

THE CONTRIBUTION OF ICT IN THE DEVELOPMENT OF SMALL BUSINESS SECTOR IN ZIMBABWE: A CASE STUDY OF HARARE METROPOLITAN

Gerald Munyoro, Softy Liberty Mungana, Patience Anna Muchaendepi & Wilmore Nhevere

*Research Scholar, Graduate Business School, School of Entrepreneurship and Business Sciences, Chinhoyi University of Technology,
Chinhoyi, Zimbabwe*

Received: 20 Mar 2019

Accepted: 28 Mar 2019

Published: 10 Apr 2019

ABSTRACT

This study aimed to establish the contribution of information and communication technology in the development of the small business sector in Zimbabwe and this was achieved through the phenomenology research philosophy and a case study design. The sample was made up of 500 respondents. Questionnaires and focus group discussions were used to collect data from the respondents. The results obtained from the study show that ICT is of the essence in the development of the small business sector. Results of the study also show an improvement in the adaptation of information and communication technology by the Zimbabwean small business sector. Furthermore, it was established that the use of ICT improves efficiency and enhance business performance. With the mentioned findings, it was concluded that the use of information and communication technology is significant in the development of the small business sector. To assist in the adaptation of information and communication technology by the small business sector, the study recommends that the government should provide more facilities and infrastructure, offer ICT training programs. For full utilization of ICT, the general public should also invest more in information technology so as to improve their appreciation of technology and ICT facilities.

KEYWORDS: *Adaptation Of Information And Communication Technology, ICT Improves Efficiency And Enhance Business Performance, Small Business Sector*

INTRODUCTION

The world as of the 21st century is a resultant implication of the process of globalisation (Munyoro and Nhevere, 2019), which has ultimately directed emphasis on the importance of shifting from the traditional way of marketing and conducting businesses (Mattii, 2002) to a new system which heavily relies on technology adoption as noted by Mokyr (1997), Garcia (2002) and Hakansson (2015). In support of this, Murdoch (2000) suggested that the world is undergoing a fundamental structural change which has been brought about by two significant drivers which are technology and innovation. Gupta (1997) also argues that technology and innovation cannot be addressed without mentioning the advent of the internet which is probably one of the greatest technological innovations of all time. The internet was created in the late 19th centuries and as noted by Nunberg (2012) it has revolutionized the way that the global world conducts businesses through the provision

of quick communication platforms such as social media, provision, and promotion of research and development leading to most firms attaining a competitive advantage. In support of this, Yin (2005), Skoko et al (2008) showed that in developed countries such as China, information and communication technology is being used to drive economic growth and performance and this has led to the increase in the number of registered companies in China. Statistics show that as of 2005, more than 10 million small businesses were registered in the industry and commerce department in China and this is in light with the advantages inherent to internets such as speed, user-friendliness, low cost and wide accessibility which has allowed the use of ICT to be increasingly adopted in developed countries as noted by Gibbs & Kramaer (2004). In addition, The Council of Economic Advisors (2001) suggested that two defining characteristics of the U.S economy in recent years have been accelerating productivity growth and strong investment in computers and other information technology (IT) assets as a result of technology and innovation. Furthermore, Jorgenson and Stiroh (2000) suggested that the emerging consensus is that both the production and the use of ICT have contributed substantially to the aggregate productivity revival of the U.S economy. This was also supported by Kazi (2009), and Alberto and Fernando (2007) who highlighted the significance of ICT facilities to developed countries such as Australia and the United Kingdom by showing an increase in efficiency, cost-effectiveness, competitive advantage of companies that adopted ICT facilities. This shows that for most developed countries ICT is working as a development and performance driving tool for companies in those developed countries (Barczak and Sultan, 2007). However, what has not been established is the existence and contribution of ICT in developing countries such as Zimbabwe. The cultural adaptation presented by Anderson (1994) suggested that innovation starts in developed countries such as the USA and Great Britain after which it slowly trickles down to developing countries as they are relatively slow in terms of adoption. Since in developed countries the concept of ICT has indicated success stories, not much have been said about developing countries such as Zimbabwe even though ICT has been proved to be a performance enhancement tool for companies of all sizes. Consequently, this study aims to determine the contribution of ICT in the development of the small business sector in Zimbabwe.

What is the Small Business Sector?

Storey (1994) and Munyoro et al (2016) observed that there is no universally agreed definition of the small business sector and this is supported by Maseko and Manyani (2011) who argue that countries are diverse and hence they adopt different perspectives as to what small businesses are. Thus, most definitions of small businesses are based on size and they tend to be measured in terms of the number of employees, financial position and annual turnover as noted by the Official Journal of European Union (2003). Ward (2014) showed that in Canada a small business is defined as a company which has not more than 100 employees in the manufacturing sector and has fewer than 50 employees in the services sector. Whilst in the United States, the Small Businesses Act states that a small business is one that is independently owned and operated and is not dominant in its field of operation. Furthermore, the Bolton Report of 1971 from the United Kingdom (UK) gave some guidelines as to what small businesses are and it recognizes the relevancy of size in relation to a particular industry (Bridges et al, 2003; Beaver, 2002). In Zimbabwe, the Small and Medium Enterprise Development Corporation (SMEDCO) (2010), the

financing arm of the Ministry of Small and Medium Enterprises and Cooperative Development (MSMECD) views a small enterprise as a firm that has not more than hundred employees and a maximum annual sales turnover of USD830 000. Whilst, the MSMECD policy and strategy framework defined the small businesses as those registered in terms of their legal status and employing anywhere between 6 to 100 workers. The latest Zimbabwean SME Act (2011) describes small businesses as the business organizations with an asset value of USD10,000 to USD2 million, employs 2 to 20 people and has an annual turnover that ranges from USD30,000 to USD5 million. The same definition has been adopted by the central bank, RBZ (2013). Whilst, ZIMRA's definition is also in line with the above as it is governed by Section 2A (2) of the Finance Act [Chapter 23:04] which was amended to the effect that the definition to be used by ZIMRA shall be that in the Small and Medium Enterprises Act [Chapter24:12]. Whilst, Munyoro et al (2016) defines a small business as a small scale enterprise which is independently owned and run for the purposes of profit and employment. Munyoro et al (2018) also define a small business as a privately owned enterprise that employees not more than 100 workers and has an annual turnover of up to USD830 000, is highly innovative because it uses high technology and is managed profitably. In this study, a small business is defined as a privately owned enterprise that employees not more than 100 workers and has an annual turnover of up to USD830 000 and is highly creative, innovative and profitably managed.

The Advent of the Small Business Sector

There are various theories surrounding the arrival of the small business sector and these include the specialization phase, recession push phase, technological phase, liberalization phase and demand change phase.

The Recession Phase

The world recession in the 1980s which had the negative impact on the economies of both the developed and developing countries, it is claimed had a negative economic growth, which resulted in high unemployment and social conditions due to the closure of companies and which were not replaced (Choshi, 1996; Echevarri, 1993). Interestingly, only large firms were heavily affected by closure compared to small businesses (Choshi 1996; Loveman and Sengeberge 1991). Thus, this theory is similar to the labor supply theory which states that the small business sector development was a response to unemployment that was becoming rampant and this was the last option to the people who were once formally employed (Pedersen 1998). This theory seems to be applicable to the development of small business sector that has been seen in recent years in developing countries like Zimbabwe.

The Liberalisation phase

It is important to note that the policies that a government place in its country has a demeanor on industrial sectors and thus, these policies can impact either positively or negatively to the growth and development of any industrial sector including the small business sector. Consequently, most developing countries have a tendency of producing policies that support large

scale enterprises whilst neglecting small enterprises (Devarajan, 2016). In this case, large scale enterprises turn to profit from trade protection, government subsidies, subsidized credit, domestic monopolies, access to technology and raw materials (Guarino, 2018). This theory demonstrates that government policies that support bigger firms can act as a limiting factor in the development of small enterprises (Chukwuemeka, 2014; Nkonoki, 2010). For example, in Zimbabwe-the government adopted the Economic Structural Adjustment Programme (ESAP) in 1991 and this shifted the control on the economy from government to market forces (Chivasa, 2014; Tevera, 1995; Helmsing, 1993; Mumbengegwi, 1993) thus by shifting focus from the government to the market forces, trade was liberalized hence small enterprises were now able to penetrate both the local and the global market at ease (Nyamwanza, 2014).

Flexible Specialisation Phase

Flexible Specialisation theory highlights the downfall of uniform and stable mass markets in the environment and it also stresses on the need to introduce new microelectronic technologies in the production system (Jessop et al, 1992). This theory focuses much on the manufacturing bit, mainly dealing with how to the manufacture products using flexible, general purpose machinery and skilled adaptable workers and this concept was pioneered by Helmsing (1993) as well as Grotz and Braun (1993), Dicken and Llyod (1990) and Oberhauser (1990).

Technological Phase

It is essential to note that the introduction of new technologies (the flexible specialisation phase) resulted in capital costs and reduction of the efficiency gap between long and short runs of production, thereby improving the competitive edge of the small enterprise production as noted by Choshi and Chivasa (2014) as well as Rasmussen (1992), Loveman and Sengenberger (1991) and Uribe-Echevarria (1991). These new technologies proposed that small firms can now produce the same goods as large enterprises as well and in the 1970s some countries experienced changes in the markets (Jessop et al, 1992). The income levels of some people increased and hence the customer taste became differentiated and that consumers became needy (Kotler and Armstrong, 2010). This led to an increase in demand for customized and sophisticated products, which could not be produced in masses (Gandhi et al, 2013). Most firms started to produce small batches of such products and this was taken as a task for the small business sector (Murray, 2018). This theory, however, falls short in elucidation on the upsurge of small enterprises in developing countries where there are still low-income levels for the greater number of the people hence it is only functional in developed countries (Ali et al, 2014; Reeg, 2013). The surge of small business has also seen a rise in the use of information, communication, and technology (ICT) with the aim of improving efficiency and over the last decades, governments all over the world, especially in developing countries, have tried to take advantage of (ICT) in order to improve government operations and communication with its people whilst small business sector has been neglected (Liu and Yuan, 2015).

The History of Small Business Sector in Zimbabwe

In Zimbabwe, the small business sector dates back to the 1890s when the British colonized Zimbabwe (Munyoro et al, 2018). Just like unequal distribution of land and mining rights, white people also enjoyed the benefits of the Zimbabwean resources through the promotion of small businesses sector (Herbst, 1987; Paulo, 2004; Masilela and Weiner, 1996; Debele et al, 2014; Munyoro et al, 2017). In this case, the whites who were 3% of the population controlled 51% of the land while the remaining 97% being black population only controlled 49% (Weiner et al, 1985) because land has always been a source of small businesses sector in Zimbabwe and beyond since 1890 to date due to distribution inequity (Mazingi and Kamidza, 2011; Human Rights Watch, 2002; Moyo, 1994). For example, the white minority who comprised 3% of the population controlled 75% of the economically viable land and small businesses, whilst the black majority only had the remaining overcrowded, scattered and unfertile land at their disposal and not involved much in small businesses' activities (Mabaye, 2005; Chitsike, 2003).

Pre-Independence (1950s-1980)

This era which is largely referred to as colonial Rhodesia was characterized by various socio-economic and political ills that led to gross marginalization of black (Madimu, 2017; Munyoro et al, 2018). As Sanders et al (2005) and Munyoro et al (2016) correctly stated, most black people viewed business opportunities as their last resort and thus felt compelled to start businesses because other work options were either non-existent or unsatisfactory. This is also supported by Ndiweni and Verhoeven (2013) who noted that in other marginalized parts of the country individuals were involved in small business activities as a protest against the government (the Smith Regime in this instance) whose role had little relevance to their existence. However, Ndoro (1996) and Munyoro et al (2016) observed that as part of the legacy of colonial rule, most of the activities in the informal sector were deemed to be illegal and in that regard, communities redressed their social grievances through economic activities such as transporting of people and goods among others as argued by Hagen (1957), and Shapero and Sokol (1982).

First Decade Small Business Sector (1980- 1990)

Maphosa (1998) and Munyoro et al (2016) brought to the fore the idea that building on cultural values of self-reliance, independence, and pride was of paramount importance and this has been seen to be the key driver of small business development given the history of colonial rule. Even after the attainment of independence in 1980; glaring inequalities between blacks and whites; the inheritance of minority-focused policies and regulations greatly affected the economic performance such that blacks continued to seek for the redress of the existing inequalities because the whites who constituted 4% of the country's population controlled over 90% of the economy in terms of owning the means of production while blacks who accounted for 96% of the population only controlled 10% of the economy (Mazingi and Kamidza, 2011) through venturing into small business activities (Munyoro et al, 2016). The Riddell Commission of 1981 as suggested by Ndiweni and Verhoeven (2013)

reviewed about 28 Acts which prohibited informal activities and recommended that they are repealed, a development which opened opportunities for small business owners. The conclusion that can be drawn in this instance is those small businesses were used as critical tools of reversing the vestiges of the colonial past (Munyoro et al, 2016 and Chikombingo et al, 2017).

Second Decade Small Business Sector (1990-2000)

As earlier alluded, the lack of viable alternatives compelled many to engage in informal activities in spite of several challenges that characterise this sector such as lack of security, organization, recognition, social protection and legal representation, lack of government and institutional support, and inaccessible resources as argued by Ngundu (2010), Munyoro et al, (2016) and Chikombingo et al (2017). The adoption of the Economic Structural Adjustment Program had major repercussions on the country's economic performance thus the major alternative still was to adopt entrepreneurial skills especially by blacks (Munyoro et al, 2016; Munyoro et al, 2016; Chikombingo et al, 2017). Likewise, Kamidza et al (1999) agree that inadequacies of ESAP included lack of stakeholder consultations during the design of the programme and performed dismally because it lacked national ownership, failure to factor in the likely impact of exogenous factors, particularly drought, a combination of frictional and structural vulnerability and skewed access to resources (Munyoro et al, 2016). Unfortunately, as stated by Saunders (1996) the working class bore the brunt of ESAP, as public expenditure on healthcare declined by 39% in 1994-95, inflation averaged over 20%, and over 55,000 Zimbabweans lost their jobs (Munyoro et al, 2016; Chikombingo et al, 2017).

Third Decade Small Business Sector (2000-2010)

Large businesses in this era continued to muscle out small businesses because of the capability to acquire cutting age (Munyoro et al, 2016; Chikombingo et al, 2017). Furthermore, the fast track land reform also took off in the year 2000 coupled with many economic changes that really affected the growth of large companies leading to their closure as noted by Munyoro et al (2016), Chikombingo et al (2017) and Chigunha et al (2018). Likewise, Fundira (2007) notes that some Zimbabwean businesses benefited from the situation by taking advantage of poor enforcement of financial regulations to exploit ordinary Zimbabweans through criminal strategies such as money laundering, as in the case of ENG Capital (Munyoro and Dube, 2016; Munyoro et al, 2016). Despite such misgivings, small business continued to thrive and this is not surprising given that literature on small business suggest that small businesses tend to thrive in difficult times because they are flexible, dynamic, marketing oriented and resilient (Munyoro et al, 2016; Chikombingo, 2017).

Zimbabwean Small Business Sector from 2010 to date

This is the era of Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset)-an economic blueprint which was introduced in 2013 (Munyoro et al, 2016). The cause for the creation, promotion, and growth of the small business was as a result of work options which were now non-existent. So the argument here is that since the economic was melt down, industrial capacity utilization was declining dismally, companies closing, thus this gave birth to a thriving

informal sector (Matsvai et al (2014; Munyoro et al, 2016). Another dimension brought about by Yamamoto (2014) were that instead of accelerating the growth of small business sector the government did not do enough to encourage the growth of small business sector but instead they were being persecuted despite contributing to the economic growth of the country by providing employment, paying tax and developing infrastructure except for ICT investment (Munyoro et al, 2017; Liu and Yuan, 2015; Ali et al, 2014; Reeg, 2013).

What is Information and Communication Technology?

Information and communication technology refers to a varied array of computerized equipment (Nureni, 2014; Arugu and Chigozie, 2016). Ashrafi and Murtaza (2008) define Information and communication technology as any form of technology that allows communication, electronic capturing, processing, and transmitting of information. These technologies comprise of a wide range of products and services such as desktop computers, laptops, handheld devices, wired or wireless intranet, business productivity software such as text editor and spreadsheet, enterprise software, data storage and security, network security just to name a few (Ashrafi and Murtaza, 2008, Apulu and Emmanuel, 2011). Whilst, Herselman, and Hay (2003) define information and communication technology as the technology that supports the communication and co-operation of human beings and their organizations whilst creating and exchanging knowledge. Therefore, ICT can be pronounced as any tool that enables communication, transmission of information and knowledge sharing through electronic means and the commonly used ICTs in Zimbabwe include the following mobile phones, Automated Teller Machines (ATMs), Personal Digital Assistants (PDAs) and the Internet.

Benefits of Information and Communication Technology

ICT is a broad theory that covers Information Systems (IS), Information Technology (IT) and digitalization (Martin & Matlay, 2001; Fulantelli & Allegra, 2003; Ritchie & Brindley, 2005). Thus, small businesses from developed countries have benefited immensely from ICT through efficiency inventory controls, efficient quality controls, reduced transactional costs and increased market base online (Xiong and Qureshi, 2014). Furthermore, the internet as a standalone factor has ushered the development of the printing press and services marketing online as noted by Antila (2016). As a result, (Nunberg, 2012) suggests that the advent of the internet has resulted in the introduction of e-learning, e-business, e-commerce, digital networks that allow online businesses such as gaming, shopping, social networking, and entertainment online just to mention a few (Buhalis & Jun 2011).

Classification of ICT for the Small Business Sector

Lucchetti and Sterlacchini (2004) classified ICT into various classes as stated below:

Production-integrating ICT

Production-integrating ICT is technologies that are linked to the production processes and conducted within the firm or base on the inter-firm relationships (Pillay, 2016; Lucchetti and Sterlacchini, 2004). In this case, the applications and tools employed comprise of Enterprise Resource Planning (ERP), billing systems, Customer Relationship Management (CRM), and computer-aided design and these systems allow information to be shared amongst firms in the small business sector (Alijawarneh and Al-Omari, 2018). Although they are expensive to acquire they need appropriate technological knowledge skills to carry them (Dibon, 2018). The benefit of possessing these is that product innovation and faster service delivery as noted by Corso et al (2001).

Market-oriented ICT

This form of information and communication technology makes the firm available on the global market using the internet as its tool (Berisha-Shaqiri, 2015). Market-oriented ICT uses the internet for display and advertisement of the firm's products and services thus it provides a wide coverage on both the local and the global market as noted by Lucchetti and Sterlacchini (2004). Some websites have a platform for placing orders online, that is, the e-commerce functionality and the World Wide Web is an influential platform for marketing products and services at the same time making the enterprise visible on the global market. It can also award the small enterprise sector with an opportunity to conduct business with in the same markets that are monopolized by bigger enterprises hence leading to improvement of the quality of products and services due to exposure to the competitive global market (Glucksman, 2017).

General-user ICT

This is the starting stage for most firms, it is the basic implementation of Information and communication technology and it covers the use of e-mails and internet (Arugu and Chigozie, 2017; Glucksman, 2017). The rate of uptake at this stage is very high due to low costs that are associated with technology acquisition as noted by Brandt and Zhu (2005). The general user does not gain competitive advantage but gets access to being competitive (Ma, 2004).

Factors Limiting ICT in the Small Business Sector

Developing countries face various challenges in incorporating ICT in the day to day running of businesses, hence Zano et al (2008) states that the embrace of ICT is not easy, as it requires capital expenditure to install ICT support facilities (Shcoep 2005). A barrier is defined as any condition that makes it difficult to make any progress or to achieve any goal as noted by Shcoep (2005).

Telecommunication monopoly by the government and obsolete regulatory framework in Zimbabwe

The networking problem in Zimbabwe generally stems from obsolete policies and a negative regulatory framework by the Government because telecommunications has been considered as a public (Government) property like in many developing countries ((Nhede, 2016; www.techzim.ac.zw). TelOne (a government-owned Telecommunications Company) is

responsible for telecommunication services in Zimbabwe. Government-owned telecommunication operations are usually inefficient (www.telone.ac.zw; www.techzim.ac.zw). Just as Adam (1996) highlighted, commercial service providers are not allowed to provide value-added services. There are three mobile operators in the country, Telecel, NetOne and Econet and some aspiring operators from neighbouring South Africa. However, their services are yet to be standardized with the blame mounted on government policies with regard to communication (Zano et al, 2008). The majority of African governments still require longer times to understand the value networking offers to their competitiveness and its abilities to foster positive changes in quality of life, let alone, the business world. Issues such as cultural erosion, pornography, privacy, security, loss of revenue are often amplified by government-controlled media as opposed to promoting empowerment via networks and what it can achieve (www.techzim.co.zw; Zano et al, 2008). Thus, Omekwu (2003) suggests that to prevent monopoly in the information industry, it is necessary to regulate the process of conglomeration whereby vertically and horizontally integrated corporations are concentrating ownership of the information services. This measure is gradually taking shape with the Zimbabwean government privatizing the provision of most services to the public (Zano, 2008).

Financial Problems

Eadie (2001) and Zano et al (2008) state that the major obstacle hampering the development and extension of information systems was lack of funds and absence of the engineering infrastructure needed for the development and production of spares and components. Foreign exchange restrictions are effected by adverse foreign exchange transactions (Garcia, 2017; Zano et al, 2008). The high cost of ICT facilities or information infrastructure has been reported as one of the factors that influence provision and use of ICT services and poverty has led to underfunding which has continued to inhibit the rapid development of telecommunications in the country (Adomi 2006; Zano et al, 2008). This situation has worsened in recent years because of the large-scale devaluation of the national currency, inflation and the shortage of foreign exchange with which to prosecute many projects (Zano et al, 2008; Garcia, 2017).

External and Internal Barriers

In developing countries, small enterprises are challenged by the globalization of production and the shift in the importance of various determinants of competitiveness (Zano et al, 2008; www.techzim.co.zw). ICTs can improve efficiency and increase productivity in different ways including reducing transaction costs, improving efficiency in resource allocation (Akaba et al, 2014; Awuah and Amal, 2011). Hence, Kapurubandara et al (2006) regard internal and external barriers that obstruct the embracing of ICT by small enterprises in a developing country as social, cultural, political, infrastructure, legal and regulatory whilst the internal barriers comprise of firm characteristic, owner/manager characteristics, and cost and return on investment. Most of the SMEs are owner managed and the owner makes most of the decisions concerning the running of the business and it means that the owner/manager decisions take preference in the business; in the event that the owner/manager is not interested in a matter it will not be implemented (Spieker and Murray, 2008; Akaba et al, 2014; Awuah and Amal, 2011). Unfortunately, the owner/manager's limitations become the business' limitations and this can be considered as a strategic

level problem. It is said to be strategic because decisions are being done at a strategic level where the owner/manager has a greater say (Akaba et al, 2014; Awuah and Amal, 2011; Spieker and Murray, 2008; Kapurubandara et al, 2006).

Adaptation of ICT by the Small Business Sector

Diffusion Theory

Pedersen (2003) claims that studies on ICT have portrayed three possible approaches in which it was embraced into the business world: a diffusion approach, an adoption approach and a domestication approach. Roger's Diffusion of Innovation theory is of the notion that media and interpersonal contacts deliver information that influential to a person's opinion and judgement (Sahim, 2006; Atkin et al, 2015). The theory comprises of four elements: invention, diffusion through the social networks, time and penalties (Sahim, 2006). Information travels via the networks and depending on the nature of the networks and the roles of its opinion leaders, new innovations are either embraced or discarded (Atkin et al, 2015; Sahim, 2006). Opinion leaders impact an audience via personal contact while going between personnel such as change agents and gatekeepers also add to the process of diffusion (Chaudhry and Irshad, 2012; Hansen and Hansen, 2005). Furthermore, Roger goes on to state that there are five categories for adapters that include: innovators, early adopters, early majority, late majority, and laggards. Interestingly, the five categories follow a standard deviation curve where very little innovators adopt at the beginning (2.5%), early adopters constituting 13.5%, the early majority constituting 34%, the late majority another 34%, finally the laggards at 16%. (Sahim, 2006; Chaudhry and Irshad, 2012; Hansen and Hansen, 2005).

Technology Acceptance Model (TAM)

The model the researcher used to explain why people revisit websites are based on the advancements of TAM in "traditional" information systems, and it is complemented by recent theoretical and empirical findings on Internet use (Heijden, 2000). The technology acceptance model (TAM) is a data systems theory that models how manipulators have embraced and employed technology (Davis et al, 1989). As an outcome of these innovative technologies such as personal computers being multifaceted and an element of ambiguity exists in the minds of decision makers with respect to the successful adoption of them, people form insouciances and purposes toward trying to engross to use the new technology prior to introductory efforts directed at using it (Bagozzi, Davis & Warshaw 1992). The scholars went on to say that attitudes towards practice and intentions to use may be ill-formed or deprived of principle or else may only occur once preliminary strivings to learn to use the technology progress, thus, actual usage may not be a direct or instant result of such attitudes and intentions (Heijden, 2000). The model further points out that when users are offered new technology, various factors impact on their decision about how and the time they will choose to embrace it, notably perceived usefulness (PU) which was defined by Davis (1989) as "the degree to which a person believes that using a particular system would enhance his or her job performance" and perceived ease-of-use (PEOU) which the scholar defined as "the degree to which a person believes that using a particular system would be free from effort". According to its theoretical postulates, system usage is determined by individual behavioral intentions

to use a website; these are jointly determined by individual attitudes toward website use and perceived usefulness of the websites (Davis, 1993). Several empirical studies demonstrated that perceived usefulness, but not perceived ease of use, was positively related to behavioral intentions to use ICTs (Chau, 1996; Chau and Hu, 2002), and to its actual usage (Todd et al, 1992; Gefen and Keil, 1998; Szajna, 1996). However, some studies found that both perceived usefulness and perceived ease of use are positively related to behavioural intentions to use of ICTs (Davis and Venkatesh, 2000) and to system usage (Davis et al, 1995; Cragg et al, 1997) Consequently, perceived usefulness is the major determinant of individual intentions to use information and communication technologies, while perceived ease of use is a secondary determinant. Overall, the TAM is the most suitable model to use when anticipating the use of various mediums of ICT behavior (Hong et al, 2006). Chau and Hu (2002) also combined the factor of peer influence with the Technology Acceptance Model. According to a study by Franco and Roldan (2005) the relationship between perceived usefulness and behavioral intention was strong among goal-directed users. Chau and Hu (2001) compared the Technology Acceptance Model (TAM), the Theory of Planned Behaviour (TPB), and a decomposed TPB model that is potentially adequate in the targeted healthcare professional setting in Hong Kong. The results indicated that TAM was superior to TPB in explaining the physicians' intention to use telemedicine technology. The study conducted by Sun and Zhang (2003) found voluntariness can be a factor in determining the behavioral intention to use. TAM has been a widely used the model to help understand and explain user behavior in an information system.

METHODOLOGY

In this study positivism philosophy was employed since it undertakes the character of an objective analyst, making separate clarifications about the respondents from whom data is being acquired (Gray, 2014; Polgar and Thomas, 2013). Additionally, this research philosophy uses a highly structured methodology to enable duplication as well as calculable annotations and is based on knowledge attained from 'positive' verification of observable experience rather than introspection or intuition. Furthermore, positivism comprises of data collection and conversion into its numerical form for statistical calculations to be conducted (Adhikari, 2013). This method also turns to prevent bias on the researcher's part as it uses a quantitative method which is employed to bring out the relationship that existed between the use of ICT and its significance in the growth and development of the small enterprise sector. In addition, a research design was adopted and is an overall plan focused at attaining responses to queries under study and handling technical hitches encountered during the study (Pilot and Hungler, 1993; Blakstad, 2013). Data were collected using questionnaires and focus groups (Bryman and Bell, 2003; Marchington and Wilkinson, 2005). This study used regression analysis, linear programming and factor analysis (Wegner, 1959; Sakar et al, 2011). This involved the use of central tendency such as mean, median and mode (Manikandon, 2011; Sakar et al, 2011). Likewise, fractile was used and involves quartiles, deciles, and percentiles (Sen and Chaudruri, 2010; Sakar et al, 2011). Furthermore, the study used standard deviation (Browne, 2010; Sakar et al, 2011) and null hypothesis and significance (Halder, 2013; Sakar et al, 2011). In addition, the study used also square test and t-test (Sakar et al, 2011). This was consolidated by the use of analysis and evaluation.

Data Analysis and Presentation

Age

In this study, 80% of the respondents were below 40 years indicating the participation of youths in the small business sector. The age group of 20-30years accounted for the greater composition of the respondents as it had 44% followed by the age group 31-40years which had 36% representation.

Education

Education wise the majority of the respondents (41%) attained only secondary education and those with degrees were 33% of the total respondents. Respondents with Msc were only 5% while none were recorded for Ph.D.

Type of Business

The services sector had the highest number of small businesses recorded in this study with a 67% representation while the retail sector had 20% representation. Services sector included businesses like hair saloon, software development, catering, and real estate management among other businesses.

Years of Business Operation

In this study, 92% of the respondents had less than 10years in business while those with less than 5 years accounted for the majority as they had a 56% representation. None of the businesses had above 15 years in business thus supporting the findings under age demographics which suggested the participation of youths in small businesses more than the elderly.

Use of ICT in Business

All respondents confirmed to be using ICT in their businesses although it is being used at different levels and for various reasons.

Factor Analysis

The author sort to establish the causal factor of the way respondents answered questionnaires and thus adopted the Kaiser stopping method. This method considers factors with an Eigen Value above 1 to be the main determinants of responses. From this analysis, it is clear that type of business was the major determent factor to the way farmers responded to the questionnaires as it had the highest Eigen-value of 1.933 as compared to gender, age, education and years in business which had Eigen scores of 1.25, 1.6 and 1.3 respectively. After being figured to be the main determinant in this study experience in the type of business was then used to carry out the analysis of variance (ANOVA) test and the table below Show the ANOVA test values.

Analysis of Variance

The researcher sought to establish the perceptions of respondents on various issues which could not be answered by a simple yes or no hence resorted to using a Likert scale. The Likert scales used was as follows: 1=strongly agree, 2=agree, 3=neutral, 4=disagree and 5= strongly disagree. Therefore any means below 3 indicated agreement, a mean equal to 3 indicated neutral while a mean above 3 meant disagreement.

Table 1: Analysis of Variance

	Mean	Std Dev	ANOVA p. Value
ICT significant to the development of SME sector	1.4	0.61	0.07
ICT helps identify customer needs	2.4	0.87	0.23
ICT helps anticipate customer needs	2.8	1.24	0.13
ICT helps satisfy customer needs	3	1.32	0.02
ICT creates opportunities for SMEs	2.6	1.0	0.07
ICT gives a firm competitive edge	2.81	1.13	0.6

Major Findings

ICT is Significant to the Development of the Small Business Sector

The findings from the study show that information and communication technologies are of essence in the development of the small business sector as they contribute to various activities that lead to the betterment of the small business sector and this is supported by Yusuf (2014) who states that ICTs is significant to small businesses because its introduction results in growth and development of the small business as it speeds up communication processes and the flow of information within an organization. Even, Yin (2005) notes that in China small businesses grew as a result of embracing ICT. Whilst, Skoko et al (2008) suggest that the introduction of ICT stimulated growth in the registered small businesses in China. Likewise, in Italy it has also been shown that SMEs' use different types of ICTs' for different purposes and these are generally general-user, production oriented and market-oriented ICTs. In this case, it is reported that production-oriented ICTs have managed to boost the production sector to 69% in Italy, a higher percentage than that of 42% the prior the prioritization of ICT in the country (Lucchetti et al 2001). Furthermore, In the U.S it was established that ICT has been enhancing growth and performance of small businesses sector resulting in high-profit returns due to efficiencies brought about by embrace of

ICT (Council of Economic Advisors, 2001). Whist, a study conducted in Namibia shows that ICT is being used by the small business sector to market products and services as noted by Masenge (2014). As indicated elsewhere in the study, ICTs can improve efficiency and increase productivity by different ways including reducing transaction costs, improving efficiency in resource allocation (Akaba et al, 2014; Awuah and Amal, 2011). It is clear from the study that production-integrating ICT technologies are significant to small business sector because this type of technology is linked to the production processes and conducted within the firm or base on the inter-firm relationships (Pillay, 2016; Lucchetti and Sterlacchini, 2004). In this case, the applications and tools employed comprise of Enterprise Resource Planning (ERP), billing systems, Customer Relationship Management (CRM), and computer-aided design and these systems allow information to be shared amongst firms in the small business sector (Alijawarneh and Al-Omari, 2018). Although they are expensive to acquire they need appropriate technological knowledge skills to carry them (Dibon, 2018). The benefit of possessing these is that product innovation and faster service delivery as noted by Corso et al (2001). Something that is necessary for the small business sector in Zimbabwe as this will enable them to compete with other companies in and outside Zimbabwe.

ICT is an Effective Marketing Tool

The findings from the study show that a greater number of respondents agree that ICT is an effective marketing tool for the small business sector as it allows firms to anticipate, identify and satisfy customer needs (CIM). This is also supported by Lucchetti and Sterlachini (2001) who states that market-oriented small businesses use the internet for displaying and advertising the firm's products and services thereby providing wider market coverage. More so, Van Beveren (2002) and Yusuf (2014), point out that the various uses of ICT by the small business sector mainly social media platforms are enhancing their communication with their customers. Furthermore, results from focus groups discussions also show that ICT can assist the small business sector to customize their products and services for customer satisfaction in the process granting a competitive edge over bigger firms. For example, in countries like Namibia, small business sector has managed to penetrate the Namibian market using ICT as the main penetration tool over other marketing strategies (Masenge, 2014). Likewise, Rwanda has managed to grow its economy and its small business just by embracing ICT and this is supported by a study which was conducted in Rwanda which shows that ICT is effective in reaching out to customers. For example, the use of Search Engine Optimisation (SEO) and digital marketing are very effective in reaching out to customers as noted by Van Beveren (2002) and Yusuf (2013). It is important that small business sector in Zimbabwe should be market-oriented ICT and this form of information and communication technology makes the firm available on the global market using the internet as its tool (Berisha-Shaqiri, 2015). Market-oriented ICT uses the internet for display, and advertisement of the firm's products and services thus it provides a wide coverage on both the local and the global market as noted by Lucchetti and Sterlacchini (2004). Some websites have a platform for placing orders online, that is, the e-commerce functionality and the World Wide Web is an influential platform for marketing products and services at the same time making the enterprise visible on the global market. It can also award the small enterprise sector with an opportunity to conduct business with in the same markets that are monopolized by bigger enterprises hence leading to improvement of the quality of products and services due to exposure to the competitive global market (Glucksman, 2017).

ICTs Ease the Enterprise's Daily Operations and Activities

The results from the study also showed that a greater number of participants agree with the notion that ICT eases the day to day operations of a business as noted by Ashrafi and Murtaza (2008) who also suggest that the use of ICT by small business sector helps in communication, electronically capturing, processing and transmitting information. Furthermore, Lucchetti and Sterlachini (2001) suggest that information and communication technology also provides a faster method of compiling, analyzing and distributing data collected daily for the betterment and easy execution of business activities daily. Additionally, Skoko et al (2008) state that information and communication technology has become the main catalyst and enabler of organizational change, especially at a time the business world is becoming very dynamic and byzantine (Yin, 2005); Skoko et al, 2008).

ICT Provides a Platform for Futuristic Planning

The findings also show that ICT provides a platform for futuristic planning through intra and inter-organizational communication and this form of communication as argued by Corso et al (2001) helps production oriented ICT companies to support cross-boundary communication and knowledge sharing as is the case with small businesses in Namibia. This is also helping as claimed by the study done in Namibia in improving supply chain systems as a result of the implementation of information and communication technology in the small business sector (Masenge, 2014).

Internal and External Barriers

The networking problem in Zimbabwe generally stems from obsolete policies and a negative regulatory framework by the Government because telecommunications has been considered as a public (Government) property like in many developing countries (Nhede, 2016; www.techzim.ac.zw). TelOne (a government-owned Telecommunications Company) is responsible for telecommunication services in Zimbabwe. Government-owned telecommunication operations are usually inefficient, therefore commercial service providers are not allowed to provide value-added services (www.telone.ac.zw; www.techzim.ac.zw; Adam, 1996). As argued by Zano et al (2008), the majority of African governments still require longer times to understand the value networking offers to their competitiveness and its abilities to foster positive changes in quality of life, let alone, the business world. Issues such as cultural erosion, pornography, privacy, security, loss of revenue are often amplified by government-controlled media as opposed to promoting empowerment via networks and what it can achieve (www.techzim.co.zw). Furthermore, Eadie (2001) and Zano et al (2008) state that the major obstacle hampering the development and extension of information systems was lack of funds and absence of the engineering infrastructure needed for the development and production of spares and components and Zimbabwe is no exception. Foreign exchange restrictions are effected by adverse foreign exchange transactions (Garcia, 2017; Zano et al, 2008). The high cost of ICT facilities or information infrastructure

has been reported as one of the factors that influence provision and use of ICT services and poverty has led to underfunding which has continued to inhibit the rapid development of telecommunications in the country (Adomi 2006; Zano et al, 2008). This situation has worsened in recent years because of the large-scale devaluation of the national currency, inflation and the shortage of foreign exchange with which to prosecute many projects (Zano et al, 2008; Garcia, 2017). Additionally, most of the SMEs are owner managed and the owner makes most of the decisions concerning the running of the business and it means that the owner/manager decisions take preference in the business; in the event that the owner/manager is not interested in a matter it will not be implemented (Spieker and Murray, 2008; Akaba et al, 2014; Awuah and Amal, 2011). Unfortunately the owner/manager's limitations become the business' limitations and this can be considered as a strategic level problem because decisions are being done at a strategic level where the owner/manager has a greater say (Akaba et al, 2014; Awuah and Amal, 2011; Spieker and Murray, 2008; Kapurubandara et al, 2006).

RECOMMENDATIONS

The Zimbabwean government is encouraged to cultivate a culture of information and communication used by its people through the provision of ICT infrastructure as most areas especially rural areas do not have access to ICT facilities as with the case with Malawi's national policy. In this case, Malawi realized that Information and Communications Technology (ICT) is essential for the sustainable development of Malawi, considering the profound impact it has at both economic and social levels all over the world. Thus, the ICT Policy was aimed at developing the ICT sector, promoting the development and use of ICT in all sectors including small business sector by so doing enhancing universal access to ICT services to achieve widespread socio-economic development (www.macra.org.mw). Something that Zimbabwe cannot fail to do given their existing infrastructure. In this case, the policy would need to be developed through a consultative process involving the private sector, government ministries and departments, the academia, development partners, non-governmental organizations, and other stakeholders and implementation of this policy will require concerted team efforts of all partners concerned who will then work with the government in order to achieve this goal of establishing ICT infrastructure (www.macra.org.mw). It is important to also note that the ICT Policy will be envisioned at supporting the national goal of wealth creation and reduction of poverty through sustainable economic growth and infrastructure development which is the sole aim of promoting the small business sector. In this case, the government will be expected to provide direction for systematic ICT program development, implementation and monitoring of this policy and this should be extended even to rural areas and vulnerable people (www.techzim.co.zw). In addition, the government should provide subsidies and tax rebates on ICT related equipment for the benefit of users of ICT such as small businesses. Likewise, the government should also take the leading role in providing all its services through ICT platforms such as e-government services and lastly set up policies that favor the adoption and use of ICT across the spectrum. (www.techzim.co.com). Furthermore, small business sector and the Zimbabwean people should have some basic knowledge on ICT in order to aid the adaptation of information and communication technology and its full utilization for the development of the small business sector. Additionally, the Government of Zimbabwe should offer ICT training and research centers across all provinces that target both the young and the elderly people through both formal and

vocational education and this will encourage the development of home-grown solutions as people become ICT oriented. By providing ICT infrastructure, the public can improve its ICT utilization from being general users to being either market-oriented ICT users or production oriented ICT users thus pushing the small business sector to grow and upgrade so as to meet the new technological demand created by the government. For example, in Brazil, small businesses have the potential to create employment and economic growth as a result of ICT, and this has become the Brazilian government's one of its main policies to promote ICT in the small business sector throughout the country (Duff et al, 2000). The government of Zimbabwe should also recognize and reward ICT advancements by creating an ICT exhibition event something more or less like the agricultural show whose entire focus will be on ICT where both individuals and cooperates exhibit their ICT advancements and inventions. This will bring about motivation and competition to ICT players and therefore positively impact on ICT development, adoption and usage in the small business sector as suggested by Chiradeep et al(2018). Additionally, it is of paramount importance to note that the small business sector should contribute towards the adaptation of ICT by investing and encouraging the use of ICT in their sector because an increase in the use of technology will act as the catalyst for the growth of the sector and Zimbabwean economy at large. This is the case with the likes of China and Rwanda where their governments encouraged the small business sector to quickly adopt the use of ICT in order to easy ways of doing business for the benefit of the people of these respective economies (Lucchetti and Sterlacchini, 2014., Yusuf, 2014). This is part of Roger's Diffusion of Innovation theory which claims that there are three possible approaches in which ICT is embraced into the business world, which is a diffusion approach, an adoption approach and a domestication approach (Pedersen, 2003) and the same will apply to Zimbabwe.

REFERENCES

1. Adeyemi, N. M. (1991) *Issues in the provision of information services to developing countries. African journal of library, archives and information science*, 1(1), 1-12.
2. Akaba, A., Ocloo, C. and Worwui-Brown (2014) *Globalisation and Competitiveness: Challenges of Small of Small and Medium Enterprises (SMEs) in Accra Ghana: International Journal of Business and Social Science*, Vol. 5, No. 4
3. Alam S. & Noor, M. (2009) *ICT Adoption in Small and Medium Enterprises an Empirical Evidence of Services Sectors in Malaysia. International Journal of Business Management.*, 154-158.
4. Ali, S., Rashid, H. and Khan, M., A. (2014) *The Role of Small and Medium Enterprises and Poverty in Pakistan: An Empirical Analysis: Theoretical and Applied Economics: Vol. xxi. No. 4 (593) pp 67-80*
5. Alijawarneh, N. and Al-Oman, Z., S. (2018) *The Role of Enterprise Resource Planning Systems ERP in Improving Customer Relationship Management CRM: An Empirical Study of Safeway Company of Jordan: International Journal of Business and Management: Vol. 13, No. 8: Canadian Center of Science and Education*
6. Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994) *Customer satisfaction, market share, and profitability: Findings from Sweden. The Journal of marketing*, 53-66.

7. Apulu, I., & Ige, E. O. (2011) Are Nigeria SMEs Effectively Utilizing ICT?. *International Journal of Business and Management*, 6(6), 207.
8. Ashrafi, R., & Murtaza, M. (2008) Use and impact of ICT on SMEs in Oman. *Electronic Journal of Information Systems Evaluation*, 11(3).
9. Aiken, D., Hunt, D., S and Lin, C., A. (2015) *Diffusion Theory in the New Media Environment: Toward an Integrated Technology Adoption Model: Mass Communication and Society: Routledge: Taylor & Francis Group*
10. Australia. *Journal of Small Business Management*, 40 (3), 250-253
11. Arugu, L., O. and Chigozie, C., F. (2016) *Information and Communication Technology (ICT) Application in Social and Political System: European Journal of Research in Social Sciences: Vol. 4. No. 1*
12. Awuah, G., B. and Arnal, M. (2011) *Impact of Globalisation: The Ability of Less Developed Countries (LDCs)' Firms to cope with Opportunities and Challenges: European Business Review*, 23 (1), 120-132
13. Bagozzi, R. P., Davis, F. D., & Warshaw, P. R. (1992) *Development and test of a theory of technological learning and usage. Human relations*, 45(7), 659-686.
14. Baldwin R. Jarmin S. & Tang, J. (2001) *The Trend to Smaller Producers in manufacturing in Canada and the US. Statistics Canada working paper 155-170.*
15. Baldwin, J.R. and D. Sabourin (2002) "Impact of the Adoption of Advanced ICTs on Firm Performance in the Canadian Manufacturing Sector", *STI Working Papers 2002/1, OECD, Paris (available at www.oecd.org/sti/).*
16. Barczak, G., Sultan, F., & Hultink, E. J. (2007) *Determinants of IT usage and new product performance. Journal of product innovation management*, 24(6), 600-613.
17. Becta, I. C. T. (2004) *ICT advice for teachers.[Online] <http://www.ictadvice.org.uk/index>.*
18. Beggs, T. A. (2000) *Influences and Barriers to the Adoption of Instructional Technology.*
19. Berisha-Shaqiri, A. (2015) *Impact of Information Technology and Internet in Businesses: Academic Journal of Business, Administration, Law and Social Sciences: Vol. 1, No.1*
20. Bianconi, R.J., Tejani, A.A., Chiu, P., Wallace, D. and McClure, D.R. (2012) *Methods, systems, and computer program products for synchronizing subscriber feature data across multiple domains. U.S. Patent 8,150,394. (pp 381-390). Lismore, NSW: Southern Cross University Press.*
21. Brandt, L. and Zhu, S., C. (2005) *Technology Adoption and Absorption: The Case of Shanghai Firms: semantics Scholar. Org*
22. Browne, R., H. (2001) *Using the Sample range as a basis for calculating sample size in power calculations: The American Statistician*, 55(4), pp 293-298
23. Buhalis D. (2004) *eAirlines: Strategic and Tactical Use Of ICT In The Airline Industry. Information and Management*, 805-825.

24. Buhalis, D. and Law, R. (2008) *Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of e-Tourism research*. *Tourism management*, 29(4), pp.609-623.
25. Chaudhry, S., A. and Irshad, W. (2012) *Opinion Leadership and Its Role in Buyer Decision Making: Academy of Contemporary Research Journal*, VII(1), 7-14: Resource Mentors (Pvt) Ltd
26. Chete, L., N., Adeoti, J., O. and Ogundele, O (n.d) *Industrial Development and Economic Growth in Nigeria: Lessons and Challenges*. ADB Working Paper, wp/08. African Development Bank.
27. Chigunha, R., B., Munyoro, G., Chimbari, F. and Chipoyera, N. (2018) *The Contribution of Contract Farming to Agricultural Development in Zimbabwe: A Case Study of AI Farmers in Mashonaland East Province: Africa Development and Resources Research Institute Journal: E-ISSN 2343-6662. ISSN-L 2343-6662. VOL. 27, No. 7(4), June, 2018, pp18-52.*
28. Chikombingo et al (2017)Chikombingo, M., Munyoro, G and Chimbari, F (2017)*The Motives of Zimbabwean Women Entrepreneurs: A Case Study of Harare: (BEST: IJMITE) SSN (P): 2348-0513, ISSN (E): 2454-471X: Vol. 5, Issue 05, 1-18*
29. Chivasa, S. (2014) *Entrepreneurship culture among SMEs in Zimbabwe: A case of Bulawayo SMEs*. *International Journal of Economics, Commerce and Management*, 2(9).
30. Chivasa, S. (2014) *Entrepreneurship culture among SMEs in Zimbabwe: A case of Bulawayo SMEs*. *International Journal of Economics, Commerce and Management*, 2(9).
31. Chukwuemeka, N. (2014) *Entrepreneurship Development and its Impact on Small Scale Business Enterprises in Developing Countries: A Nigerian Experience: Journal of Entrepreneurship and Organisation Management*
32. Chyau, C. (2005)*Why Should Countries Embed ICT into SME policy?. APDIP e- Note Available at <http://www.apdip.net/apdipenote/4.pdf>*
33. Corso, M., & Gastaldi, L. (2011) *Toward a relevant, reflective and rigorous methodology able to study continuous innovation at affordable resource-consumption levels*. In *12th International CINet Conference, Århus (Denmark), Sep (pp. 11-13)*.
34. Cresswell, J. (2014) *Research design*. Sage Publications.
35. Creswell, J.W. and Creswell, J.D. (2017) *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
36. Davis, F.D. (1993) *User acceptance of information technology: system characteristics, user perceptions and behavioural impacts*, *International Journal of Man–Machine Studies* 38 (3), pp. 475–487.
37. Dede, C. (2000) *Emerging influences of information technology on school curriculum*. *Journal of Curriculum Studies*, 32(2), 281-303.

38. Devarajan, S. (2016) *Three Reasons Why Industrial Policy Fails: Brookings*
39. Dibon, D. (2000) *Technological Innovations in the classroom creating a student-centred classroom*
40. Dicken, P., & Lloyd, P. E. (1990) *Location in space: Theoretical perspectives in economic geography*. Prentice Hall.
41. Drakakis-Smith, D., Bowyer-Bower, T., & Tevera, D. (1995) *Urban poverty and urban agriculture: An overview of the linkages in Harare*. *Habitat International*, 19(2), 183-193.
42. Duff, A. S. (2000) *Information society studies*. Routledge.
43. Eadie, G. M. (2001) *The impact of ICT on schools: Classroom design and curriculum delivery*. Wellington: Samuel Mardson Collegiate School.
44. Fernando, L.L. (2007) *A firm-level analysis of determinants of ICT adoption in Spain*. *Technovation*, 27, 352-366.
45. Fulantelli, G., & Allegra, M. (2003) *Small company attitude towards ICT based solutions: some key-elements to improve it*. *Educational Technology & Society*, 6(1), 45-49.
46. Gandhi, A., Magar, C. and Roberts, R (2013) *How Technology can Drive the Next Wave of Mass Customisation: MacKinsey & Company*
47. Garcia, C., A., C. (2017) *Effects of Capital Controls of Foreign Exchange Liquidity: Monetary and Economic Department: BIS Working papers*
48. Garcia, R., & Calantone, R. (2002) *A critical look at technological innovation typology and innovativeness terminology: a literature review*. *Journal of Product Innovation Management: An International Publication Of The Product Development & Management Association*, 19(2), 110-132.
49. Gibbs, J. L., & Kraemer, K. L. (2004) *A cross-country investigation of the determinants of scope of e-commerce use: an institutional approach*. *Electronic markets*, 14(2), 124-137.
50. Glucksman, M. (2017) *The Rise of Social Media Influencer Marketing on Lifestyle Branding: A Case Study of Lucie Fink: Elon Journal of Undergraduate Research in Communities: Vol. 8, No. 2*
51. Government of Zimbabwe. (2007) *The Zimbabwe national ICT policy framework*. Harare: Government printers.
52. Guarino, A., S. (2018) *The Economic Effects of Trade Protectionism: Focus Economics*
53. Gupta, S., & Lehmann, D. R. (1997) *The long-term impact of promotion and advertising on consumer brand choice*. *Journal of Marketing research*, 248-261.
54. Hakansson, H. (2015) *Industrial Technological Development (Routledge Revivals): A Network Approach*. Routledge.
55. Haldar, S., K. (2013) *Statistical and Geostatistical Applications in Geology: Mineral Exploration: Principles and Applications: Elsevier*
56. Hansen, F. and Hansen, M., H. (2005) *Children as Innovators and Opinion Leaders:*
57. Heijden, H., V., D. (2000) *C-Tam: A Revision of the Technology Acceptance Model to explain Website revisits: Research Memorandum*

58. Helmsing, A. H. J., & Kolstee, T. (1993) *Small Enterprises and Changing Policies: Structural Adjustment Financial Policy and Assistance Programmes in Africa*.
59. Herselman, M. E., & Hay, H. R. (2003) *Challenges posed by Information and Communication Technologies (ICT) for South African higher education institutions. Informing Science*, 931-943.
60. Holden, K. and Van Klyton, A. (2016) *Exploring the tensions and incongruities of Internet governance in Africa. Government Information Quarterly*, 33(4), pp.736-745.
61. Hong, S., Thong, J.Y. and Tam, K.Y. (2006) *Understanding continued information technology usage behavior: A comparison of three models in the context of mobile internet. Decision support systems*, 42(3), pp.1819-1834.
62. J. (Eds.) *Handbook on Technologies for Information and Training*. Berlin: Springer Verlag.
63. Jessop, B., Scott, A., J. and Stopper, M., J (1992) *Fordism and Post-Fordism: A Critical Reformulation: in a book: Pathways to Regionalism and Industrial Development: Routledge*
64. Kazi, A. (2009) *Next Generation Construction. ITcon Editorial*, 123-128.
65. Lacchetti, R. and Sterlacchini, A. (2004) *The Adoption of ICT among SMEs: Evidence from an Italian Survey: Small Business Economics: Vol. 23, No. 2, pp 157-168*
66. Lin, J., Y (2014) *Industrial Policy Revisited: A New Structural Economics Perspective: Dans Revue Deconomie du Developpement: HSO1 (Vol. 22) pp 51-70*
67. Lin, M. and Yuan, Q. (2015) *The Evolution of Information and Communication Technology in Public Administration: Public Administration and Development: Vol. 35. pp140-151: Wiley Online*
68. Loveman, G., & Sengenberger, W. (1991) *The re-emergence of small-scale production: an international comparison. Small business economics*, 3(1), 1-37.
69. Lucchetti R. & Sterlacchini, A. (2004) *The Adoption of UCT among SMEs: Evidence from an Italian Survey, Small Business Economics*, 151-168.
70. Ma, H. (2004) *Toward Global Competitive Advantage: Creation, Competition, Cooperation and Cogtion: Management Decision: Emerald Group Publishing Limited: Vol. 42, Issue. 7, pp 907-924*
71. Manikandari, S. (2011) *Measures of Central Tendency: Median and Mode: Journal of Pharmacology and Pharmacotherapeutics*
72. Manuere, F., Gwangwava, E., & Gutu, K. (2012) *Barriers to the adoption of ICT by SMEs in Zimbabwe: an exploratory study in Chinhoyi District. Interdisciplinary journal of contemporary research in business*, 4(6), 1142-1156.
73. Martin, L. M., & Matlay, H. (2001) "Blanket" approaches to promoting ICT in small firms: some lessons from the DTI ladder adoption model in the UK. *Internet research*, 11(5), 399-410.
74. Mattii, P. (2002) *The New Economy: Facts, Impacts and Policies. Information Economics and Policy*, 133-144.

75. Mehrrens, J., P. B. Cragg and A. M. Mills (2001) "A Model of Internet Adoption by SMEs", *Information & Management*, Vol.39, pp.165-176.
76. Mokryi, V. (1997) *Problemy Ukraïnców w Polsce po wysiedleńczej akcji "Wiśła" 1947 roku (Vol. 1)*. Wydawn. "Szwajpolt Fiol".
77. Mumbengegwi, C. (1993) *Structural adjustment and small-scale enterprise development in Zimbabwe'. Small Enterprises and Changing Policies: Structural Adjustment, Financial Policy and Assistance Programmes in Africa*.
78. Munyoro, G., Chiinze, B and Munyoro Dzapasi, Y. (2016) *The Role of Customs and Excise Duties on Small Enterprises: A Case Study of Women Cross Border Traders: Africa Development and Resources Research Institute Journal:ISSN: 2343-6662: VOL. 25, NO. 10(3)*
79. Munyoro, G., Makota, B and Tanhara, J., R (2016) *The significance of entrepreneurial culture in vocational training centres: A case study of Mupfure vocational training centre: International Journal of Research in Business Management (IMPACT: IJRBM): ISSN(P): 2347-4572; ISSN(E): 2321-886X: Vol. 4, Issue 10, Oct 2016, 55-70*
80. Munyoro, G and Dube, F (2017) *The Significance of Indigenous Banks to Economic Development in Zimbabwe: A Case Study of Harare Metropolitan: ISSN 2224-5758 (Paper) ISSN 2224-896X (Online): Vol.7, March, No.3, 2017: Information and Knowledge Management: www.iiste.org*
81. Munyoro, G and Gumisiro, C (2017) *The Significance of Entrepreneurial Culture in the Security Sector: A Case Study of Zimbabwe Prisons and Correctional Service: IMPACT: International Journal of Research in Business Management (IMPACT: IJRBM) ISSN(P): 2347-4572; ISSN(E): 2321-886X: Vol. 5, Issue 5, 15-28*
82. Munyoro, G., Chikombingo, M and Nyandoro, Z (2016) *The Motives of Zimbabwean Entrepreneurs: A Case Study of Harare: Africa Development and Resources Research Institute Journal: ISSN: 2343-6662 ISSN-L: 2343-6662 VOL. 25, No. 7(3)*
83. Munyoro, G., Langton, I. and Chenyika, W. (2017) *The Role of Entrepreneurship in Sustaining Non Governmental Organizations' Operations in Zimbabwe: A Case Study of Harare*.
84. Munyoro, G., Chigunha, B, R., Kaseke, T. and Kandewo, G., I. (2018) *An Examination of the Significance of Land Reform programme in Zimbabwe: A Case Study of Mashonaland East Province: Africa Development and Resources Research Institute Journal: ISSN 2343-6891 ISSN-L 2343-6891 VOL. 15, No. 8(3), 27-67*
85. Murdoch, J. (2000) *Networks—a new paradigm of rural development?. Journal of rural studies, 16(4), 407-419.*
86. Murray, M. (2018) *Small Business: A Guide to the Manufacturing Production Process: Supply Chain Management: Dotdash Publishing*
87. Newfarmer, R. and Pierola, M.D. (2015) *Trade in Zimbabwe: Changing incentives to enhance competitiveness. The World Bank.non-R&D-intensive industries? An application to export performance, Research of Australian and Croatian SMEs, Managing Global Transitions 4 (1): 25–40*

88. Nhede, N., T. (2016) *The Social Security Policy of the Government of Zimbabwe: A Policy Analysis Overview*: University of Pretoria
89. Nkonoki, E. (2010) *What are the Factors Limiting the Success and / or growth of Small Business in Tanzania? –An Empirical Study on Small Business Growth*: ARCADA
90. Nyamwanza, T. (2014) *Strategy Implementation for Survival and Growth among Small to Medium Sized Enterprises (SMEs) in Zimbabwe*:ir.msu.ac.zw
91. Nunberg, G. (2012) *The advent of the internet*.
92. Nureni, Y. (2014) *Information Communication Technology (ICT)*:
93. Nyamwanza, T. (2014) *Strategy Implementation for Survival and Growth among Small to Medium Sized Enterprises (SMEs) in Zimbabwe*:ir.msu.ac.zw
94. Oberhauser, A. M. (1990) *Social and spatial patterns under Fordism and flexible accumulation*. *Antipode*, 22(3), 211-232.
95. Pillay, P. (2016) *Barriers to Information and Communication Technology (ICT), Adoption and Use amongst SMEs, A study of the South African Manufacturing Sector*: Wits Business School
96. Preece, J., Rogers, Y. and Sharp, H. (2015) *Interaction design: beyond human-computer interaction*. John Wiley & Sons.
97. Ramsden, P. (ed) (1988) *Improving Learning: New Perspectives*: London: Kogan Page Limited
98. Rasmussen, E. M. (1992) *Clustering algorithms. Information retrieval: data structures & algorithms*, 419,
99. Reeg, C. (2013) *Micro, Small and Medium Enterprise Upgrading in Low and Middle Income Countries*: Deutsches Institute
100. Richard, J. P. (2003) *Time-delay systems: an overview of some recent advances and open problems*. *automatica*, 39(10), 1667-1694.
101. Sahin, I. (2006) *Detailed Review of Rodgers' Diffusion of Innovations Theory and Educational Technology –Related Studies Based on Rodgers' Theory*: *The Turkish Online Journal of Educational Technology*
102. Sakar, E., Keskin, S. and Unver, H. (2011) *Using Factor Analysis Scores in Multiple Linear Regression Model for Prediction of Kernel Weight in Anker Walnut*: *Journal of Animal and Plant Sciences* 21(2)
103. Schneider, G. (2002) *Electronic Commerce 3rd edition* - Thomson
104. Schoepp, K. (2005) *Barriers to technology integration in a technology-rich environment. Learning and teaching in higher education: Gulf perspectives*, 2(1), 1-24.
105. Sen, B. and Chaudhuri, P. (2010) *Mahalanobis's Fractile Graphs: Some History and New Developments*:

- 106.R., Shiel, H. et al. (2003) *Understanding the implications of ICT adoption: Insights from SMEs. Logistics information management*, vol. 16 (5),pp.312-326.
- 107.Skoko, H., Ceric, A., & Huang, C. Y. (2008) *ICT adoption model of Chinese SMEs*
- 108.Skoko, H., Krivokapić-Skoko, B., Škare, M. and Cerić, A. (2006) *ICT Adoption Policy*
- 109.Spieker, A., C. and Murray, A., S. (2008) *Management Controlled Firms: A Historical Perspective of Ownership Concentration in the US East Asia and the EU: Journal of International Businesses and Law, Vol. 7, Issue. 1*
- 110.. Storey, D. (1994). (1994) *Understanding the Small Business Sector. Routledge, New.*
- 111.Uribe-Echevarria, F. (1991) *Small-scale manufacturing and regional industrialization. ISS Working Paper Series/General Series, 116, 1-54.*
- 112.Van Beveren, J. & Thomson, H. (2002) *Global Perspective: The Use of Electronic Commerce by SMEs in Victoria,*
- 113.Van Beveren, J. (2002a) *The adoption of IT and the use of the Internet by SME's in Australia. p. 1-17*
- 114.Ward, A. C., & Sobek II, D. K. (2014) *Lean product and process development. Lean Enterprise Institute.*
- 115.Wegner, H., M. (1959) *Linear Programming and Regression Analysis: Journal of the American Statistical Association, 54 (285)*
- 116.Yin, R. K. (2005) *Case Study Research: Design and Methods. Sage*
- 117.Yusuf, M., Adams, C., & Dingley, K. (2014) *A novel framework of e-participation. In Proceedings of the 14th European Conference on eGovernment (p. 363).*
- 118.Zino, C., Munyoka, W., Gombiro, G., Chengetanayi, S., Hove, S. and Mauchi, F. (2008) *Factors affecting the Future of Information and Communication Technologies (ICT) in Zimbabwe: Journal of Sustainable Development in Africa: Vol. 10, No. 2: Clarion University of Pennsylvania, USA*
- 119.www.macra.org.mw
- 120.www.telone.co.zw
- 121.www.techzim.co.zw