International Journal of Business Strategy and Social Sciences
2022 Vol. 5, No. 1, pp. 1-11.
ISSN: 2771-5566
DOI: 10.18488/171.v5i1.2986

A QUALITATIVE STUDY ON BARRIERS TO E-COMMERCE TECHNOLOGIES UPTAKE BY INFORMAL MANUFACTURING MICRO AND SMALL ENTERPRISES IN HARARE

Tawanda Prosper Mushayavanhu[1+]
Joshua Simuka[2]

[1,2]*Technopreneurship Development Centre, Harare Institute of Technology, Harare, Zimbabwe.*
Email: tmushayavanhu@hit.ac.zw Tel: +263773048073
Email: jsimuka@hit.ac.zw Tel: +242741422-36

(+ Corresponding author)

Article History
Received: 15 February 2022
Revised: 1 April 2022
Accepted: 18 April 2022
Published: 6 May 2022

Keywords
E-commerce
Barriers
MSEs
Customer relationship management
Information communication technologies
Harare
Zimbabwe.

JEL Classification:
M - Business Administration and Business Economics
• Marketing
• Accounting
• Personnel Economics.

ABSTRACT

This study focused on finding out the major barriers inhibiting the uptake of e-commerce by manufacturing Micro and Small Enterprises (MSEs) in Harare, Zimbabwe. E-commerce is one of the major forces to business success, hence small businesses should implement e-commerce systems so as to compete with their bigger counterparts. It has the prospective to increase productivity and effectiveness in many facets of the business operations. Several developing countries across the globe have since started to put critical attention on e-commerce. However, the majority of MSEs in developing nations are still oblivious of the importance of e-commerce in enhancing their business processes, improving their customer base, retaining existing customers and ensuring better customer relationship management (CRM). The sample of the study consisted of 10 participants from metal fabricators and furniture manufacturers operating at Mbare-Magaba area and Glenview Area 8 Home Industry Complex. Data was collected using semi structured in-depth interview questions and data was analysed using content analysis. The findings show that informal MSEs face several barriers that include: high cost of Information Communication Technologies (ICTs) equipment and gadgets, incompatibility with business operations, lack of ICTs infrastructure support by the government, accessibility challenges, lack of education and awareness about e-commerce and cultural and trust issues.

Contribution/Originality: This study contributes to the academic literature and discussions on the various factors inhibiting e-commerce uptake by micro and small enterprises that are operating in the shadow economy. It provides empirical evidence from the Zimbabwean context. Practical recommendations are suggested for improving e-commerce adoption in business by informal manufacturing MSEs.

1. INTRODUCTION

The internet revolution has reinforced many companies' internal operations that include logistics, procurement, human resources management, information and data management, communications and facilitating the flow of products between businesses and consumers, for example marketing, ordering, payment, delivery, and searching for suppliers (McIvor & Humphreys, 2004). Electronic commerce adoption offers a great opportunity to MSEs to obtain greater global access to potential customers and reduce transaction costs, providing substantial benefits through improving efficiency and generate revenues, increasing productivity and customization of products and services, enabling better information exchange and management. Limited research has shown a slow embracing of e-commerce by informal manufacturing MSEs in Harare, Zimbabwe. A few of these small companies have made slow progress in the use of Internet for business efficiency and they have only developed websites with outdated and

static information and the firm's goods and services. Informal manufacturing MSEs face several obstacles in embracing and exploit the Internet, particularly electronic commerce for internal and external business operations. Some of the challenges relates to limited resources and good technology infrastructure, the scale and affordability of information technology, as well as the facility of implementation within rapidly growing and changing organizations (Raisinghani et al., 2005). Limited research has been conducted on the barriers that the informal manufacturing MSEs in Zimbabwe encounter in adopting electronic commerce technologies in their businesses. Therefore, this research seeks out to discover the obstacles to uptake of electronic commerce technologies by informal metal fabricators and furniture manufacturers in Harare the capital city. Numerous scholars have recognised many inhibitors affecting SMEs in their quest to embrace and blend in electronic commerce applications business operations (MacGregor & Vrazalic, 2005).

2. LITERATURE REVIEW

2.1. Micro and Small Enterprise Definition

International Labour Organization (2017) took the perspective of number of employees to define MSEs as "firms with less than 10 or 50 workers and medium-sized enterprises as those with less than 100 or 250 workers." Using the World Bank Enterprise Survey, Williams and Kedir (2017) defined micro enterprises as "businesses with less than five workers." The European Union has defined micro and small business as "enterprises that employ at most 250 workers" (Stokes & Wilson, 2010). The description is based on headcounts, value of assets and revenue as guiding standards. The Zimbabwe Small Enterprises Development Corporation Amendment of 2011 defines micro enterprises to include entrepreneurs with without any employees or enterprises with a maximum of 5 employees, small enterprises with 6 to 30 or 40 employees subject to the sector and medium sized enterprises with 31 to 75 employees.

2.2. E-Commerce Definition

Mahadevan (2000) defined e-commerce as "a subset of e-business that involves the purchasing, selling, and exchanging of goods and services with business partners and buyers over computer networks". Likewise, Batani, Denhere, and Mawere (2015) defined e-commerce as the exchange of goods and or services done through the computer networks for instance the internet. Furthermore, Turban, King, Lee, and Viehland (2004) describe e-commerce as a procedure that is concerned with purchasing, marketing, transferring, or trading goods and services over computer networks, mainly the Internet. The four major types of e-commerce are Customer to Customer (C2C), Business to Customer (B2C), Business to Business (B2B) and Business Government (B2G).

2.3. Types of E-Commerce

The four types of e-commerce are grouped by Chaffey, Ellis-Chadwic, Mayer, and Johnston (2009) as follows:

1. Customer to Customer (C2C): It takes place when customers transact directly among themselves over the Internet.
2. Business to Customer (B2C): It occurs when customers buy goods and or services using e-payments systems. The goods or services are then delivered online or via traditional distribution channels.
3. Business to Business (B2B): Chong, Shafaghi, and Tan (2011) state that business to business e-commerce occurs when two or more businesses trade goods and services over the over the computer networks or the Internet.
4. Business to Government (B2G): It happens when the business entities trade and exchange information with the government over the Internet.

2.4. Benefits of Adopting E-Commerce

E-commerce has brought new opportunities as well as some threats for business organisations Boateng and Hinson (2007). In addition, April (2007) states that the uptake of e-commerce in business does not only have influence on marketing, but as well give advantages of retaining customers online. The use of internet in business also improves brand affiliation and company reputation (Ibid). It also offers many advantages to the business organisation such as easy online customer retention, more difficult with traditional online activities, and that the Internet enhances brand relationships and corporate reputations (Van, Van, Ball, & Millen, 2003).

Excellent adoption of e-commerce by business enterprises has a significant impact to business expansion and growth (Harindranath, Dyerson, & Barnes, 2008). Similarly, MacGregor and Kartiwi (2010) highlighted that e-commerce enables buying and selling online from any place and it offers convenience to customer. Also, Saffu, Walker, and Hinson (2008) claimed that e-commerce does not have geographical limitations or demarcations and customers have opportunities to choose from a variety of suppliers and distributors of goods and services. Information regarding goods and services is extensively obtainable on the Internet and customers obtain details about prices, types and availability of goods and services. In addition, high competition through e-commerce adoption results in reduced prices of goods and services as the marketplace is open and this is an advantage to customers (Turban et al., 2008). The decrease in business operational costs through disintermediation also results in reduction of goods and services. E-commerce offers advantages to small business through improved customer services and flexibility in information exchange between business associates, staff and clients (Inusa, 2006).

2.5. Adoption of Information Communication Technologies (ICT) in Small Firms

The "adoption ladder approach" has been used to explain the ICT adoption process the United Kingdom government's Department of Trade and Industry (DTI) to ensure a better understanding of the adoption of ICT and e-commerce by existing small firms (Martin & Harry, 2001). Figure 1 shows a diagram of the ICT adoption approach.

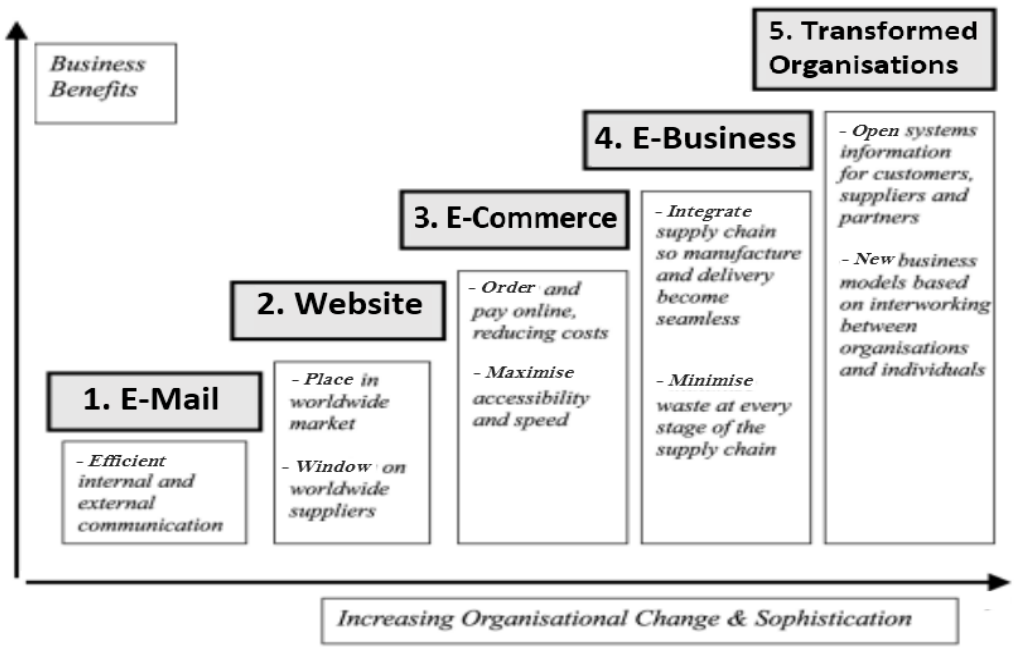

Figure 1. United Kingdom department of trade and industry (DTI) E-commerce adoption ladder approach.
Source: Martin and Harry (2001) adapted from Cisco-led information age partnership study on e-commerce in small business.

ICT facilitates SMEs to break down information and knowledge into a digital form and then transfer it to anyplace all over the globe. It has also speeded up the rate of globalisation. Therefore, to compete with their bigger counterparts, small firms require a robust ICT and e-commerce literate skills that helps to transform and adjust

swiftly to change. The ICTs and e-commerce usage ranges from the simple technology such as emails to more innovative technologies such as information processing systems.

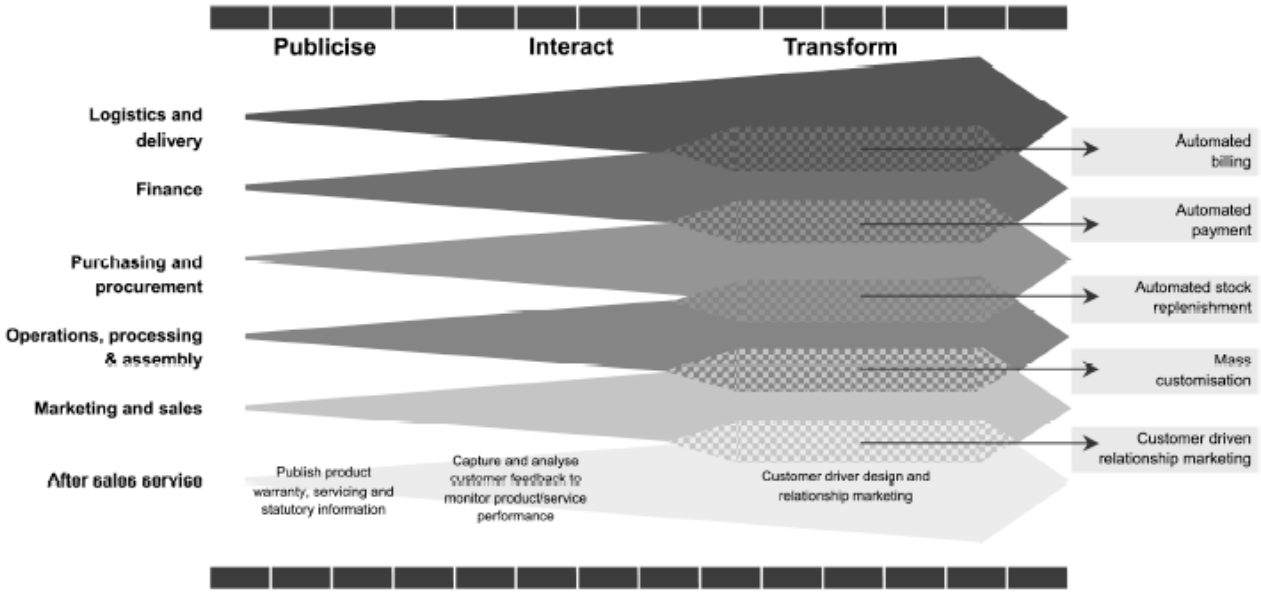

Figure 2. The publicise, interact and transform (PIT) adoption model of ICT by small firms.

Source: Foley and Ram (2002).

The Figure 2 illustrates the diverse ways in which small enterprises can use ICTs to their advantage and on improving access to services and products by customers. Foley and Ram (2002) developed a model with six areas in which ICTs adoption pays a monumental role in business. The areas are: after sales service, marketing and sales, operations, processing and assembly, purchasing and procurement, finance and finally logistics and delivery. Small businesses, through uptake of e-commerce and ICTs can drive customer relationship marketing, mass customization, automated stock replenishment, automated payment and automated billing.

The informal manufacturing enterprises can adopt the above framework in order to:

i. To Publish

This refers to using ICT tools that include website for disseminating information about the products/services and company contact information.

ii. To Interact

This involves the interaction between the firm and its dealers, clients and other key participants via computerised communication systems that are more innovative than the basic ICTs and e-commerce tools like sending e-mails, e-payments and electronic supply chain platforms.

iii. To Transform

This relates to altering the way the business activities are undertaken through application of ICTS and e-commerce in business.

2.6. Barrier to E-Commerce Uptake by MSEs in Less Developed Countries (LDCs)

Some research has been done to investigate the impediments encountered by small businesses in developing countries in respect of e-commerce and Internet adoption. Trust and security have to a greater extent hindered the implementation of Internet technologies and development of e-commerce applications in third world countries.

Chiemeke and Evwiekpaefe (2011) stated that in online environment such as e-commerce, immersed in perception of high risk and insecurity, trust is vital component in building economic relationships. Channel knowledge and education were found to be the key obstacles to e-commerce adoption by small businesses (Thulani, Tofara, & Langton, 1970).

Security issues fetters e-commerce growth because of fear of safety risks, where if information is stolen by hackers can lead to monetary loss to the e-commerce adopters and users. Furthermore, smaller businesses are less likely to invest in networks and issues related to security concerns (Love, Irani, Li, Cheng, & Tse, 2001). According to Lawrence and Tar (2010) more reasons why the adoption of e-commerce in developing countries is still low include the following: lack of enabling infrastructure factors such as technology, network availability of Information Communication Technology (ICT) skills, cost of ICT equipment and networks, security and trust factors and poor distribution associated with online purchases.

Fear of fraud and risk of loss has commonly been cited as a significant barrier to Business to Consumer e-commerce, with empirical research findings supporting these assumptions (Tan, Tyler, & Manica, 2007). Likewise, (Kurnia, 2006) said that frustration occurs when the Internet bandwidth is low and completion of transactions takes time.

It was also further noted by Rose, Khoo, and Straub (1999) that e-commerce may offer customers savings in time, in practice, however using the Internet for business purposes may prove to be too time consuming for many users. The reasons for the above statement include: (i) problems in positioning products and or services; (ii) registration measures needed to access services and (iii) making price evaluations.

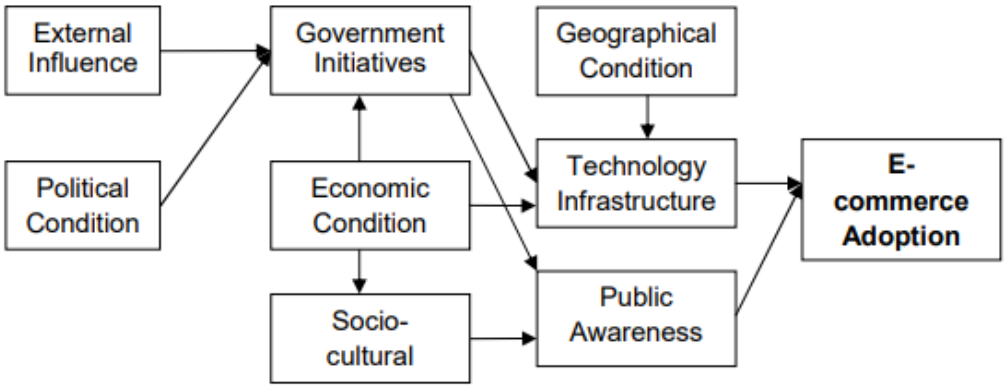

Figure 3. Aspects influencing e-commerce adoption.

Source: Kurnia (2007).

Kurnia (2007) stated that government programmes are crucial in ICT and e-commerce adoption. An unstable political environment in a country affects e-commerce growth because it is less likely for a government to pay attention to e-commerce development. The economic conditions of a country also play a momentous part in e-commerce acceptance by small businesses. For many developing countries, e-commerce relies heavily on relatively expensive infrastructure (Kurnia, 2007). Furthermore, Alghamdi, Drew, and Al-Ghaith (2011) highlighted that obstructions to e-commerce uptake include technical challenges, cultural and business issues. A study conducted by Alqahtani, Al-Badi, and Mayhew (2012) in Saudi Arabia found that trust, fraud, perceived benefits, government e-preparedness and change resistance were the key barriers to e-commerce adoption. In Jordan, Halaweh (2011) established that barrier to e-commerce uptake were security, human, company and operational factors.

Less developed countries should solve barrierds, for instance, lack of e-commerce assimilation, absence of uncomplicated computerisation, inadequate management abilities and outdated business models from the old business age. It is not only crucial to address problems at both the macro and micro levels simultaneously, but it is, in fact, ultimately necessary for survival (Salman, 2004).

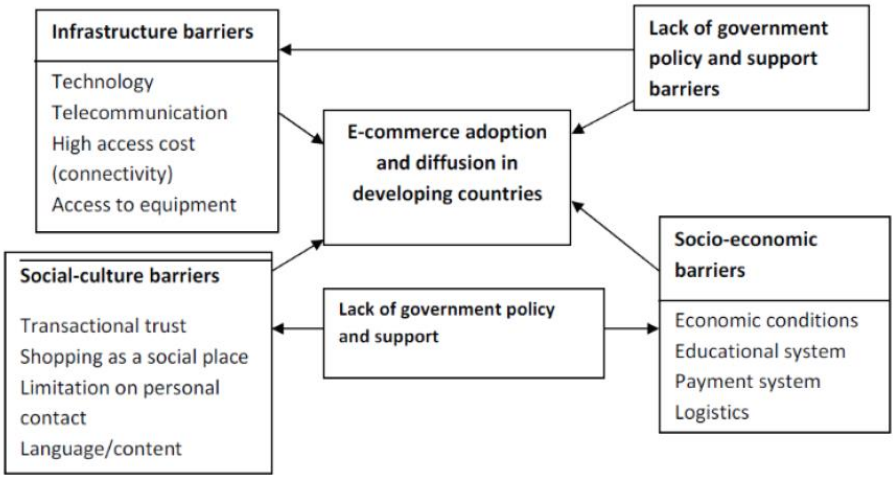

Figure 4. Barriers to E-commerce implementation in developing nations.
Source: Lawrence and Tar (2010).

3. RESEARCH METHODOLOGY

The study used the interpretivism research philosophy and qualitative research design in order to acquire depth of information on the research topic. Convenience sampling technique was used in choosing respondents based on the proximity of manufacturing MSEs. Furthermore, in-depth semi-structured interviews were carried out to obtain data in respect of e-commerce uptake by manufacturing MSEs. The interviews were carried in English and Shona languages and lasted for 10 to 15 minutes. The interview comprised of a series of open-ended questions that would provide a clear understanding on different obstructions to uptake of e-commerce by manufacturing MSEs in Harare.

Table 1. Interviewees' demographics.

Position in business	Gender	Estimated age (years)	Work experience	Sector of the industry	MSEs adoption of e-commerce
Supervisor	Male	30s	9	Manufacturing	NO
Marketer	Female	30s	7	Manufacturing	NO
Manager	Female	50s	6	Manufacturing	NO
Manager	Male	30s	7	Manufacturing	NO
Owner	Male	40s	5	Manufacturing	NO
Manager	Male	40s	4	Manufacturing	NO
Owner and manager	Male	30s	4	Manufacturing	NO
Manager	Male	50s	3	Manufacturing	NO
Supervisor	Male	40s	4	Manufacturing	NO
Manager	Male	40s	6	Manufacturing	NO

Table 1 above presents the demographic information of respondents in this study. It can be inferred that more males than females are involved in informal metal fabrication and furniture manufacturing business activities. The sector is also dominated by mature people as the jobs are manual. All the respondents indicated that they are not using e-commerce in their business.

4. RESULTS AND DISCUSSIONS

4.1. Factors Hindering E-Commerce Up-Take by Informal Manufacturing MSES in Harare, Zimbabwe

The discussions during the interview sessions showed that the most inhibiting factors to e-commerce usage include but not limited to the following:

4.1.1. High Cost of ICT Equipment and Gadgets

Interviewees said the e-commerce up-take comes with some costs and these include Internet connection and computer equipment.

> *"We don't afford to buy data bundles that are needed to conduct online transactions through interactive websites. The other issue is that the ICT gadgets are expensive and we can't afford to buy them for our staff."*

In addition, the informal manufacturers highlighted that the hosting of websites and maintaining them comes with costs.

> *"Hosting and maintaining websites is too expensive considering our cash flows and this cause us to resort to using traditional business methods. For large organisation it is reasonable to implement e-commerce in business because they can meet operating costs because they have big financial resources and trading capacity."*

Adopting e-commerce technologies can be expenses to them given their cash inflows. The general belief is that e-commerce is for well-established business that comply with state regulations.

4.1.2. Incompatibility with Business Operations

The interviewees stated that they are cognisant of the advantages of web-based e-commerce but they believe that they are not relevant to their operations. The other point raised is that e-commerce adoption does not suit local conditions.

> *"Web-based e-commerce is not compatible with the nature of our business operations and because of this reason, we do not implement it. Most of our raw materials are bought using hard cash and we only sell final products using hard currency and digital cash is not accepted. However, we adopt the use of social media advertising through WhatsApp and a few have created Facebook pages for their business. The disadvantage of social media is that one cannot transact online."*

Halaweh (2011) also found in his study that operational aspects of the small enterprises act as an obstacle to the usage of e-commerce. The results are also in line with the findings of this study and the participants highlighted that their nature of business contributes to unwillingness to use e-commerce.

Most of the buyers for the products in the informal manufacturing sector require to have a feel and touch of the products. The general perception is that e-commerce does not fit with local context whereby Zimbabweans like to bargain before making the transaction. E-commerce lacks bargaining ability.

> *"Zimbabweans always want to bargain before making transactions when buying goods and services. With online business, this ability is not fully embraced and as such, when have not shared a common vision of using e-commerce in our business. We prefer face to face interactions and traditional methods of conducting business."*

4.1.3. Lack of ICT Infrastructure Support by the Government

Manufacturing MSEs in Harare believe that the Zimbabwe government has not given them enough support to embrace e-commerce in their business activities. Over the past few years, not much effort has been done to facilitate policies and technology infrastructure that promote e-commerce up-take. They have the view that government should take a leading role in guaranteeing Internet access to manufacturing MSEs.

> *"The government through its relevant departments should embark on providing the necessary ICTs infrastructure for the informal MSEs in using e-commerce technologies. To adopt e-commerce, I require capable ICTs gargets. In my view, I think the Zimbabwean government is not providing the necessary support."*

From the response given above, it can be concluded that lack of lack of ICTs infrastructure support has hindered the uptake of e-commerce by informal manufacturers. A study by Lawrence and Tar (2010) also conclude that lack of enabling infrastructure has been one hindrance to the uptake of e-commerce by many businesses in developing countries.

4.1.4. Product Accessibility Challenges

Some interviewees believe that not many prospective customers will access their products even if they come up with interactive websites and adopt other e-commerce technologies. The interviewees agreed that with e-commerce adoption, business operations depend highly on Internet connection.

> *"Zimbabweans are used to traditional ways of shopping and doing business. Placing our products in online marketplaces will disadvantage us in terms of attracting customers. The cost of Internet data is beyond the reach of many and therefore a few will access our products online. Internet connectivity is not always reliable in Zimbabwe."*

The interviews are of the opinion that the limited accessibility of their products after e-commerce adoption is one major challenges. The cost of data and internet connectivity challenges need to be addressed for informal MSEs to fully embrace e-commerce.

4.1.5. Lack of Education and Awareness About E-Commerce

E-commerce uptake by Zimbabwe companies in general is relatively at its infancy and to manufacturing MSEs, it is relatively a new area.

> *"The majority of the informal workers are not very well educated to operate computer devices. The government should embark of mass education and training on how to use e-commerce in business and the benefits associated with it. How can I embrace e-commerce in business when I don't have ICTs education? The government should therefore subsidise ICTs education."*

The proprietors of the informal manufacturing MSEs need to be educated about what exactly is meant by the term e-commerce and the benefits that comes with its implementation. Lack of adequate education is regarded as the major drawback to e-commerce uptake and implementation in by the manufacturing MSEs. E-commerce awareness is basically still at the low level across the manufacturing MSEs division.

4.1.6. Cultural and Trust Issues

Unlike the context in developed countries, developing nations have a culture of avoiding online business due to lack of confidence in the online business atmosphere. People tent to avoid internet transaction where possible and the informal manufacturing MSEs are not excluded.

> *"There is always a lack of trust in online transaction and that's why we are skeptical in adopting e-commerce in our business. Our customers don't always prefer purchasing goods online. This is one of the most obstacle to e-commerce adoption. The culture in Zimbabwe is such that one sees the products first, makes feel and touch of it before making the payment."*

It is just a negative culture and perceptions that are actually deterring e-commerce uptake. This has been necessitated by the inadequacy of a robust ICTS policy for e-commerce in Zimbabwe. If a clear policy is put in place, the adoption rate can be increased. The results of this study are in line with the findings by Alqahtani et al. (2012) in Saudi Arabia which found that trust is a major barrier to e-commerce adoption by small enterprises. Likewise, Chiemeke and Evwiekpaefe (2011) found that trust and insecurity hindered e-commerce usage in many developing countries.

5. RECOMMENDATIONS

To ensure up-take of e-commerce by manufacturing MSEs, recommendation is made to the Zimbabwean government to come up with an e-commerce policy. The e-commerce policy should include training of MSEs in computer literacy related to the use and application of e-commerce technologies in their business operations. It should encourage the advancement or improvement in the telecommunications infrastructure that provides the basis for e-commerce adoption and Internet usage. Costs for accessing telecommunications infrastructure should be lowered because the informal manufacturing enterprises are operating at low scale. Strong incentives must also be

given to MSEs that adopts e-commerce in their operations. Furthermore, the government must ensure a fair taxation on manufacturing MSEs conducting business using e-commerce as compared to tax treatment of non-electronic transacting informal MSEs. The Zimbabwe government should also, through the ICT policy launched by the President, together with other science and technology initiatives, undertake research, coordination and consultation to speed manufacturing MSEs take up e-commerce. It can also establish an e-commerce and innovation fund for informal manufacturing MSEs. This will accelerate the rate at which these small companies implement e-commerce applications and technologies. Awareness campaigns should be carried out by the government so as to publicise case studies on successful e-commerce uptake by some MSEs from other countries highlighting the benefits from the viewpoint of manufacturing MSEs in less developed nations. Moreover, it is also the role of Zimbabwe government to address issues of electronic commerce security issues in order to build trust and confidence in all electronic transactions. This includes ensuring the privacy and confidentiality of records and online transactions.

6. CONCLUSION

In conclusion, this study looked into the major barriers to e-commerce up-take by informal manufacturing MSEs in Harare. The informal economy and MSEs have been a major source of foreign currency injection in the Zimbabwe economy. Their impact to economic growth of Zimbabwe as a whole can never be undermined. The research findings provide insights into the policies that could be taken by the Zimbabwean government so as to facilitate the rapid uptake of the e-commerce applications and technologies. There is very inadequate understanding of the advantages of e-commerce by informal manufacturing MSEs in Zimbabwe. Adequate investment in ICTs and e-commerce skills to manufacturing MSEs are of paramount importance to e-commerce adoption. This study provides information and knowledge to the manufacturing MSEs and policy makers and the future generations with the understanding of the Internet and e-commerce together with the full benefits that are associated with its adoption and implementation.

High cost of ICTs equipment and gadgets, incompatibility with business operations, lack of ICTs infrastructure support from the government, product accessibility challenges, lack of education and awareness about e-commerce, cultural and trust issues all hinder the adoption of e-commerce by informal manufacturing MSEs in the Zimbabwe.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: Both authors contributed equally to the conception and design of the study.

REFERENCES

Alghamdi, R., Drew, S., & Al-Ghaith, W. (2011). Factors influencing e-commerce adoption by retailers in Saudi Arabia: A qualitative analysis. *The Electronic Journal of Information Systems in Developing Countries*, *47*(1), 1-23.Available at: https://doi.org/10.1002/j.1681-4835.2011.tb00335.-.

Alqahtani, M. A., Al-Badi, A. H., & Mayhew, P. J. (2012). The enablers and disablers of e-commerce: Consumers' perspectives. *The Electronic Journal of Information Systems in Developing Countries*, *54*(1), 1-24.Available at: https://doi.org/10.1002/j.1681-4835.2012.tb00380.x.

April, G. (2007). *Dimensions for evaluating information systems service quality expectations of e-commerce SMMEs.* Unpublished M.Tech Thesis, Cape Peninsula University of Technology, Cape Town.

Batani, J., Denhere, P. T., & Mawere, T. (2015). The role of e-commerce in resuscitating the economy of Zimbabwe. *International Journal of Management & Business Studies*, *5*(2), 44-48.

Boateng, R., & Hinson, R. (2007). *E-commerce in least developed countries: Summary evidence and implications.* Paper presented at the IAABD Conference Proceedings.

Chaffey, D., Ellis-Chadwic, F., Mayer, R., & Johnston, K. (2009). *E-business and e-commerce management* (4th ed.). London: Financial Times Prentice Hall.

Chiemeke, S., & Evwiekpaefe, A. (2011). A conceptual framework of a modified unified theory of acceptance and use of technology (UTAUT) Model with Nigerian factors in E-commerce adoption. *Educational Research, 2*(12), 1719-1726.

Chong, W. K., Shafaghi, M., & Tan, B. L. (2011). Development of a business-to-business critical success factors (B2B CSFs) framework for Chinese SMEs. *Marketing Intelligence & Planning, 29*(5), 517-533.Available at: https://doi.org/10.1108/02634501111153700.

Foley, P., & Ram, M. (2002). *The use of online technology by ethnic minority businesses: A comparative study of the West Midlands and UK.* Leicester: Monograph, De Montfort University.

Halaweh, M. (2011). Adoption of e-commerce in Jordan: Understanding the security challenge. *The Electronic Journal of Information Systems in Developing Countries, 47*(1), 1-13.Available at: https://doi.org/10.1002/j.1681-4835.2011.tb00331.x.

Harindranath, G., Dyerson, R., & Barnes, D. (2008). ICT adoption and use in UK SMEs: A failure of initiatives? *Electronic Journal of Information Systems Evaluation, 11*(2), 91-96.

International Labour Organization. (2017). *World employment and social outlook: Sustainable enterprises and jobs.* Geneva: ILO.

Inusa, D. Y. (2006). *The use of E-commerce by rural communities for small business development.* Unpublished Masters Thesis, Cape Peninsula University of Cape Town, Cape Town.

Kurnia, S. (2006). *E-commerce adoption in developing countries: An Indonesian study.* Paper presented at the San Diego International Systems Conference, San Diego State University.

Kurnia, S. (2007). E-commerce adoption in developing countries: An Indonesian study. Retrieved from: https://www.academia.edu/29486954/.

Lawrence, J. E., & Tar, U. A. (2010). Barriers to e-commerce in developing countries. *Information, Society and Justice Journal, 3*(1), 23-35.

Love, P., Irani, Z., Li, H., Cheng, E., & Tse, R. (2001). An empirical analysis of the barriers to implementing e-commerce in small-medium sized construction contractors in the state of Victoria, Australia. *Construction Innovation, 1*(1), 31-41.Available at: https://doi.org/10.1191/147141701701571599.

MacGregor, R. C., & Kartiwi, M. (2010). Perception of barriers to e-commerce adoption in SMEs in a developed and developing country: a comparison between Australia and Indonesia. *Journal of Electronic Commerce in Organizations (JECO), 8*(1), 61-82.Available at: https://doi.org/10.4018/jeco.2010103004.

MacGregor, R. C., & Vrazalic, L. (2005). A basic model of electronic commerce adoption barriers: A study of regional small businesses in Sweden and Australia. *Journal of Small Business and Enterprise Development, 12*(4), 510-527.Available at: https://doi.org/10.1108/14626000510628199.

Mahadevan, B. (2000). Business models for Internet-based e-commerce: An anatomy. *California Management Review, 42*(4), 55-69.Available at: https://doi.org/10.2307/41166053.

Martin, L. M., & Harry, M. (2001). Blanket" approaches to promoting ICT in small firms: some lessons from the DTI ladder adoption model in the UK. *Internet Research: Electronic Networking Applications and Policy, 11*(5), 399-410.Available at: https://doi.org/10.1108/eum0000000006118.

McIvor, R., & Humphreys, P. (2004). Early supplier involvement in the design process: Lessons from the electronics industry. *Omega, 32*(3), 179-199.Available at: https://doi.org/10.1016/j.omega.2003.09.005.

Raisinghani, M. S., Melemez, T., Zou, L., Paslowski, C., Kimvidze, I., Taha, S., & Simons, K. (2005). E-business models in B2B: Process based categorization and analysis of B2B models. *International Journal of E-Business Research (IJEBR), 1*(1), 16-36.Available at: https://doi.org/10.4018/jebr.2005010102.

Rose, G., Khoo, H. M., & Straub, D. (1999). Current technological impediments to business-to-consumer electronic commerce. *Communications of the Association for Information Systems, 1*(1), 16.Available at: https://doi.org/10.17705/1cais.00116.

Saffu, K., Walker, J. H., & Hinson, R. (2008). Strategic value and electronic commerce adoption among small and medium-sized enterprises in a transitional economy. *The Journal of Business & Industrial Marketing*, *23*(6), 395–404.

Salman, A. (2004). Elusive challenges of e-change management in developing countries. *Business Process Management Journal*, *10*(2), 140-157.Available at: https://doi.org/10.1108/14637150410530226.

Stokes, D., & Wilson, N. (2010). *Small business management and entrepreneurship* (6th ed.). Toronto: Cengage Learning.

Tan, J., Tyler, K., & Manica, A. (2007). Business-to-business adoption of ecommerce in China. *Information & Management*, *44*(3), 332-351.Available at: https://doi.org/10.1016/j.im.2007.04.001.

Thulani, D., Tofara, C., & Langton, R. (1970). Electronic commerce benefits and adoption barriers in small and medium enterprises in Gweru, Zimbabwe. *The Journal of Internet Banking and Commerce*, *15*(1), 1-17.

Turban, E., King, D., Lee, J., & Viehland, D. (2004). *Electronic commerce: A managerial perspective*. New Jersey: Pearson/Prentice Hall.

Turban, E., king, D., McKay, J., Marshall, P., Lee, J., & Viehland, D. (2008). *Electronic commerce: A managerial perspective* (5th ed.): Prentice Hall.

Van, I. J., Van, D. W. T., Ball, L., & Millen, R. (2003). Applying servqual to websites: An exploratory study. *The International Journal of Quality and Reliability Management*, *20*(8), 919-935.

Williams, C. C., & Kedir, A. M. (2017). Starting-up unregistered and firm performance in Turkey. *International Entrepreneurship and Management Journal*, *13*(3), 797-817.Available at: https://doi.org/10.1007/s11365-016-0425-4.