most counts was 'commitment to ICT education and awareness' which had 137 frequencies of appearance in the ICT policy. The policy addressed key terms such as 'ICT education' 84 times and the key term 'Human resources/expertise' 53 times. The findings of the SME policy content analysis show that this was the theme that received the highest frequency count of 58 from amongst the ICT terms. Although this theme received higher counts than other themes in the SME policy, the total count remains negligible, given that the SME policy consists of 9122 words. In both policies, government continuously emphasised the policy challenge of 'bringing awareness of benefits of ICT access and training to the public' (ICT policy, page 22). The government will therefore 'encourage activities relating to lifelong training processes both formal and informal...' (SM policy, page 15). The findings show that the government future plans are to ensure ICT training takes place, which will not only encourage public awareness, but it will also improve human capital. However, these are future plans – plans

which have been there since the inception of the policy in 2003. Given that 10 years later there are still no clear implementation plans and strategies, it can be deduced that SMEs' claim that there is a lack of government commitment to ICT education and awareness is not entirely untrue.

SMEs claimed a 'lack of government commitment to ICT specific endeavours', specifically the provision of financial and ICT support such as training. The ICT policy content analysis reveals that these key issues were addressed by the policy 73 times with financial support receiving 13 counts and ICT support 60 counts. The results show that minimal attention was given towards financial support to SMEs to acquire and adopt technologies for E-Commerce. Although the ICT subtheme received 58 counts, each instance of these was associated with either the challenges of providing ICT support, or future plans as to how to do it. There was no actual indication of implementation plans for improving the provision of ICT support to SMEs. An analysis of content of the SME policy shows that the same theme received a frequency count of 57 in the SME policy. The lack of implementation plans is an indication that there is a lack of government commitment to ICT endeavours for SMEs – thereby confirming SME claims.

A theme that received the second lowest count in the ICT policy was the SMEs' perception of the existence of an 'irrelevant and incomprehensive ICT policy for E-Commerce'. The results show that the entire theme received 37 counts in the ICT policy. Policy implementation plans received 6 counts, and each count was not associated with how exactly the implementation plans of the policy would be conducted, when, and by whom. Similarly, the SME policy content analysis also revealed that the same theme received a low count of 28. In the ICT policy, the government acknowledges that the Tanzanian legal and regulatory framework is bureaucratic, costly and centralised. The findings of a lack of implementation plans, a legal framework not conducive for E-Commerce, and policies that are not available in local content, confirms SMEs' perception that although policies are made, they are irrelevant and incomprehensive for E-Commerce in SMs in Tanzania.

The theme that received the lowest frequency count in the ICT policy content analysis was the SMEs' perception that socio-cultural norms affected E-Commerce. This theme received 36 counts in the ICT policy, with language and culture as categories with the highest frequency of appearance. The SME policy count of this theme was 7, a very low mention of the theme. The low appearance of this theme suggested that government did not perceive cultural practices and

socio norms as barriers to ICT and E-Commerce adoption. Contextual data however show that socio-cultural factors such as bargaining, the "dependency syndrome" (unhealthy dependence on others) and bureaucracy do impede E-Commerce use (Kabanda & Brown, 2015). There seems to be conflicting evidence between the government stance and empirical contextual evidence which shows that 'despite a national drive to build a self-reliant nation, the "dependency syndrome" is prevalent in Tanzania….people depend on the government for their development and the government relies on donor assistance for its development programme (http://www.socialwatch.org/book/export/html/10712). According to the Tanzania development vision 2025 (http://www.mof.go.tz/mofdocs/overarch/vision2025.htm) 'external dependence and the erosion of confidence, dignity and determination have demobilized the ability to effectively utilize human, physical and mental capacities to take initiative and to earnestly search for creative options to solve developmental problems…..consequently, a culture of admiring "effortless" success has erupted and, with it, productive individual initiative and the spirit of the community development have not taken a positive shape'. These findings do resonate with SME claims regarding cultural beliefs and norms impeding e-commerce.

Analysis of SME validity claims

Institutional e-readiness: Lack of Government commitment towards ICT education

The findings show that the government is aware of the need for ICT education but acknowledges that the possibility of teaching ICT literacy is constrained by an absence of resources such as hardware, software, computer laboratories, other multimedia facilities and human expertise (ICT policy, page 2). The government recognises that one of the challenges it faces is in 'creating awareness among leaders and the public, and political championing of ICT' (page 12); 'increasing the ICT awareness, knowledge and skills of public servants' (page 20). The lack of awareness of ICTs and E-Commerce was one of the claims made by SMEs and a contributing factor in their lack of E-Commerce adoption. The government 'indicates that it will raise the level of awareness on the role and potential of ICT' (page 11) and bring 'awareness of benefits of ICT access and training to the public' (page 22), as well as 'promote ICT culture, general awareness and political e-readiness in Tanzania' (page 14). An initiative that SMEs felt was necessary to show commitment was by subsidising ICT education costs which were perceived to be very expensive. The ICT policy does not explicitly state that it would subsidise ICT

education, but provides a means of alleviating some challenges of providing ICT education like for example stating that ICT literacy teaching is to be guided by a construct model of computers out of locally available materials (ICT policy, page 2). The lack of subsidy for ICT education is seen as a hindrance to SMEs' use of ICTs and E-Commerce since subsidy programmes such as scholarships and non-binding loans can be instrumental in showing a government's commitment to ICT education and ultimately the development of ICT human resources expertise. Further corroborating evidence for SMEs' claims were made by the Tanzanian Ministry of Higher Education, Science and Technology who indicated that training is quite expensive and 'it is apparent that the cost cannot be borne by many parents because of poverty' (EM1). A situational analysis conducted on ICT education in Tanzania revealed that 'limited financing and affordability of tuition by students' were typical challenges to the adoption and use of ICT by the general public and this impacted negatively on market e-Readiness for E-Commerce. This lead SMEs to claim that there was no Government commitment to supporting SMEs with E-Commerce, specifically in the provision of ICT specific training and financial support.

The validity test for comprehensiveness of the policies show that SMEs' claims are truthful regarding the lack of government's commitment to ICT education, and that policies are not thorough in capturing ICT education issues. For example, the ICT policy has come under scrutiny from various nongovernmental stakeholders who point out that the policy is too narrow, addresses issues of training very lightly and lacks adequate conception on ICT training (Kabanda and Brown, 2010). Although the government has launched ICT education, there remains no training policy in place (EM3) and if issues of training get addressed, most are implemented by international organisations, leaving little local ownership and enthusiasm from locals. The policy fails to pay significant attention to institutional laws favouring electronic transactions that relate to the legalisation of digital signatures, cybercrime, protection of databases and copyright issues. Digital signatures are not admissible in court because the country's Evidence Act fails to provide for electronic signatures and the meaning of the signature does not include a signature in electronic form (EM9, 10). Without legalising computer-related evidence, international collaboration, stipulated by the ICT policy, with regard to E-Commerce remains uncertain. In addition, the validity test for comprehensiveness and clarity of the policies show policies are not 'sufficiently intelligible' for Tanzanians to comprehend as they are presented in English, a language that most people find difficult to understand in Tanzania (ICT policy page 7, 21).

Institutional e-readiness: Government commitment to support SMEs in ICT endeavours

Both institutional policies examined acknowledge the lack of financial support for SMEs and have pledged to provide the necessary support. For example, the government states in the ICT policy that it will 'encourage appropriate lending mechanisms that foster a dynamic climate for entrepreneurs to venture into ICT and related sectors' (page 13). In the SME policy, the government has stated its willingness to 'enhance financial reforms aimed at further liberalisation of the financial sector and the creation of financial intermediaries to cater for SMEs' (page 21). Although the government shows intention to facilitate ICT education and awareness, an interview with a government employee (GOV1) for the SME sector indicates otherwise:

> The ICT section is still not considered important because we don't get enough funds even though it's a government entity. What we get is just the salary and we are supposed to generate our own income to do our activities. This is a problem - the industry associates government with bureaucracy, corruption and late payment – they barely want to work with us.

The interview shows that government entities themselves that deal with ICTs are not prioritised and supported, thereby agreeing with SME claims that ICT endeavours are not supported.

Institutional e-readiness: Government resistance to ICT use

SMEs claimed that government were resistant towards ICT use. The findings did not show corroborating evidence of the truthfulness of this claim, but there were instances in the policy where the government acknowledges their lack of implementation plans for ICT usage as shown on Page 8:

> In the category of e-government, several departments are transforming their operations by deploying ICT. However, no mechanisms exist for ensuring that these major initiatives are coordinated or developed within a holistic strategic government plan.

The government's lack of mechanisms for ensuring that both e-government and e-governance solutions are coordinated or developed within a holistic strategic government plan; and the lack of a comprehensive and holistic e-government strategy for urgent implementation; is not an illustration of government's lack of actual use of ICTs in their business processes, specifically

with SMEs; but is a concern that warrants attention. There is an acknowledgement that e-government is being conducted with 'several departments' within government but no transactions are being conducted with external business entities such as SMEs.

Institutional e-readiness: Policies are not relevant and comprehensive for E-Commerce

SMEs claimed that E-Commerce was strongly hampered by the presence of irrelevant and incomprehensive policies which were also not accessible to most people. Through the ICT policy, the government acknowledges the absence of a conducive environment for the conduct of E-Commerce and states that one of its challenges is in 'enacting specific and effective legislative instruments on privacy, security, cybercrimes, ethical and moral conduct, encryption, digital signatures, copyrights, intellectual property rights and fair trade practices' (page 16). It acknowledges that 'only few local websites recently began offering limited e-business services. However these services are constrained by the lack of a national payment system, local credit cards, and a legislative framework appropriate for e-business' (page 8). These findings corroborate SMEs claims.

Industry support: Lack of industrial support

SMEs' claim that there is minimal support from the industry, specifically with regard to the ICT education of students who needed ICT training, internships and exposure. These claims are corroborated by the SME policy: 'SMEs have limited access to technology development partly because they lack the relevant information…the problem is further compounded by the existence of industrial support institutions which are weak and do operate in isolation without focusing on the actual requirements of the SME sector'. As a result of the lack of support from the industry, SMEs perceive a lack of ICT expertise and professionals in the industry to assist them in their venture to E-Commerce. SMEs' perceptions of a lack of ICT expertise were corroborated by the ICT policy:

> there is a shortage of well-qualified professionals of ICT in Tanzania. There are also no well-established ICT professional profiles, and a standardised process of evaluation or certification of the different courses offered by various training centres is lacking. Access to online and distance learning for ICT is also still limited (page 10).

The SMEs further claim that the physical and ICT infrastructure and industry were not e-ready for E-Commerce. This is acknowledged by the government (SME policy, page 16):

> The poor infrastructure in Tanzania including working premises, roads, cold rooms, warehouses, power, water and communication adversely the development of the SMEs. Even where these services are available, the supply is unreliable and costly.

The ICT policy (pages 13,19) indicates that government intends to address this problem. However, intention is not the same as action because 'actual implementation plans are not provided which can facilitate smooth operationalisation of programmes and projects with clear demarcation of levels of accountability' (SME policy, page 27). Based on these findings, SMEs' claims are confirmed.

Socio-cultural factors

A claim made by SMEs was that web-based E-Commerce was not compatible with the cultural conduct of business in Tanzania. An investigation in these claims against the ICT policy reveal that one of the challenges was in using the Kiswahili language for content creation (page 21) because while there are many Tanzanian websites, most of these are in English and are not updated regularly (page 7). An interview with a government employee (GOV1) corroborates these findings:

> ...once you try to explain the importance of the website to them [SMEs] and how they can use it, they find it useful...but language as a problem also kicks in. So what we will do is host their websites for some time with an emphasis on local large businesses such as Shoprite. Some of the SMEs have started doing that and selling to these large business.

The culture of bargaining was not reported in any of the policies and therefore could not be verified, but issues of corruption and a culture of mistrust was reported by government employee (GOV2):

> The culture doesn't support development - we need to do something about it...it's frustrating and if you try to change the system, they will say that guys is pretending to be British and besides, if you try to help like you call them into a meeting, they will all be looking for a khaki envelope for payment. If that workshop doesn't have an envelope, they won't come. How do you trust people like these – talk about online now?

DISCUSSION

The findings from the content analysis show that the ICT policy and SME policy had a very low frequency count related to terms associated with the SMEs' claims. The implication is that the message content of each of the policies did not favourably address the SME challenges. For example, there was a very low frequency count of claims regarding institutional and market e-Readiness. These findings are further confirmed by the truthfulness validity claims which show that the Tanzanian government finds the possibility of providing ICT education, ensuring E-Commerce and ICT awareness a challenge. The verification of these claims confirms that environmental factors have a detrimental effect on E-Commerce adoption, because government commitment is crucial, especially if 'the ICT policy is now the sole compass for all ICT activities in Tanzania' (Menda, 2010, http://www.tanzaniagateway.org), and should therefore ensure that matters pertinent to E-Commerce are addressed, such as training and creating a conducive legal environment through the development of policies that safeguard electronic transactions (Schware, 2005; Petrazzini & Kibati, 1999). This is important because of the claims that the ICT policy is not relevant and comprehensive enough for E-Commerce conduct; and that policies lacked clarity and relevance to SMEs who found it difficult to access and understand due to the fact that it was presented in a language they are not familiar with –thereby creating a barrier to many SME owners whose first and second language is not English (Mansell, 2001; Gattiker et al., 2000). Further, terms related to SMEs' claims regarding the lack of industry support received very low frequency counts in both policies. The truthfulness of this claim show that the government acknowledged the lack of financial institutions' readiness to support E-Commerce endeavours (ICT policy, page 8); and the lack of a conducive physical environment for E-Commerce (SME policy page 16). The findings show that a low frequency count for issues such as institutional e-Readiness, market e-Readiness, industry support and socio-cultural e-Readiness in the policies, and the confirmation of truthfulness and comprehension of the SME claims, is an indication that their perception of environmental factors that impede E-Commerce in Tanzania are valid. It is important however to acknowledge that that the policies used in this paper are from 2002 and 2003, and may not be fully reflective of current discourse.

CONCLUSION

The purpose of this study was to interrogate the validity of the claims made by SMEs regarding environmental factors that impede E-Commerce adoption and institutionalisation in Tanzania. The approach included content analysis of institutional policy documents to determine frequency of use of specific terms that either support or negate SMEs' claims; and an analysis of the validity (truthfulness and comprehensibility) of what SMEs stated with regard to their perception of environmental factors that affect E-Commerce. All SME claims regarding the lack of institutional e-Readiness for E-Commerce, market e-Readiness, industrial support and social cultural e-Readiness were interrogated against validity claims of truthfulness and comprehensibility.

The content analysis performed on the policies to determine frequency of use of specific SME claims showed that policies which should address the Tanzanian E-Commerce phenomenon were not appropriately tailored to facilitate its adoption and institutionalisation by SMEs. The focus of the communication in the policies was, therefore, not on the core factors that affect E-Commerce as perceived by SMEs since the total count for these factors was negligible in comparison with the total number of words in each policy. From this quantitative use of content analysis the deduction is that there is a poor attitudinal and behavioural response by government to issues of E-Commerce in Tanzania; and this response induces a negative psychological state of SMEs towards adoption and institutionalisation of E-Commerce. Although content analysis of institutional policies as a triangulation method against SME claims did not discern any underlying motives as to why E-Commerce was not given its deserved attention, it did show that there is a need for institutional reassessment of E-Commerce policies. The validity claim analysis did not reveal distorted communications made by SMEs, but it did corroborate the primary qualitative results. The content and validity claims' analysis in this study, therefore, were complementary methods that provided corroborating evidence of the primary qualitative results. The approach adopted here can be used to enhance theory when seeking confirmatory evidence of primary qualitative findings.

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