An Evaluation of the Importance of E-commerce Adoption to the Growth of SMEs in Zimbabwe

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Abstract

This study evaluates the importance of e-commerce adoption to the growth of Small and Medium Enterprises (SMEs) as well as the dynamics that motivate e-commerce adoption by SMEs in Developing countries using evidence from Zimbabwe. The study facilitates the development of strategies and initiatives aimed at scaling up the adoption of e-commerce among SMEs in developing countries. It adopted a qualitative research methodology that made use of explanatory research. A sample of 15 participants was purposively selected for the in-depth interviews with participants from the furniture and metal fabrication sectors. The study contributes to the existing body of knowledge about the significance of e-commerce adoption and its use in SME growth in developing countries. The Zimbabwean case represents the challenges that affect most developing countries which suffer economic stability and have inadequate IT infrastructure. The study found that ecommerce adoption is inhibited by technological factors like ICT Infrastructure, Technology Competence and Technology Affordability. It also shows that all other organisational factors (i.e. Organisational Awareness, Customer Orientation and Organisational Resistance to change) inhibit adoption except for management support. At the environmental level, Suppliers / partners expectations and Government support enable while customer expectations and competitive pressure enable it.

Keywords
E-commerce, SMEs growth, Adoption, Zimbabwe, Technological, Organisational, Environmental

1. Introduction
Garg and Choeu (2015) refer to Electronic Commerce (e-commerce) as a nascent trigger of economic growth within developing nations. E-commerce is a major innovation, which has benefited industries across the globe even the Small and Medium Industries (SMEs)(Schaper 2002; Essays UK, 2018). A number of challenges have plagued the adoption of e-commerce by SMEs globally (Ahmed, 2018). The SMEs sector is dominated by business actors that lack management skills, experience and the capacity to experiment with new technologies that big businesses exploit. Garg and Choeu (2015) attribute the difficulties partly to the ever-shifting domain of information systems and the changing demands of national and international business in general.

SMEs play a significant role in the growth of both industrialised and developing countries. This is because they create employment and they foster rapid economic growth (Mazikana, 2019). SMEs are ideal for start ups that have no access to huge capital outlays. As a result, governments and scholars across they north-south divide have realised their importance (Schaper 2002; Kruja, 2013; Akugri, M, S., Bagah, D. A., and Wulifan, J. K. (2015). They are therefore compelled to craft policies that enhance the growth of SMEs. While governments are begining to appreciate the need to support SMEs, there is a dearth of legislative support to foster their growth. This is especially the case in developing countries where the e-business front is still in its infancy.

The challenges that SMEs in developing countries face in their quest to adopt e-commerce seem to be an obvious problem that emanates from the technological front. By simply scratching below that the surface, I.e. where entry point challenges obtain, we encounter a myriad of environmental and organisational imperatives that require a deeper analysis. We must on the onset warn that e-business and e-commerce is not solely dependent on technology. After all, information systems research has already warned about the folly of technological determinism (Avgerou, 2010). Technological determinism is the mistaken notion that technology on its own can foster social change (Dusek, 2007).

This therefore compel this study to look beyond the technological realm for other factors that may contribute to the challenges that inhibit the adoption of e-commerce in developing countries.

There is evidence that compels us to investigate the importance of organisational imperatives to the successful use and adoption of e-commerce by SMEs in developing countries. For instance, the understanding that e-commerce requires a difference approach to business management and structure from the conventional brick and mortar business encourages us to analyse the organisational realm with a laser focus (Friedman, 2007; Bhaskar, 2017). We hypothesise that the organisational characteristic of companies in developing countries are unlikely to be found wanting. For instance, customer orientation, propensity to explore opportunities for change and awareness for the usefulness of e-commerce are organisational factors that require investigation.

We are also compelled to analyse the role of environmental imperatives because we appreciate that SMEs are affected by the business environment in which they are embedded. They are also affected by legislative environment, that is, the customer and supplier expectation as well as the pressure that SMEs face from their competitors in the large business enterprise sector. If the enabling legislation was to be in place, would this transform the profitability of SMEs? What impact would this have on ICT enabled job creation and economic development? These are key questions that fuel our search for answers and motivate us to add our voice to the growing body of knowledge on information systems research on the adoption of e-commerce by SMEs e-commerce adoption among SMEs continues (Garg and Choeu, 2015; Parker and Castleman, 2009; MacGregor, 2004).

Since e-commerce adoption has already been proved to usher advantages in other spheres, this paper attempts to investigate and gain a deeper understanding of the factors that enable the adoption of e-commerce its usefulness to the growth of SMEs in developing countries. The research uses evidence from Zimbabwe. Zimbabwe is a landlocked Southern Africa country which has one of Africa's highest literacy levels. It has a growing SMEs sector which has absorbed the labour from the declining formal sector in the wake of economic degradation. Its high mobile penetration at 87.8% and a phenomenal use of e-money (mobile money and electronic cards) presents a fertile ground for e-commerce adoption. This, however, is not the case, hence the necessity to investigate why? Given the uncontested role of e-commerce in fostering business growth, why are Zimbabwean SMEs not harnessing it?

1.1 Objectives

The objective of this study is to investigate what it takes for Zimbabwean SMEs to adopt e-commerce for fostering the growth. This objective is met by answering a research question which says: What factors influence the adoption of e-commerce by SME in Zimbabwe?

2. Literature Review (12 font)

This section presents a review of literature on e-commerce adoption by SMEs. It covers the concepts of e-Commerce, SME growth, adoption of e-commerce in Developing Countries, e-commerce adoption and SME growth and it ends by discussing the drivers of EC adoption

2.1 Concept of e-commerce

While there are many definitions of electronic commerce in burgeoning literature, (Garg and Choeu, 2015), this paper defines it as the use of internet platforms and other networks for the purchasing, selling, transporting and trading data as well as good and services (Plunkett, 2014). This definition is adopted for its depth in comparison to overly broad definitions like Fletcher, Bell, & McNaughton, (2004) who present it as '*the application of ICTs to processes within the firm, and possibly to transactions with customers and suppliers*.' Equaly as broad and inadequeately revealing is Botha et al., (2004) who simply suggest that e-commerce is the online interaction between business and its suppliers and customers for order placement.

According to Turban et. al. (2018), e-commerce can either be pure or partial. Pure e-commerce is a situation where the entirely transaction process is conducted electronically. That is from transaction initiation to transaction fulfillment. This is different from partial e-commerce which represents a situation where some aspects of the transaction will be conducted offline. The SME sector in developing countries is unlikely to conduct pure e-commerce given the limitation they face with the environment in which they conduct their business. There may be exceptional

situation where the product being sold is capable of being transmitted through electronic means like music, movies or e-books.

The usefulness of e-commerce in the growth of SMEs is that it makes it possible for firms of all sizes to enhance their competitiveness irrespective of the the sectors they belong to. This, therefore, comes out as an equalising force which allows SMEs to compete with large enterprises. This is done through its ability to penetrate new markets by transcending time zones, crossing geographical barriers and overcoming cost barriers. E-commerce, therefore, allows SMEs to enter new markets and to compete globally. There are, however, some limitations that constrain the ability of SMEs to compete with large enterprises. This includes organisational characteristics like ICT skills, management capacity, management awareness and support. There are also some technological limitations that emanate from a firm's ability to afford access, infrastructure and competence associated with hiring qualified staff. Also critical, are the orgnisational imperatives that were articulated in the previous section (Kapurubandara (2009).

2.2 Concept of SME growth

The concern for business growth has become critical to many businesses globally. Numerous definitions of small to medium enterprises (SMEs) have been posited by different authors. They have been categorised by number of employees, assert level and other qualitative measures. I must be argued that the definition SMEs must include quantitative measures of staffing, turnover, asserts, financial and non financial yard sticks like business structure (Akugri, Bagah, and Wulifan, 2015).

On the other hand, SME growth denotes to a phase under which a business gets to the position for expansion and looks for other routes to make additional profit. Janssen (2009) is of the view that an organisation´s growth is an outcome of enlargement of orders for products and/or services. He asserts, "It first results in a growth in sales and consequently in investments in additional production factors to adapt itself to new demands" (Janssen, 2009, p. 23). Sarwoko and Frisdiantara (2016) add that business growth is influenced by numerous aspects that encompass: individual characteristics, organizational characteristics, relationships and environmental characteristics, strategy development and planning, as well as organizational development. In addition, the growth of an entity is attributed to the personal value of the owner/manager and strategy (Street and Cameron, 2007).

2.3 The Adoption of e-commerce in Developing Countries

Electronic commerce is believed to be ideal for fostering growth for businesses in developing countries.
This is because of the usefulness of the internet based technologies for transaction cost reduction. It also has the capacity to facilitate the by passing of rent seeking intermediaries that used to delay the movement of goods across the global supply chains (Molla and Licker, 2005). Garg and Choeu (2015) posit that e-commerce also ushers benefits which include the reduction of communication and administrative costs as well as the improvement of accuracy. It also offers the transformative advantages which may include facilitating of business process re-engineering. It can also be used by businesses in developing countries or by supporting industry value chain integration through models like just-in-time inventory, using e-supply chain management.

Other scholars have articulated the strength of e-commerce which include improved sales performance, enhanced efficiency and improvements in transactional efficiencies (Zhu, 2004). SMEs in developing countries, however, have to contend with the difficulties associated that counterparts in industrialised countries do not contend with as articulated by Tan et. al. (2007). These challenges include organisational inadequate telecommunications infrastructure, the lack of the skilled personnel that is required for developing and supporting their e-commerce platforms.

On the environmental front, it is key to note that their customers are not as skilled with internet use as may be necessary for conducting business through the internet. There may also the lack of infrastructure and equipment for the timely e-fulfillment (i.e. delivery) of the physical goods that were bought over the internet. The customers in the developing countries often suffer the challenge of poor e-money penetration that should facilitate the purchase of goods over the internet. Equally as poor is the low income and low ICT and internet penetration. There has however, been an improvement in the use of both mobile money and mobile internet penetration.
Other scholars suggest that e-commerce adoption in developing countries is affected by the lack of entrepreneurial skills, lack of e-commerce skills and the dearth of awareness for innovation in the society. Furthermore, they lament the low literacy levels as well as the owner-manager tendencies (Nazir and Zhu, 2018).

SMEs have been found to be lagging behind large enterprises in their adoption of e-commerce (Simpson and Docherty, 2004). E-Commerce adoption is one of the areas they must address in order to avoid loosing market share to LEs. In addition to lagging behind in e-commerce adoption, SMEs lad behind like other players in the competitors in industrialised nations. The businesses in developing world lag behind due to trust issues (Molla and Licker, 2005). Organisations in developing countries have been encouraged to weaponise the complex functionalities of e-commerce tools like static presentations, dynamic web content with provisions for security and personalisation (Sutanonpaiboon and Pearson, 2006).

The context of commerce in developing countries must be understood in order to overcome the challenges of e-commerce adoption by SMEs in developing countries. Of particular interest are the organisational and environmental imperatives that differ from the industrialised nations. Information systems scholars have identified the inappropriateness of imposing Western models in developing countries (Avgerou, 2008; Hayes and Westrup, 2012). For that reason, this study attempts to investigate the organisational, technological and the environmental imperatives that are critical to the adoption of e-commerce by SMEs in the developing countries. Identifying the impediments and enablers of e-commerce in the context of SMEs in developing countries will inform both academics and practitioners about how to be internally and externally ready (Tan et. al., 2007).

2.4 Relationship between e-commerce adoption and SME growth

There is evidence which suggests that great penetration of digital technologies has enhanced effluence (Liste and Sørensen, 2015; Lember, Kattel and Kattel, 2018). This sets the scene for the adoption of e-commerce since both customers and businesses are using digital technologies. This benefits businesses SMEs included because e-commerce improves the efficiency of business transaction and increases revenue. Other scholars suggest that e-commerce also helps SMEs in developing countries by creating opportunities for the expansion of customer base and access to new markets (Pease and Rowe, 2003; Ahmed, 2018). .

In spite of all these advantages, there has been truncated progress in the uptake of e-commerce. Developing countries however, do not seem to be interested in exploiting these advantages that e-commerce provides. This suggest that there are some impediments that discourage the adoption of e-commerce by SMEs in developing countries like Zimbabwe. Of particular concern is is the lac of awareness of the benefits of using e-commerce for running business. According to Pease and Rowe (2003) the competitive nature of business in the information age calls upon all businesses including SMEs to build a competitive edge platforms like e-business and e-commerce. This is because of its numerous virtues but also because of the opportunities to acquire e-readiness for the adoption of upcoming innovations.

SMEs and other start ups have the advantage of being able to exploit their flexibility and speedy decision making capabilities, since most of them are owner managed and are bound by less bureaucratic constraints. This is a critical advantage in the wake of ever changing landscape of ICT innovation. While they may not have as much resource strength as their counterparts in the large enterprises, they have the advantage of being able to explore new frontiers of technological innovation and to establish their competitive edge while the large enterprise are caught up in the torturous process of analysing prerequisites like the return on investment associated with the adoption of the new technologies. There is evidence that explorative radical innovation as articulated by Heeks (2006) and Alghamdi (2018). Explorative innovation refers to the ability to experiment with new technologies in order to assess their usefulness to the organisation.

This puts small collaborating SMEs at a higher advantage than the traditional large enterprise that have dominated commerce in the pre-forth industrial revolution era. Large enterprises are however, better at exploiting tried and tested technologies since they have the financial and human resources for harnessing them. If they manage to expoit the technologies that are useful to them, SMEs therefore become ambidexterous and highly competitive. Alghamdi (2018) posits that orgnisations that are ambidextrous tend to excel since they are aligned to the current digital-business environment as well as adaptable to future changes.

In addition to the awareness that has already been discussed, the SME sector may also be limited by their local and regional focus. This makes it less interesting for them to view and accept the advantage of achieving a global reach.

The technological factor is of key concern to SMEs in developing countries. There is evidence that technological adoption is influenced by several factors which include the firm's characteristics competitiveness, the characteristics of the technology as well as the decision making process. Research on technological adoption has spelt out the realities that are faced by the owner manager as compared to the employee managers that usually manage the large enterprises. Of particular concern are the individual characteristics of the manager who is tasked with the decision to adopt or not to do so (Nazir and Zhu, 2018).

This capacity factor should be viewed as a organisational feature because the power of the skill and capacity of the staff determines the firm's ability to compete. The competitive advantage of the firm is also dependant on the ability to design web sites that are suited for the business requirements. This is a continuous endevour that determines the organisation's ability to acquire sustained strategic advantage .

2.5 The Drivers of e-Commerce adoption

The drivers of e-commerce among SMEs need a deeper assessment in the context of a constantly evolving e-world. Driver. Small to medium enterprises may benefit from increased sales revenue, cost reduction, higher productivity, improved quality of service and higher profitability. Other drivers of e-commerce adoption include efficiency in the quality of service, improvements in competitive position as well as procurement and distribution. According to Hildebrand (2002) cited in Chaffey (2009), about 50 to 55 cents in every dollar earned by a company that is spent indirect goods and services costs could be saved by harnessing the benefits of e-procurement. This would drive down indirect costs without increasing sales volumes.

A key driver of e-commerce adoption is the danger of missing the opportunity to save on the limited resources of SMEs. The phenomenal internet penetration that is taking place in the information age also compels businesses to trade online since a growing number of their potential customers are now online. It is estimated that about **x** million people will be on the internet by year **y**. In other words the question is no longer about whether firms should go online but rather how the adoption process must be managed. This therefore is a motivation for this paper to formulate model for the adoption of e-commerce by SMEs in developing countries.

In spite of the above drivers of e-commerce, it is important to acknowledge the environmental challenges that the SMEs encounter on the journey to e-commerce adoption. This includes the connectivity challenges that emanate from in adequate telecommunication infrastructure and unaffordability of internet access as articulated by Takavarasha and Adams (2018). They also face the challenge of a weak order fulfillment infrastructure that must deliver the physical goods that may have been purchased online. Order fulfillment refers to the activities that the company performs in the process of moving the purchased goods from the company to the buyer. This is dependent of the transport network i.e. the road, rail and air facilities in a country (Turban, et. al., 2018).
SMEs adoption is also affected by the vast proportion of unbanked people in developing countries. These potential customers that lack access to a proper electronic payment system discourage the SMEs propensity to adopt e-commerce. The advent of mobile money innovations in developing countries is a key enabler that must be weighed against the weak banking infrastructure.

2.6 The Zimbabwean Case
Zimbabwe is a landlocked Southern Africa country which has one of Africa's highest literacy levels. During the first ten years after its independence from colonial rule, Zimbabwe experienced an economic decline due to IMF inspired structural adjustment program. This worsened in the year 2000s when high inflation led to the reduction of industrial utilisation. It was found that in 2012, Zimbabwe had 3.5 million SMEs which had a combined turnover of USD 7.4 billion. These were owned by 2.8 million owners and the sector had absorbed 2.9 million employees. Research evidence also showed that 94% of the 6.3 million people that were considered to be employed in Zimbabwe were actually working the informal sector (Finmark Trust, 2013; Zimstat 2016).
This led to the growth of the mainly SMEs informal sector which absorbed the labour from the declining formal sector following the closure of Zimbabwe's heavy industry. Most of the former industrial artisans joined on an informal industrial sector which manufactures furniture as metal fabrication at a smaller scale.

After its worst economic contraction which culminated with inflation in 2008, Zimbabwe introduced a multi-currency regime with the USD as its semi-official denominator. This was followed by a cash crunch emanating from an

imbalance of payments as the country imported more than it exported and hence lost its much-needed cash reserves. This led to high usage of mobile money and electronic cards at the point of sale.
Zimbabwe's high usage is also complemented by high usage of ICTs by a highly literate populace.

According to Potraz (2019), Zimbabwe has an internet penetration of 57% and a mobile penetration of 87.8 %. This amounts to 8,577,936; active internet inscribers out of a population of 14.6 million. Most of its citizens access the internet through mobile devices mainly through over the top services like Whats App which consumes 60.9 % of mobile data usage and Youtube 16.5%. While mobile penetration is ideal, internet penetration is less encouraging to business that wish to rely on local clientele as most SMEs do.

In addition to the high mobile penetration and high ICT penetration, Zimbabwe also enjoys an appropriate environment for e-business. The government of Zimbabwe created the e-ready environment by introducing a raft of measures that include e-Readiness Survey(2005), Information and Communication Technology (ICT) National Policy of 2015, National ICT policy framework(2006) and the Cyber Security and Data Protection (2019). While this may require improvement, this legislative environment sets the scene for the adoption of ICT based technologies by Zimbabwe's SMEs sector. This seemingly fertile ground for e-commerce adoption by the Zimbabwean SME has not translated into the outcome that both scholars and government expect. This, therefore, makes Zimbabwe an appropriate unit of analysis for investigating the factors that influence the adoption of e-commerce in developing countries.

3. Theoretical Framework

Several theoretical models have been developed to try to explain the determinants of ICT adoption both at the individual and firm-level. The most frequently used theories are the Davis, (1989) Technology Acceptance Model, Rogers' (2003) Diffusion of Innovation and the Technology-Organisation-Environment framework (Tornatzky and Fleischer, 1990). This study has selected TOE because its consideration of organisational imperatives as well as the environment they operate in makes it appropriate for the adoption of e-commerce by SME (Hameed, Counselor and Swift, 2012). While SMEs tend to be influenced by the owner-manager, they are mindful of organisational capacity since they employ people skills and competences affect the propensity to adopt e-commerce.

Tornatzky and Fleisher's (1990) Technology-Organisation–Environment Framework (TOE) explains the process by which a firm adopts and implements technological innovations. It has been used for assessing adoption in various sectors. This study, however, applies to the multi-sectoral field of e-commerce. According to this theory, the extent to which a firm may adopt and implement technological innovation is influenced by the technological, organisational and environmental contexts (Tornatzky and Fleisher, 1990).

The technological context includes the internal and external technologies that are relevant to the firm. Technologies may include equipment, processes and or practices internal to the firm. The organizational context refers to the characteristics and resources of the firm, such as the firm's scope and size, degree of centralization and formalization, managerial structure, amount of slack resources, and linkages among employees. The environmental context is the business environment in which the firm operates and it includes the size and structure of the industry, the firm's competitors, the macroeconomic context, and the government regulatory environment.
Figure 1. Below is a schematic representation of the TOE framework. These three elements, that is, technology, organisation and environment, influence the way a firm sees the need for, searches for, and adopts new technology. Thus the three elements present both constraints and opportunities for technological innovation (Tornatzky and Fleisher, 1990).

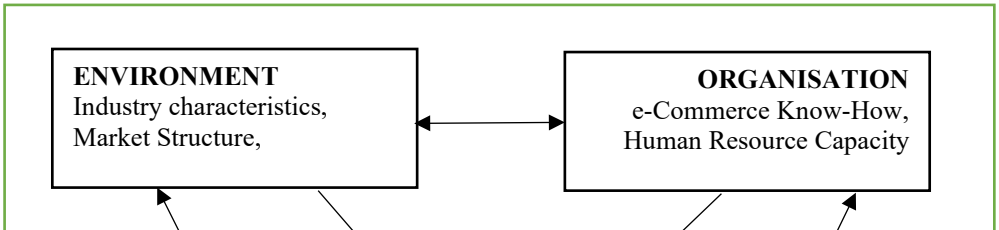

Figure 1. The Technological - Organisational - Environmental Framework. Adopted from Tornatzky and Fleisher, (1990)

Since TOE framework has a wider scope and application, it has a solid theoretical basis and consistent empirical support in information systems research. It is also a useful analytical framework that has been widely used to study the adoption and diffusion of different types of information communication technologies. A number of ICT adoption research studies that have used this theory include Al-Qirim (2007); Zhu, and Kraemer, (2005); Hameed, Counselor and Swift, (2012). Against this wider use of TOE, it has been noted that the independent constructs used in the three contexts have been varied by various studies that operationalise them differently.

4. Methods

This paper adopted a qualitative research methodology that made use of explanatory research, to evaluate the importance of e-commerce adoption to the growth of SMEs in Zimbabwe (Creswell, 2014). It uses Tornatzky and

Fleischer's (1990) TOE to sensitize the research process under an interpretivist paradigm. Interpretivism enabled the research to harness multiple interpretations of the views of the participants (Klein & Myers, 1999). In-depth interviews were conducted with fifteen (15) participants that were purposively selected for the in-depth interviews. The sample was selected from SMEs from the furniture and metal fabrication sectors of Zimbabwe. The companies were selected by considering the technological, environmental and organisational contexts that were deemed relevant for this study. The technological imperatives include their location in places that has electricity and internet connection. The organisational issues of concern included the possession of a personal computer, mobile device or a website. Since the environmental that affect the organisation in the same geographical area are usually constant, the factors we considered in the selection criteria was chiefly their market focus. It was assumed that an environment that has steep competition and a market that is not entirely local would predict an awareness of the need to adopt e-commerce.

A pilot study was conducted with three participants who were not part of the study. This was done to validate the interview guide's user-friendliness. A few problems were identified through user feedback and researchers' reflection. The identified snags were documented and used for revising the final version of the interview guide.

Table 1. Stages of thematic analysis (Braun and Clarke, 2006)

Stages	Action	Description of the process
1	Familiarizing with data	The researcher became acquainted with the data by going through the whole data collection process, verbatim transcription of the interviews, field notes and developing theoretical memos (Braun and Clarke, 2006).
2	Generating initial codes	The researcher selected the relevant word, phrases, and sentences as basic themes to the probing questions.
3	Searching for themes	We collated codes and gathered them into relevant and potential themes
4	Reviewing themes	We revised all the themes in detail to make sure they are relevant to the research questions posed. This includes checking the themes concerning the coded extracts and the overall data set
5	Defining and naming themes	At this stage, we stated the essence of each theme and determine the relevant aspect of the data each theme captures.
6	Producing report	All data extracts relating to the analysis of the research question and literature are presented

For conducting data analysis, the study adopted Braun and Clarke's (2006) six principles and guidelines of thematic analysis as depicted in Table 1 above. At least 12 sub-themes were identified from three major themes drawn from TOE. Our analysis was based on TOE factors and is discussed below in the findings section.

5. Data Collection

Table 2. The TOE variable and their effect on e-commerce adoption

TOE Construct	Code	Element /variable	Effect on e-commerce adoption
Technology	TII01	ICT Infrastructure	Inhibit
	TCI02	Technology Competence	Inhibit
	TAI03	Technology Affordability	Inhibit
Organisation	OAI01	Organisational Awareness	Inhibit
	OSI02	Management Support	Enable
	OOI03	Customer Orientation	Inhibit
	ORI04	Organisational Resistance to change	Inhibit

Environment	EEI01	Customer Expectations	Inhibit
	EPI02	Suppliers/partners expectations	Enable
	ECI03	Competitive pressure	Inhibit
	EGI04	Government support	Enable

The qualitative data were collected using a process of audio recording and transcribing. Exceptional cases included instances where company representatives were not willing to be recorded. In this case, the researcher took notes as the interview progressed. The analysis process included the coding of data and grouping the data by themes (Miles and Hubernam, 1994; Braun and Clarke, 2006). The participants were asked to consent to be interviewed. They were also advised that they had the right to withdraw their consent during the interview if they so wish. The participants were also advised that their identity was going to be anonymised in the published report. This approach was approved by the Women's University in Africa's research and ethics board and it was conducted in keeping with the highest ethical standards as articulated by Babbie (2013).

6. Results and Discussion

The research findings show that the adoption of e-commerce by the three main components of TOE. These are 1) Technological imperatives, 2) Organisational Imperatives and 3) Environmental Imperatives. Table 2 above shows the 12 sub-themes that are categorised under the TOE components.

6.1 Technological Imperatives

Three themes emerged from technological imperatives of TOE framework. These were ICT infrastructure, Technological competence and technology affordability. The SMEs in Zimbabwe were found to be lagging behind other SMEs in the region and larger businesses concerning the adoption of E-commerce. Their main weaknesses were attributed to inhibitors such as lack of technology infrastructure and staff that lacks information technology skills and the unaffordability of internet access.

In terms of ICT infrastructure, the study indicated that most respondents rated ICT access (especially the internet) at their organisation as weak. This implies that the respondents viewed the access of the internet at their organisation as not sustainable and efficient. As participant ST1 put it, '*SMEs are small companies struggling to get the things we need for business. Internet is a luxury we can not afford before we have tools for the job. So we don't have the internet*.' This is consistent with El-Nawawy and Ismail, 1999) who found that telecommunications infrastructure, financial infrastructure and the legal system played a pivotal role in deterring e-commerce diffusion.

6.2 Organisational Imperatives

Four themes were analysed i.e. organisational awareness, organisational support, customer orientation and organisational resistance to change. On the first theme, we found that most SMEs owners are not aware of new and improved technologies that lead to the growth of their businesses. This leads to poor e-commerce development strategies and the employees are also lagging behind in their Information and Technology skills. Asked why they don't consider using e-commerce to expand their business, a steel fabricator ST6 said, '*…but I have what App I talk to customers about my business that way. It does not bring much more business than I can have with my usual customers.*' Particinatnt FI 3 from the furniture industry echoed the same sentiments, '*My customers come here….customers from far away can mean more business but its also too much headaches with transport for me and for them. The internet will not help business that much*.' This shows that they have a focus on local customer and such customer orientation inhibits e-commerce adoption.
The findings show that most of the participants' responses showed resistance to change. Organisational resistance to change is one of the challenges faced by SMEs in adopting to e-commerce systems.

6.3 Environmental Imperatives

The study analysed four themes i.e. customer expectations, supplier/ partner expectations, competitive pressure and government support as factors that influence the adoption of e-commerce by SMEs. As can be seen in Table 2 above, all of the four factors were found to be inhibitors of e-commerce adoption with the exception of government

support. The SMEs will not adopt e-commerce because of the absence of customer and supplier expectations. They also lack any pressure from competition. It was found that the government had made a significant effort to enable SMEs to adopt e-commerce. Most of the respondents also agreed that the Zimbabwean legal environment was conducive to conduct business on the internet.
The one economic environment was, however, presented as an inhibitor according to participant ST12, '*Zimbabwe is going through tough economic times due to high inflation rates*. It is not the time for expensive experiments with expensive things.' This contribution shows that financial constraints and economic environment hinder the adoption of e-commerce systems by SMEs.

7. Discussion

The adoption of e-commerce in developing countries like Zimbabwe is riddled with challenges. This is more so in the SME domain where most of them are underdeveloped owner-managed organisations. We believe that the objectives of this study were achieved to a great extent. It has revealed the SMEs' understanding of the necessity of e-commerce adoption. It has also unpacked E-commerce adoption and the growth of Small and Medium Enterprises (SMEs) as well as the relationship between e-commerce and SME growth in Zimbabwe.

7.1 SMEs' understanding of the necessity of e-commerce adoption

While this question was not part of the underlying constructs of the TOE framework that guides this study, the SME's understanding of e-commerce was found to be an important predictor of intention to adopt. It was necessary given that it facilitated the researcher to establish what the interviewees understood the necessity of e-commerce adoption. Most of the interviewees indicated that they were aware of what e-commerce is.
There was also a lack of awareness of new and improved technologies that lead to the growth of their businesses. This is in agreement with Nazir and Zhu (2018) who found that one of the characteristics of SMEs was that they lacked technical knowledge and specialist staff and they also did not provide any information communications technology training to their employees.
Some two interviewees were not aware of what e-commerce is and they could not easily elaborate on it. The responses obtained from this understanding made the results more reliable as the researcher was dealing with a greater number of participants who understood the subject matter under study.

7.2 E-commerce adoption and the growth of Small and Medium Enterprises (SMEs)

The SMEs in Zimbabwe considerably trail behind other formal business in the adoption of E-commerce. The research findings show that this owes to several factors that encompass financial constraints, lack of technology infrastructure and staff that lacks information technology skills and competence. The majority of those that were interviewed noted that while they have emails and website that allows for advertising these websites they lacked detailed display of company's products & services, on-line enquiry, on-line ordering and on-line transaction processing (for example, on-line sales and online payment all through the internet). The adoption of e-commerce among SMEs in Zimbabwe is reflected by lack of readiness which includes issues of preparing the technical, commercial and social infrastructure necessary to support electronic commerce. It is also reflected by the low intensity which refers to the current state of e-commerce, including the size and nature of transactions/business.

In addition, it emerged from the study that a large number of SMEs do not know how to profitably develop their e-commerce activities or how to cope with the complex rules governing this area. The lack of appropriate human resources, in terms of technical and/or managerial staff familiar with the IT environment, constitutes a major barrier for SMEs wanting to adopt e-commerce technologies and strategies.

7.3 Relationship between e-commerce and SME growth in Zimbabwe

It is the finding of the study that while there is a relationship between e-commerce and SME growth in Zimbabwe, E-commerce adoption and use in Zimbabwe's SMEs is influenced by several factors including financial constraints hence making it impossible to model a "one-size-fits-all" E-commerce explication for SMEs. E-commerce has been noted to have the potential to lead to significant productivity gains at the firm level, particularly if applied to business-to-business relations, electronic technologies can lead to a rationalisation of business processes and cost savings. As an immediate impact, these technologies allow the automation of common processes, such as distribution, sales, after-sales service and inventory management. Furthermore, the increased costs of the Internet, SMEs find it difficult to afford e-commerce solutions for the management of business processes.

7.4 The contribution

The study contributes to the existing body of knowledge about the significance of E-commerce adoption and its use in SME growth in developing countries by demonstrating that technological imperatives inhibit e-commerce while environmental imperatives enable it. Furthermore, it shows that half of the organisational themes that emerged from the study represented e-commerce inhibitors.

8. Recommendations

In light of the study findings, many SMEs revealed a narrow understanding of the benefits of electronic commerce. Information on e-commerce, i.e. dissemination of information on best practices, success stories and opportunities and obstacles related to the use of the Internet and electronic commerce, is one crucial area for policy action. Hence, it is recommended that initiatives focused on acquainting SMEs with business applications of the Internet and e-commerce issues should be formulated.

With regards the initiatives to stimulate the SME uptake of electronic commerce, greater interest should be directed at small-firm needs in terms of training and skill development strategies, as small firms tend to provide less training, of shorter duration, and usually of a short-term nature. Furthermore, and of particular importance to small firms are policy issues relating to the network infrastructure. Infrastructure access costs are relatively high in Zimbabwe and these need to be rationalized.

9. Conclusion

From this primary investigation, it would appear that the adoption of e-commerce by SMEs as a growth driver is greatly limited and is largely limited to emailing. In light of the expansion of e-commerce and its adoption as a way of accelerating the growth of businesses, small and medium enterprises are still trailing behind the bigger organizations in its adoption. This study authenticates that e-Commerce adoption in SMEs in Zimbabwe are still at a low level. However, the study was confined to Harare province and it would be apposite to enlarge the study to SMEs throughout Zimbabwe. Indeed further research should essentially be focused on explicating more copiously the perceptions of SMEs towards the adoption of e-commerce as well as ascertaining aspects constraining its adoption.

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