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Abstract

E-Commerce in least developing countries (LDCs) is believed to be non-existent because few businesses, especially Small and Medium Enterprises (SMEs) who are usually the vanguard of the LDCs economy, have adopted E-Commerce and even those that have, none have institutionalized the technology. Using structuration theory as a lens, this study attempts to provide an explanation as to what E-Commerce means to SMEs with the purpose of unraveling the underlying cause for the lack of E-Commerce institutionalization in LDC - Tanzania. Results indicate that SMEs use their social context to create symbolic interpretive schemes that facilitate their shared understanding of E-Commerce. This understanding was significantly influenced by social structures and resulted into new practices of doing business. They view E-Commerce as merely having a static web presence and the significant use of the mobile device. That is, E-Commerce did not necessary translate to the buying and selling of products online using their website. Websites were purely used for information purposes. They were unimpressed by the perceived benefits of institutionalizing E-Commerce because in their view, their new practices of using mobile communication and mobile payment systems mitigated against the need for institutionalization. This hybrid view of e-commerce being a mix of static website and mobile payment transactional capability is a unique perspective, which arises out of the LDC context.

Keywords

"E-Commerce Institutionalization is not for us": SMEs perception of E-Commerce in Tanzania

INTRODUCTION

Electronic Commerce (E-Commerce) is traditionally defined as the process of conducting business transaction (e.g. distribution, buying, selling and servicing) electronically over computer networks, primarily the Internet but also using corporate networks and extranets (Boateng et al, 2008). E-Commerce is spreading rapidly across the world and yet developing countries are still lagging behind despite its potential to contribute towards social development. Social development is key for developing countries and Least Developing Countries (LDCs) in particular because these states face more than other countries the risk of failing to come out of poverty (Kabanda and Brown, 2010). Very few LDCs have adopted E-Commerce and even those that have adopted, most remain on the business to consumer (B2C - goods and services) and teleservicing form of E-Commerce (UNCTD, 2001). In addition, very few have institutionalized E-Commerce into their organization. Institutionalization refers to organizations that have interactive, transactive or integrated E-Commerce capabilities (Molla and Licker, 2005). Most SMEs are still at the initial adoption phase of E-Commerce – that is, they are in the state of being connected (e.g., have email), or have static website. LDCs lag towards E-Commerce and specifically B2B is seen as a concern because B2B is regarded as the future of most E-Commerce activities as it has the potential to facilitate the integration of developing countries into the global economy. This is crucial for local businesses, especially for Small and Medium Enterprises (SMEs) who are the vanguard of the LDCs economy (Huff and Kelley, 2005). Through E-Commerce, SMEs can potentially have the chance to have unlimited access to both local and international new markets; have new improved, inexpensive and convenient operational methods of transacting because with E-Commerce business is not restricted to certain hours of operation as in traditional means of transactions (Dholakia and Kshetri, 2004).

Yet research on E-Commerce in LDCs and in Tanzania in particular tends to overlook SMEs' perspective, paying more attention to the technical infrastructure and telecommunication sector. The E-Commerce infrastructure which involves the underlying foundation of networks, hardware, software, skills, processes, and resources that must exist before an organization can build E-Commerce applications and carry out an E-Commerce strategy is regarded as inadequate (Jennex et al, 2004); and the telecommunication sector that should be ensuring private sector's ability to afford and access connectivity is unreliable (Press, 1998; OTF Group, 2005; Beilocka and Dimitrova, 2003). It is believed that once LDCs telecommunication sectors are liberalized it can result into increased competition necessary for the reduction of the high prices of the international leased lines, elimination of barriers to entry to encourage foreign investors whilst providing technical expertise and human resources necessary to support the growth of the industry (Wilson and Wong, 2003; Petrazzini and Kibati, 1999). On the consumer side, Molla and Heeks (2007) indicate that availability of financial resources especially the financial state of consumers and the country at large in terms of their GDP, are a key determinant of E-Commerce

diffusion rates across countries. Unfortunately LDC consumers lack the financial means to engage in E-Commerce activities. Although these challenges facing SMEs have been highlighted, few have attempted to investigate how E-Commerce is conceptualized from an SME perspective and how SME social practices are formed regarding E-Commerce. This is because researchers in LDCs tend to use survey-based approaches that provide "limited rich explanations of how and why" SMEs adopt or fail to adopt a particular technology (Alemayehu Molla et al, 2006). They fail to note that the overall success of a given technology, E-Commerce in this instance, will have to include an understanding and appreciation of the social interactions with the structures involved in the E-Commerce initiative. This study, aims to investigate how E-Commerce is conceptualized by SMEs and how SME social practices are formed regarding E-Commerce. In so doing, we hope to shed some light on why SMEs have not institutionalized E-Commerce. As such the focus of this study is on SMEs understanding of E-Commerce – the socially constructed meanings of E-Commerce. We believe the understanding which SMEs attach to E-Commerce results in their behavior – of not institutionalizing. As a guiding lens, we adopt structuration theory to explore the guiding structures within which the meanings are formed, and the process of this meaning formation which leads to various behaviors and understanding (Alvarez, 2002). The theory was chosen because it encompasses the whole arena of human action and interaction thereby making it possible to explore the social construction of meaning (Karsten, 1995).

The rest of the paper is structured as follows: the next section describes structuration theory in detail. The research methodology follows next and after that is the data analysis and result. The discussion of the results is presented next and then the conclusion of the paper last.

STRUCTURATION THEORY

Structuration theory is a theory of social action, which claims that society should be understood in terms of action and structure; and as a duality rather than two separate entities (Giddens, 1984). The theory allows for the study of social phenomena via three structural dimensions - signification, domination and legitimation as shown in Figure 1.
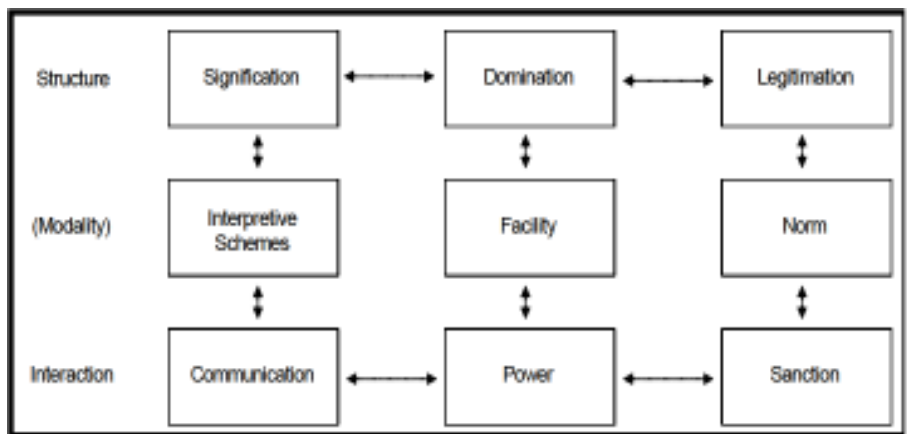

Figure 1. The dimensions of duality of structure (Giddens, 1984)

The dimensions are linked with corresponding interactive dimensions of communication, power and sanctions through the modalities of interpretive schemes, facilities and norms respectively. The modalities represent the locus of interaction between knowledgeable social actors on one

hand and the structural dimensions of social systems (Giddens, 1984). The three dimensions are only separable analytically but their intertwining can be "used to enrich the picture of meaning construction—or construction of interpretive schemes—by interrelating the analyses of meaning, power and norms" (Karsten, 1995).

Structures of signification

Structures of signification inform our understanding of a given phenomenon through interpretive schemes (Giddens, 1984). They describe the shared understanding of a given phenomenon by a group of people and are communicated via interpretive schemes or stocks of knowledge that serve as cognitive guides for individual action and behaviour (Rai et al, 2009; Wu and Kersten, 2008; Chu and Smithson; 2003; Sydow and Windeler, 1998; Scheepers and Damsgaard, 1997; Willmott, 1981). Once institutionalized, structures of signification become the common and agreed rules of what constitutes meaning and actors use them to rationalize their actions. According to Chu and Smithson (2003), an organization's properties (behavior and patterns) represent structures of signification (meaning). These properties are driven by the organization's strategies, vision and goals as articulated by top management (Huff and Kelley 2005, Kao and Decou 2003). Through its strategy, the organization crafts patterns of activities which have an impact on the achievement of the organizational goals in relation to its environment (Hakansson and Snehota 2006). The patterns of activities consist of shared knowledge and organizing rules that guide social interaction and behaviour on the way business operations are conducted (Yuthas et al 2004). They become reinforced or changed through social interaction and environmental constraints or opportunities, as the organizational rules are reaffirmed or challenged through their use by human agents (Orlikowiski 1992).

Structures of domination

Structures of domination are provided by structures that enforce established institutional rules to regulate actions and behaviours of individuals (Rai et al, 2009; Chu and Smithson, 2003). Agents implement structures of domination by using available resources at their disposable. The resources are structured properties of social systems, drawn on and reproduced by knowledgeable individuals during their series of interaction. They are of two kinds: the authoritative resources, derived from the co-ordination of the activity of human agents; and allocative resources, derived from control of material products or aspects of the natural world such as finances (Giddens, 1984). These resources become the basis for acquiring individual power and once legitimized, contribute to structures of domination (Crowston et al, 2001; Willmott, 1981). Power involves the exploitation of resources present in the context, giving agents the collective capacity to act in order to facilitate the realization of specific social goals or objectives (Rose 1998, Xavier 1996). The realization of such goals, according to Yuthas et al. (2004) results in the manifestation of power by agents controlling the resources (both allocative and authoritative).

Structures of legitimation

Structures of legitimization are established by organizational conventions that validate whether certain behaviors are desirable and congruent with the goals and values of the organization or not (Rai et al, 2009). These structures are communicated through norms which provide the concrete means agents use in a situated action context and characterize how agents make use of rules and resources therein (Sydow and Windeler, 1998). Norms are defined as techniques or generalizable procedures applied in the enactment/reproduction of social practices (Jones and Karsten, 2008). They tend to constrain behaviour within acceptable limits and emerge from patterns of recurrent interaction between human agents based on personal notions of what is sanctioned (Pozzebon and Pinsonneault, 2001). Norms, define appropriate procedures and protocols which are articulated and sustained through rituals, socialization practices, and tradition; and of which if not adhered to, may invoke sanctions (Jones and Karsten 2008). These procedures and protocols, evolve over time, and are created, reinforced, changed, and dismantled by human action (Chu and Smithson 2003).

RESEARCH METHODOLOGY

The study is explorative in nature and interpretive. An interpretive approach focuses on the participants' everyday work practices with the purpose of giving the researcher the sense making process of how specific conceptions, and social practices lead to various behaviour (Alvarez, 2002), for example the lack of E-Commerce institutionalization. As such, contextual discourse (such as processes of social, cultural and historical practices) becomes more important and not merely the technology (Wilson and Wong, 2003).

In this study, the corpus of data used for empirical analysis was derived from the semi-structured interviews designed to elicit open ended descriptions about E-Commerce understanding from SMEs in Dar-es-Salaam, Tanzania. This study adopts the definition of SMEs as postulated by the SMEs Development Policy of Tanzania using the size criterion, depending only on employment. The policy classifies SMEs as comprising of 5-49 employees and 50-99 employees respectively. Dar-es-Salaam was selected as it is the center of commercial activity, and hence E-Commerce would be a familiar term. The semi structured interviews were derived from literature (Rai et al. 2009; Sarasona et al. 2006; Huff and Kelly, 2005; Chatterjee et al. 2002; Crowston et al, 2001; Sydow and Windeler, 1998).

Targeted participants included SME owners, managers and IT executives as they are most familiar with E-commerce in their firms and environment. Audio recording and note taking during interviews served as data collecting tools for examining the situated production of social action. SMEs from 10 industries were targeted as shown in Table 1 and Table 2. Initially 38 SMEs were contacted for an interview. Two companies were not included in the data analysis because although they agreed to partake in the interview, they did not provide sufficient information to warrant inclusion in the analysis. The remaining SMEs were categorized in two: Category 1 depicted in Table 1 included SMEs that had adopted E-Commerce (initial adoption: with a website and email communication). These were 25. However, there were two cases in which two people from different companies were interviewed, thereby bringing the total interviews to 27. Many of the SMEs in this category were in the Communication Electronics & Computer industry (13 SMEs); followed by the tourism sector (5 SMEs). 37% of the SMEs were only targeting the local customer and the rest targeted both international and local. 47% of those who targeted the international market specifically targeted the East African market (Kenya,

Uganda, Rwanda, and Burundi). 56% of the SMEs had their websites hosted abroad. Although many were reluctant to indicate which country their website was hosted in, the occasional responses were India, Germany and Dubai.

Industry	SME #	Consumer Target (local/international)	sites hosted locally/elsewhere
Communication Electronics & Computer	1 -13	SME1,2,6,9,10,11,13: Local SME3,4,5,7,8,12: Both (specifically East Africa)	SME 1,6,8,9,12,13: Locally SME 2,3,4,5,7,10,11: Abroad (Dubai, Germany, India)
Service provider (ISP)	14	Local	Locally
Loans & Finance	15	Local	Locally
Safety &Protection	16	Local	Locally
Tourism & Entertainment	17 - 21	Both	Abroad
Arts, Craft and Curios	22	Both	Abroad - India
Agriculture forestry, fishing & Manufacturing	23-24	Both (specifically East Africa)	Abroad
	25	Both	Locally

Table 1. SME that have adopted E-Commerce (initial adoption).

Category 2, depicted in Table 2 consisted of SMEs that had not adopted E-Commerce but had some ICT presence such as email communication. These constituted a further 11 interviews as depicted in Table 2. Only three of these SMEs had email communication for business purposes and even they indicated that despite having email, their most used mode of communication was the mobile. The rest of the SMEs (8) indicated that although they have an email, it was used for personal communication such as checking on friends. Their entire businesses activities were conducted using the mobile. The industry that solely relied on the mobile was Insurance, followed by transportation.

Industry	SME #	Have a website	Target (local/international)
Communication Electronics & Computer industry	26 - 28	No. Rely on Mobile & e-mail	Local
Transportation	29-30	No. Have email but rely on Mobile	Both
Insurance	31-36	No. Have email but rely on Mobile	Local

Table 2. SMEs that have email communication

To further understand the socio-cultural background, in which SMEs operate, we supplemented interview data with the Tanzanian ICT policy, telecommunication policies and Small and Medium Enterprise policy. In addition, other sectors from the institutional environment and supporting industries were interviewed. These include the banking sector, government and education sector.

DATA ANALYSIS AND RESULTS

The interview scripts, treated as social texts were analyzed using structuration theory as a lens. The following section discusses the results. It is interestingly to note that most SMEs when discussing E-Commerce, they did so with respect to the challenges that they experienced.

Structures of Signification

Results indicate that all SMEs, including those that did not have websites (in Table 2) were aware of the benefits of E-Commerce and how owning a website reflected sophistication and *being up-to-date with the trends* (SME6). When asked whether they had a transactive website, most responded in the affirmative. However it was clear that their understanding of E-Commerce did not traverse to the institutionalization phase - having interactive, transactive or integrated E-Commerce capabilities. This was reflected by several SMEs. SME 7 explains: *we haven't sold anything through our website....have to be honest, it's just for information purposes*. When they were notified of the different levels of E-Commerce (static, interactive, transactive and integrative) most SMEs indicated that they would not be interested in institutionalizing because there was lack of customer readiness (SME14,11,15,17,22,24). This was elaborated on by SME11: *customers are not yet ready - they are not prepared for it, they don't know about it and don't have the skills of taking advantage of Internet services. One reason is because technology moves at a very fast pace and [Tanzanians] are catching up at a snail pace*. Although SMEs perceived E-Commerce as a technology that reflected sophistication, they failed to associate E-Commerce with the institutionalization phase because of consumer's lack of readiness in adopting the technology. E-Commerce institutionalization was highly related to business partners such as customers and suppliers readiness to allow for electronic conduct of business.

Although they have not institutionalized E-Commerce, they strongly indicated that they see no need to because according to SME12: *transactive or fully integrated web-based E-commerce ... won't work here because we are already doing E-Commerce using MPESA, so why invest heavily in institutionalizing [web-based] E-Commerce when I am [al]ready benefiting from it. We have just started with mobile activities such as payments, e-money transfer...now that is e-commerce actually...we got MPESA and Z-PESA going on*. MPESA and ZPESA are mobile-phone based money transfer services designed to enable users to complete basic banking transactions without the need to visit a bank branch. All SMEs used the mobile device, and were willing to provide the necessary investment into mobile communications for their employees, such as giving them airtime credits for their personal phones to enable marketing of the business (SME10,26,27,28,31,32); and giving them access to Internet quota on their mobile phone (SME 7). SME30 indicated that *with the advent of the cell phone, we are able to retain and keep in contact with our existing customers than before. Our regular customers simply pay via MPESA these days when they are broke some days"* Similar statements were made by SME4,15,16. It was evident that management articulated and reinforced their understanding of E-Commerce on employees by providing them with the necessary mobile phone resources (such as airtime credits) and chose to downplay institutionalizing E-Commerce. They perceived E-Commerce as being a hybrid made up of a static website, which provides minimal benefit and mobile-based payment (an e-money transaction system), such as the M-PESA system.

SME understanding of E-Commerce was also strongly tied with government's involvement in both adoption and usage. SMEs in the Communication Electronics and Computer industry felt that the government was more resistant to technological changes in the deployment and use of

ICTs than individual consumers. SMEs7,11, and 12 who had a sophisticated technology infrastructure, indicated that they have not and would still not institutionalize E-Commerce because of government's lack of involvement with Internet related transactions. SME11 clarifies: *the biggest consumer of ICTs here is still government and not the individual or other businesses. The government themselves don't engage in online transactions even though they encourage us to. Even credit card payment is a problem. So how can you expect me to institutionalize E-Commerce, who will be my loyal customer if it's not the government?* Part of the reason as to why government was reluctant to change, according to SMEs in the ICT sector, was because of their lack of technology understanding. SME2 indicated that this was quite evident in how they crafted the ICT Policy. He indicated that the policy had terms such as computers and peripherals which were not only confusing to the public but also to the government officials themselves. For example, *those in government if you come with the CPU to the tax officials - they think that a computer is the monitor! .* According to SME11 *most technical people in the government have no idea of what is going on. My opinion on that policy (laughs) - i think its a joke. Security has not been addressed at all in that policy. The government people themselves don't even know what is in there – sure (laughs) that policy is a toy, there is nothing there.* It was evident that SMEs perception of E-Commerce, and specifically to institutionalization was linked to not only the government's preparation of the nation state and its various institutions to promote, support, facilitate and regulate E-Commerce but also to the actual usage of E-Commerce.

Structures of domination

Structures of domination define the way in which control over resources is available to actors, and by the way in which they use facilities to mobilize available resources, both allocative and authoritative. In this study, SMEs perceived the mobile device as a valuable resource to have, and "*airtime credits*" as a necessity for the conduct of their business. Managers could therefore determine how much of this resource they could give to employees. By possessing mobile devices and having "*airtime credits*" SMEs acquired allocative resources which they could leverage as compared to the website. A website required them to acquire ICT expertise among other prerequisites of institutionalizing E-Commerce. SMEs did not have these resources. For example, SMEs in Table 1 indicated that although they had the necessary capabilities to develop a website (except SME9 and SME13), they noted that software specific skills were difficult to acquire and even if acquired, difficult to retain. All SMEs (Table 1 and 2) indicated that they did not have software skills in their organizations but relied on external support when necessary. Important distinction was made between software and technical/networking skills. It was noted that the technical/networking skills were ample in the market as compared to software specific skills because *acquiring software skills was expensive and developing software is not an easy task, you have to be patient and be fine with it otherwise its like you are sacrificing everything to that career...its demanding and many TZs [Tanzanian] are not interested* (SME7). As a result, most SMEs, specifically those in Table 1 relied on foreign partners, to develop and host their website. SME19 lamented indicating that *we need a great website for our tourism site; the problem is we can't trust the market to provide us with the right person who has the right technological skills to do the job. So what we do is outsource outside the country.* Consistent to both groups of SMEs in Table1 and 2 was the fact that the lack of ICT expertise is partly caused by the lack of commitment of educational institutions in producing graduates that are competent and have ethical behavior. This, according to SME14 was because *the University curriculum doesn't address the industry needs.* There was strong insinuation of a lack of collaboration

between educational institutions and the industry, especially SMEs and this unfortunately according to SME18 led to graduates *who are very inexperienced, unskilled with practical issues and need a lot of help.*

Another reason for lack of ICT expertise was a lack of supporting software engineering industries which can provide graduates with the necessary *grooming*, experience and exposure to software development and the potential of having a career in this field (SME12). SME10 stated how the software industry is *still immature and as a result, people are scared to be in the ICT industry or become ICT experts because there isn't a market for that yet. We don't have many companies for programmers – for software development, so what you will find is that everyone wants to become a network administrator-that is what is paying these days.* There was continuous agreement that the high illiteracy rate amongst large business owners was a contributing factor to the absence of supporting industries. This was clearly illustrated by the government representative who indicated that *unfortunately most of the people with money did not go to school. Some of them became rich through land – a hot cake right now...they use land as the collateral with the bank to start their huge projects.* As a result of a lack of human expertise resources, SMEs had to supplement graduates knowledge by allowing them to attend certification courses perceived to be very expensive. SME21 elaborates: *it becomes difficult to send them for training using the business resources because as stated before, ICT training is expensive compared to other courses.* Apart from supplementing students with further ICT training, a continuous grumble amongst all SMEs was that students were not *brushed and polished* in such a way that *when they come from university they know the principle business ethics* (SME 1). Business ethics was strongly emphasized as the core reason behind not trusting graduates and employees because according to SME12 *you send the intern to a client. The intern will tell the client that he can do the job at a cheaper rate than you the employer, if he [client] is able to provide **something**. They are corrupt before becoming gurus in the business (shakes his head in disappointment).* According to SME1,10,12, and 21, educational institutions fail to instill into students a culture of integrity and a continuous learning culture that will make graduates keep pace with technological changes.

However, this is not to say that lack of ICT expertise and supporting software engineering industries alone were the inhibiting factor to E-Commerce institutionalization. SMEs strongly indicated that the government possessed both allocative and authoritative resources because they are the biggest single buyer and employer in the country of ICT services; and ideally should be more engaged in the procurement, and delivering services. However government's failure to partake in online related transactions contributes to SMEs failure to institutionalize E-Commerce. Common sentiments amongst SMEs were that the power they have to institutionalize E-Commerce is to some extent dependent upon the power the government has in the extent of how far they have institutionalized E-Commerce. By failing to adopt E-Commerce and let alone institutionalize it, the government unconsciously and recursively creates structures of domination by the power they possess as the biggest single buyer and employer in the country of ICT services.

Structures of Legitimation

Structures of legitimation are brought upon by rules relating to social conduct, which when interpreted and verbalized by actors become institutionalized. In this study, the rules relating to

SMEs social conduct and the wider context at large is that all transactions are done on a cash base system and follow a traditional face to face bargaining system. Cash based system was seen as important because trust is simply not there. SME22 explains: *we don't have proper addresses here, so how are you going to find the guy?* Similar sentiments were echoed by the banking sector. The bargaining system, which, according to SME28, *we hold dearly to heart* was consistently mentioned as crucial before making a purchase (SME16,22,25,29,31) and its importance was elaborated by SME22 who indicated that bargaining consisted of three vital processes: *firstly chatting with client about other issues sometimes not pertaining to the products which results in bonding with the client so as to build trust; secondly the inspection of the product to find areas you can use to bargain with; and finally lowering of the price*. As such, E-Commerce institutionalization was not seen to be compatible to SMEs mode of operations and therefore did not form part of their strategic venture (SME 11,16,29,31), *it's not the way to go* (SME22) and *not my cup of tea right now* (SME 18). The use of the mobile device for their business transaction has changed the need to institutionalize E-Commerce because the technology has removed most obstacle they traditionally faced with the E-Commerce infrastructure and the human resource factor necessary to implement E-Commerce. By deploying the mobile devices, SMEs also unconsciously created new rules and practices in the organization.

Further, SMEs and the educational sector indicated that although there are no written down rules regarding how people buy, most consumers tend to either buy foreign products at the expense of local products; or buy refurbished and second hand goods which had become more popular compared to new innovative products, especially in the ICT industry. The educational institute representative indicated in a complaining tone that *the tendency of many companies and specifically the government is that they look outside for software. They don't buy our own local software. THEY ARE JUST NOT INTERESTED – they deal with people like Oracle, Microsoft, InfoSys, SAP. So how do you expect the industry to grow? I think the reason as to why they do this is because they were used to and there is a perception that foreign is more supreme - thats the way it has always been done.*   SMEs criticized how substandard, grey, low quality products and products that have been illegally imported, and eventually sold at a very low price have polluted the market, and that these goods are *brought in and passed as the original or sometimes brand new at a very low price. Now to compete with such people is tough if you are selling the original to a market of people who are not very ICT literate* (SME4). SMEs in the Arts, craft and manufacturing indicated *that people are so used to second hand Mitumba that buying a new product, like an African print shirt online would be strange* (SME22). Mitumba refers to used clothes in Tanzania that are imported from Europe by charitable organizations and churches to the poor or needy in Africa. Some SMEs blamed the government also for encouraging this behavior by investing in poor and low quality products. SME16 stated that, *if you rely on quality you lose out because government tender are offered on a low price base and not quality. The society and our customers have a culture of purchasing low quality products because government itself buys cheap low quality products and now the public itself has developed that tendency*. These sentiments were echoed by an Internet Service provider company (SME14) who indicated that this does not only affect the ICT industry, it affects every sectors of government and also bred corruption. Three SMEs (two from Communication Electronics & Computer industry; and one from Transportation) indicated that they continuously faced corruption from consumers, the government, as well as the employees to an extent that, *instead of paying*

attention to learn and invest in ICTs, we spend most of the time investing in how to avoid corruption in the tendering process (SME27).

DISCUSSION

The primary aim of this paper was to investigate how E-Commerce is conceptualized by SMEs and how SME social practices are formed regarding E-Commerce. In so doing, the structuration theory was adopted to explore the guiding structures within which the meanings are formed, and the process of this meaning formation which leads to various behaviors and understanding. This section discusses the results of this study in perspective of these structures and themes from analysis.

The results indicate that although some SMEs had a website, most changed their practice deliberately by adopting the mobile device. This is because according to Giddens (1993), users have the option, at any moment and within existing conditions and materials, to ''choose to do otherwise'' with the technology at hand. The mobile device in this instance had become the "sign" or language associated with business and all electronic transactions because it recursively linked the SME to the wider, changing social world. It provided a means of responding to the unexpected challenges they faced in the institutional environment such as the lack of government usage of E-Commerce and electronic transactions in general, and the lack of consumer and business partner e-readiness for E-Commerce. Mobile devices therefore can be seen as constituting to structures of signification since signification is about the 'signs' which could include the language, clothes or any other 'tool' used during an interactions for communication purposes (Callahan, 2004). Whilst the intended consequences of using the mobile device by SMEs have been an improvement in their economic efficiency in business operations due to the subsequent free flows of business information; the unintended consequence has been the downplay or the total lack of website usage. By adopting mobile devices and downplaying the use of websites, SME management presents the enthusiasm and a strategy for mobile communication which they communicate to employees and subsequently recreating structures of signification (Huff and Kelley, 2005; Kao and Decao, 2003; Gee and Green, 1998).

Whilst SMEs enacted new technology practices, of using the mobile device and discarding their static websites and email communication, they also changed their norms or ways of operation and the resource dynamics. The mobile device gave them the power to conduct their buying and selling activities without being constrained by the inadequacy of the website and the E-Commerce infrastructure issues. By acquiring this resource (the mobile device) SMEs had the power to change their current practices. They therefore, according to Giddens (1984), were able to execute power by applying facilities (mobile device and air time credits) they have access to contextually to transform interaction sequences. For example, prior to mobile devices, SMEs simply used their static website, word of mouth, fax and occasionally email for communicative purposes. Communication most of the time necessitated a face-to-face meeting, specifically for SMEs with no access to email. All business transactions were restricted to the office since "*that was where all the resources such as my computer and the land line were situated*" (SME26). However, by adopting mobile devices, employees were able to perform their business work at any location, whether in office or not, and face-to-face meetings were not necessary. This new practice of operation resulted into new norms and creation for the need for new resources such as providing employees with airtime credits for their personal phones to enable marketing and other

activities of the business. This led to new policies on how much airtime credit could be given to employees and how it could be used. However, employees were touchy about this policy. An employee from SME 31 explains: "*the amount is usually very small. You see it all depends at what time you call a customer and from which network the customer is at. Vodcom to Vodacom is ok, but when I am Vodacom and the customer is Zain or any other network, it's expensive! Management doesn't look at this when they give us our quota*". Unfortunately, he explains that employees who finished their quota, before lunchtime were labeled as "*bad managers*". It was evident that SME owners/ managers possessed allocative resources as they could determine how much to give to a particular employee. To avoid sanctions (not be seen as a "bad manager"), some employees used their personal airtime quota for organizational work.

The mobile devices also tied in well with their business practices of cash based economy. For example, with a website, SMEs would require a credit card system which they are unfamiliar with and which has also not penetrated the economy (The United Republic of Tanzania Ministry Of Communications And Transport, 2002; Lwiza and Nwankwo, 2002). However, with the mobile device, SMEs were able to mitigate the barriers of a credit card system and able to perform their regular transactions using their mobile phone based money transfer services such as M-PESA. Via an M-PESA account, SMEs and business partners can now use mobile phone to move money quickly, securely, and across great distances, directly to another mobile phone user (Hughes and Lonie, 2007). Thus although this mode of transaction did not necessary provide for the face-to-face interaction required for bargaining, it made possible instant payment and communication thereby eliminating issues of mistrusts.

With respect to institutionalizing E-Commerce, SME owners, indicated their lack of human resources specifically ICT expertise resulted in their lack of confidence to institutionalize E-Commerce. ICT expertise, according to SMEs was a resource that couldn't be ignored when deciding to adopt and institutionalize E-Commerce and unfortunately they did not possess this resource. According to Giddens (1984), resources are the media through which power is exercised and the structures of domination reproduced. Yet SMEs lacked human resource and this factor incapacitated their position to exercise the power of institutionalizing E-Commerce. This power was further hampered by the institutional context in which people disregarded local products and purchased low refurbished or used products such as the Mitumba (used products) which are provided by the non-profit organizations in western societies to the poor and needy in Africa. According to SMEs in the arts and manufacturing industry, this reliance on Mitumba has created an attitude of *I can get it cheaper anyway at the Mitumba*, and subsequently a culture of not buying quality or brand new products (SME25). SMEs in the Communication Electronics and Computer industry concurred and indicated that consumer's preference of refurbished and used products continues to hamper the ICT industry. These social practices unfortunately retard the growth of the local textile industry and people do not see the necessity of buying clothes from local manufacturers (Kinabo, 2004).

CONCLUSION

E-Commerce studies in least developing countries have tended to shun away from providing an explanation as to what E-Commerce means to LDC SMEs and to what extent E-Commerce is taken as a crucial element in their strategies. The latter are important and resourceful considerations, which a government can then use for both planning and resource mobilization

purposes. This study contributes to this understanding by investigating how E-Commerce is conceptualized by SMEs in a least developing country, Tanzania. SMEs understand E-Commerce as merely having a web presence, but not necessary being able to do typical E-Commerce transaction such as buying and selling online. Most SMEs have developed a familiar pattern of using their mobile devices for business – and ultimately enacting a particular and typically shared technology-in-practice.

This understanding was significantly influenced by social and environmental structures and to a lesser extent organizational and innovation structures. Although these structures places constrain on SMEs, they have devised effective mechanism to react towards this stimuli. Their reaction has widely been in the form of mobile communication which has made it possible for SMEs to transact effectively amongst themselves and with their clients. Mobile communication and mobile payment systems mitigated against the need for E-Commerce institutionalization in their view. This hybrid view of e-commerce being a mix of static website and mobile payment transactional capability is a unique perspective, which arises out of the LDC context. With these findings, there needs to be more in depth understanding of how to best assist SMEs utilize their mobiles for effective business transactions. Future research can build on these findings to identify potential opportunities to integrate these apparently disparate elements of E-Commerce. In addition, there needs to be supporting industries that provide support for graduates such as a professional body where graduates can learn and experience most of the practical aspects. Government needs to clarify the policies and provide training of government officials in the ICT related posts of public services. Finally, education institutions need to be more engaged with SMEs to identify their needs and potential research niches that would solve their contextual problems

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