

**AN INVESTIGATION INTO THE CHALLENGES FACED BY SMALL AND
MEDIUM ENTERPRISES IN UTILISING E-COMMERCE IN WINDHOEK,
NAMIBIA**

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ABSTRACT

The E-commerce industry in Namibia is currently significantly underutilised by the SME sector. It is well established in research undertaken in other economies globally that improved utilisation of e-commerce by SMEs uplifts their performance. This study aims to investigate the challenges faced by small and medium enterprises in utilising e-commerce. The study uses a case study approach with the City of Windhoek as the case. Methodologically the study used a qualitative research method. This study focussed on investigating the extent to which e-commerce is utilised by SMEs incubated by the City of Windhoek as well as their perceived challenges and benefits. The study interviewed eighteen (18) SME owners incubated at the City of Windhoek Bokamoso Incubation centre. Respondents were purposively selected and asked to respond to a set of semi-structured questions. Data collected in the study was analysed using thematic analysis, and the themes that emerged from their responses were discussed and supported with literature. The results suggest that these SMEs are aware of e-commerce, and some are already utilising it. Those utilising e-commerce do so because of benefits like international trade, reduced costs, and the opportunity for a high customer base. On the action drivers, SMEs believe that they are driven to adopt e-commerce because of the demand from the market. In addition, they are driven by external parties such as the Ministry of Trade and Industry to use e-commerce. The challenges identified by the SMEs are organisational, financial, technical as well as legal and regulatory. Even though the SME owners understand e-commerce benefits, they are hindered from adopting e-commerce by lack of funds to purchase secured online systems that are not prone to fraud and the regulator's framework surrounding e-commerce in Namibia does not support various online payment methods. The study recommends a drive to implement e-commerce as part of the long-term business strategy. Regulatory institutions should also work on providing awareness and ease the regulatory framework surrounding e-payment and the attendant security measures. At policy level, the study recommends financial inclusivity through the number of on-line payment systems that are accessible to SMEs.

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ABBREVIATIONS

B2C	: Business-to-consumer
B2B	: Business- to-Business E-commerce
EFT	: Electronic Funds Transfer
EDI	: Electronic Data Interchange
IT	: Information Technology
MITSMED	: Ministry of Industry, Trade SME Development
PERM	: Perceived eReadiness Model
PU	: Perceived Usefulness
PEOU	: Perceived Ease of Use
SMB	: Small and Medium Business
SME	: Small and Medium Enterprises
TAM	: Technology Acceptance Model
UN	: United Nations
UNCTAD	: United Nations Conference on Trade and Development
WTO	: World Trade Organisation

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May the omnipotent, omnipresent and omniscient Lord God meet you at your point of need and give you the wisdom and strength to help others in need of such support!

DEDICATION

This work is dedicated to my beloved children Abbie, Ethan, David and Eliezer to help them get motivation in their education. Also, to my late mother Emilia Ndinelao Shinana who laid a strong foundation for my education during my childhood.

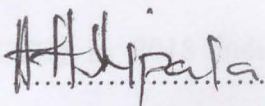
DECLARATION

I, Amenenge Ndeyapo Ashipala, hereby declares that this study: An investigation into the challenges faced by small and medium enterprises in utilising e-commerce in Windhoek, is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution.

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CHAPTER 1 : INTRODUCTION AND BACKGROUND

1.1 Introduction

This study investigates the challenges faced by Small and Medium Enterprises (SMEs) in utilising e-commerce in Windhoek. This chapter presents the background in terms of electronic commerce and how it has created a significant change in the way business is carried out globally. The site of the study is specifically the City of Windhoek in Namibia. This chapter further identifies the problem that this research addresses and the significance, limitations, and scope of the study. The research objectives are also outlined.

1.2 Background of the Study

In Namibia, over the past five years, Small & Medium Enterprises (SMEs) have contributed approximately 12% to the Gross Domestic Product (GDP) and have employed about 20 percent of the workforce in the same period (Amwele, 2013). The United Nations Conference on Trade and Development (UNCTD) in 2018 indicates that 12.1% of the Namibian population shops online. However, the rate of e-commerce adoption in SMEs is still rather low. A study conducted by Mthembo and Dlodlo (2016) in 2002 for the Bank of Namibia revealed that of the 121 companies surveyed, only 20 (0,2%) had an online share turnover.

Electronic Commerce (e-commerce) has been predicted to be a new driver of economic growth for developing countries (Saif-Ur-Rehman, 2016). However, adopting e-commerce has not been easy for SMEs worldwide (Jones, Packha, Beynon-Davies & Pickernell, 2011). Therefore, the adoption of e-commerce in SMEs remains a critical area that needs investigation. Garg and Choeu (2015) note that adopting Information and Communication Technology (ICT) in developing countries has not been capitalised on in terms of the power offered by the Internet in extending business beyond the traditional borders. Garg and Choeu (2015) further added that this is because of challenges such as lack of ICT and e-commerce knowledge, inability to perceive e-commerce benefits and unfriendly regulatory policy and

requirements. A study conducted by Shilyomunhu (2017) on the challenges in accessing finance by Small and Medium Enterprises (SMEs) at Bokamoso entrepreneurial centre in Windhoek recommended that there is a need for future research on e-commerce with the aim of transforming the SME sector.

1.3 Statement of the Problem

According to Shemi and Procter (2013), doing business via e-commerce platforms is a rapidly growing method of buying and selling of products, and services as well as sharing information via computer networks due to its convenience, wide reach, relatively low cost, and the ability to support the objectives of any business. Research indicates that e-commerce is not only one of the essential tools for large companies, but it is also imperative for SMEs' progress and sustenance (Khan and Khalique, 2014). Regardless of SMEs utilising e-commerce to progress and maintain their businesses, complaints are that SMEs in Namibia do not tap into the e-commerce market due to a limited number of SMEs offering online shopping (Mthembo & Dlodlo, 2016; Shilyomunhu, 2017).

This study addresses the problem of the low number of SMEs utilising e-commerce by looking at their challenges and the opportunities they could exploit. Shemi and Procter (2013) found the use of e-commerce to be a significant factor in the effectiveness of SMEs. Khaskheli and Junn (2016, p.14) describe "the power of e-commerce in terms of it providing an opportunity not to be limited by constraints imposed by physical outlets and enabling SMEs to sell their items to the world". If SMEs do not utilise e-commerce, then they cannot increase their relative market power to reach customers across geographical borders. Moreover, research concerning the use of e-commerce in Namibia is still at an infancy level. Accordingly, this study focuses on determining the current level of e-commerce adoption by SMEs in Namibia.

1.3 Research Objectives

The main objective of the study is to investigate the challenges faced by SMEs in utilising e-commerce by SMEs at the Bokamoso Incubation Centre in Windhoek. The following sub-objectives guide this research:

- To determine the extent to which e-commerce is being utilised by SMEs incubated at Bokamoso
- To establish the benefits of e-commerce adoption by the SMEs incubated at the Bokamoso
- To determine the challenges affecting the adoption of e-commerce by SMEs incubated at Bokamoso

1.4 Significance of the Study

The study can be used as a basis by management in SMEs to review and inform internal decisions on the adoption of e-commerce platforms to improve sales for their businesses. Results of the study can also be used to inform policy on ways to incorporate e-commerce in SME business processes.

1.5 Limitation of the Study

This study is mainly qualitative and is based on a case study of SMEs at the Bokamoso Incubation Centre in Windhoek. It uses a thematic sensing approach. Generalisation of results from the study will be limited by virtue of the limited number of respondents and geographical coverage of the data collection. Influences of language may be a limitation; some respondents were not able to understand English. Thus, the researcher filled in the interview questions for them by translating their responses into English.

1.6 Delimitation of the Study

This research is only covering the SMEs at the Bokamoso Incubation Centre in Windhoek. The study was also confined to surveying SMEs incubated by the City of Windhoek at the Bokamoso entrepreneurial centre and the Industrial stalls.

CHAPTER 2 : LITERATURE REVIEW

2.1 Introduction

The previous chapter posited the problem that SMEs in Namibia are facing, in conducting business: not participating in e-commerce and identified some objectives to be achieved by the study. This chapter presents a review of the literature on the above subject. The review links the purpose of the study to various theoretical perspectives on the subject of study. This literature review demonstrates how the research problem in this study fits into the body of knowledge on the subject under study.

The theoretical framework is constructed on the evidence from different countries on the adoption of e-commerce by SMEs. The review also provides evidence-based barriers that drive or hold back SMEs from participating in e-commerce by focusing on examples of where changes in the e-commerce can trigger improvement in the operation of SMEs and the role that various actors can play through this process. Finally, the review also brings forth models that have been observed to be effective in the adoption of e-commerce.

2.2 SME Definition and Overview

The SME sector is commonly categorised in three sub-categories: micro, small, and medium enterprises. Micro SMEs are the smallest among the three categories. According to Sayedi and Issah (2013) in the UK, micro SMEs are businesses that employ up to nine (9) employees, while in Australia they are said to employ less than five (5) employees. Olusegun (2012) also notes that micro-businesses should be the small type form of SME that may employ less than nine (9) employees or may not have employees at all. The category of small businesses is usually more prominent than the micro-businesses in terms of size, the number of employees, structure, capital investment and economic contributions.

According to Khan and Khalique (2014) the abbreviation SME which stands for Small and Medium-sized Enterprises is commonly used in the European Union countries, the United Nations (UN) and the World Trade Organisation (WTO). However, the term Small and Medium Business (SMB) is also prevailing in a few other countries of the world (Syed, Ahmadani, Shaikh & Shaikh, 2012). The definition itself and the classification of businesses is constructed on characteristics that can be quantified depending on the number of employees and revenue per year (Khan & Khalique, 2014).

Mohammad (2012, p.39) noted that, “the specific definition for SMEs used by each country in the world, is usually based on criteria which includes sales or assets, number of employees and level of capital”. Therefore, there is no uniform definition of SMEs available in literature as it is widely influenced by policy imperatives in specific countries. For example, in the USA, companies having employees less than five hundred (500) are considered as SMEs (Khan and Khalique, 2014). In the case of the European Union, businesses having less than 250 employees are considered as small and medium-sized businesses (Khalique, Isa, Nassir Shaari & Ageel, 2011).

Olusegun (2012) noted that SMEs have been globally acknowledged as instruments for achieving economic growth and development as well as employment creation. According to Herr and Nettekoven (2018), all over the world, SMEs are important in terms of employment creation and they can also become a source of innovation and increased productivity. Countries such as the USA, United Kingdom (UK), China, Singapore, India, Vietnam, Malaysia, Thailand, and a host of others have continued to emphasise the importance of SME development (Olusegun, 2012). For many years, small businesses have played an essential role in the Scottish economy, particularly since the decline of traditional industries such as shipbuilding, coal, steel and textiles (Stansfield & Grant, 2003). This study focuses primarily

on the challenges of adoption of e-commerce by SMEs because they are a critical pillar for development.

2.2.1 SMEs in Namibia

The Ministry of Industry, Trade and SME Development (MITSMED) (2015) defines an SME as an organisation that has an annual turnover of less than N\$1 million to N\$ 10 million per annum and its employment ranging from 6 to 100 employees. Table 2-1 illustrates the definition of SMEs with regards to Namibia. It is clear from the table that in Namibia the SME definition utilises the number of workers, annual turnover and also the capital base of a business as the important criteria. According to Ogbokor and Ngeendepi (2012) any sector will have businesses that qualify to be SMEs.

Table 2-1: Definition of Small to Medium Enterprises businesses in Namibia

Criteria			
Sector	Employment	Turnover Less than N\$000	Capital Less than N\$000
Manufacturing	Less than 10 persons	1000	500
All other Businesses	Less than 5 persons	250	100

Source: Ogbokor & Ngeendepi (2012)

Jauch (2010) noted that measuring capital investment, as suggested by the above definition in Table 2-1 is problematic because of the difficulty of achieving accurate measurement and also because of the impact of inflation. The study proposes the number of employees as the most valid criterion. A MITSMED (2015) study recommended that the present definition be explored in light of global definitions on the SME segment so as to permit correlations. It

inferred that most of the ventures will stay small scale undertakings except for a small number that will evolve into large organisations.

2.3 E-commerce Overview

E-commerce development started in the early 1960s, even though various applications associated with Electronic Funds Transfer (EFT) came about around the 1970s (Qin, 2010). After the 1970s, another technology known as Electronic Data Interchange (EDI) was introduced to allow the business to perform transactions between various organisations whereby invoices could be between organisations electronically (Qin, 2010).

In 1969, the internet started because the United State government had an intent of supporting academic and scientific research (Leiner, Cerf, Clark, Kahn, Kleinrock, Lynch, & Wolff, 2009). According to Aghaei, Nematbakhsh and Farsani (2012) the rapid evolution of the internet and its graphical component, the World Wide Web in the 1990s and thereafter, enabled organisations to share and exchange information because it was more affordable than the previous medium of EDI.

Electronic commerce or e-commerce is a term for any type of business, or commercial transaction that involves the transfer of information across the internet (Mohiuddin, 2014). Boone and Kurtz (2009, p.240) identified E-commerce as “the electronic exchange of information, goods, services and payments” while Ma’aruf and Abdulkadir (2012) defined E-commerce as the use of electronic equipment to conduct one’s business. According to Qin (2010), e-commerce is the process of purchasing and selling products or services using electronic data transmission via the internet. Definitions have indicated that the act of using electronic mail or the use of a website for the purpose of publishing electronically alone does not constitute e-commerce. According to Ma’aruf and Abdulkadir (2012), a study in Nigeria

demonstrated that e-commerce is indeed relevant to Nigeria, despite limitations with the existing infrastructure and other issues related to the economic and socio-cultural conditions.

According to Akman and Mishra (2017), e-commerce is revolutionizing how organisations conduct their business operations and is set to have significant sociotechnical implications. This observation demonstrates that e-commerce can have major impact on SMEs growth. Efficiencies can improve through e-commerce due to many commonly available forms of communication which include mobile telephony, the internet and other forms of information and communication technology (ICT) in their day-to-day business activities (Apulu & Latham, 2011).

In India, e-commerce is probably creating the biggest revolution in the retail industry, and this trend should continue in the years to come as India's internet penetration is currently at around 35% dominated by Amazon, eBay, Flipkart, Snapdeal, Shoppers-Stop, Reliance, and Croma (Patil, 2017). However, in Bangladesh, with the increasing diffusion of ICTs, more specifically the internet, the business is rapidly moving towards Business-to-Business (B2B) with strong participation in the worldwide market (Mohiuddin, 2014). Mohiuddin further added that there are six types of e-commerce and it is anticipated that business-to-business e-commerce (B2B) and business-to-customer (B2C) e-commerce will dominate as the two most significant categories.

Business-to-Business E-commerce (B2B)

In a business-to-business e-commerce, a firm's customers are other firms, such as suppliers, distributors, agencies and customers (Vagro and Lusch, 2011). Thus, B2B e-commerce implies that both sellers (suppliers) and buyers are business corporations. The goal of

management is to understand the business buying processes and to build profitable relationships with business consumers by creating additional value (Kotler & Armstrong, 2010). B2B markets are about buying goods and services to use in development, creation and delivery of their products and services or to resell to others (Kotler & Armstrong, 2010). With regards to SMEs, B2B e-commerce is a means of increasing the access of smaller businesses to national, regional and global markets. B2B e-commerce involves many buyers and sellers brought into one trading community.

a) Business-to-Customer (B2C)

Business-to-consumer (B2C) e-commerce uses the Internet as a retail market channel and in the case of information, as a product or service delivery channel (Drigas & Leliopoulos, 2013). According to Humphrey (2002) Business- to Customer B2C e-commerce implies that the buyers are individual consumers.

2.3.1 Characteristics of E-commerce

As a backbone for business where transactions take place instantly over a telecommunication medium, e-commerce enables the fostering of business and value creation (Prince & Prasad, 2020). In e-commerce, the website is the companies' interface with the customer, and its usability is crucial to the success of the undertaking (Purwati, 2011). There are some unique features of e-commerce technology namely ubiquity, global reach, universal standard, richness, interactivity, information density and personalization (Maulany, 2019) that transform the traditional way of doing business and enhance companies.

As the fastest growing facet of the internet and other information technologies, e-commerce offers speed, convenience, and often cost effectiveness for today's busy shoppers, but many ecommerce sites are still too hard to use and fall short on consumer expectations (Purwati, 2011). According to Luo and Chen (2018) while most e-commerce takes place domestically,

individuals and enterprises ordering or selling goods and services online across borders contribute to international trade. The United Nations Conference on Trade and Development (UNCTAD) (2018) estimates that cross-border business-to-consumer e-commerce in 2015 amounted to \$189 billion, and that some 380 million consumers made purchases on overseas websites.

2.3.2 E-commerce in Namibia

According to Negumbo (2018), the Namibian government followed suit, by introducing e-government projects/applications, simply because they acknowledged the importance of embracing technology to render services efficiently and effectively. Mthembo and Dlodlo (2016) have noted that about 60% Namibian has an improved ICT Infrastructure and internet penetration, thus creating an ideal environment for web-based electronic commerce. However, the SME sector in Namibia, like many firms in Africa struggle due to a lack of adequate information technology infrastructure (Dlodlo (2016). Namibia, as a developing nation, has embarked on being a knowledge economy by 2030 as enshrined in the National Development Plan. The Export Enterprises of South Africa (2020, p.10) reported that.

“E-commerce is in a nascent stage in Namibia, and many online shopping platforms launched were short-lived due to outdated content and lack of sophisticated and secure payment methods. Many Namibians do not trust websites or feel safe to provide credit card details online.”

The Institute for Public Policy Research report by Licks (2018) reported that the Namibian government has worked on an electronic transaction and cybercrime bill since 2017. The draft bill has been repeatedly postponed due to the public outcry over surveillance concerns. The lack of a legal framework brings significant limitations to electronic payments (Saif-Ur-

Rehman, 2016) and similarly, services that are international such as PayPal do not allow Namibians to receive money (Coetzee, 2015).

Namibia has one of the smallest consumer bases in Africa, which has discouraged many international or regional actors in the e-commerce industry from entering the market (The Export Enterprises of South Africa, 2020). The Export Enterprises of South Africa (2020) further added that the development of e-commerce is also hampered by the massive size of the country, which makes room for logistical barriers. The Hootsuite Survey (2018) claimed that even though 59% of Namibians have a bank account, only 8% have a credit card. On a positive note, 3% of the Namibian population is online shoppers. However, FinScope Financial Inclusion Survey (2017) indicated that e-commerce could grow through the payment via wallet accounts as nearly 30% of Namibians own at least one type of digital wallet.

2.4 E-commerce Adoption by SMEs

No one can deny the fact that SMEs are contributors to national economies, especially in the context of the rapid growth witnessed in the developing world (Poorangi & Wong, 2013). Carcary, Doherty and Conway (2014) added that SMEs differ in the adoption of IT when compared to bigger counterparts. SME owners regard technology as very difficult to implement (Rizos, Behrens, Van der Gaast, Hoffman, Ioannou, Kafyeke & Topi, 2016). E-commerce adoption can be defined as “set up of a company web site to share information, maintain relationships as well as carry out a transaction using electronic networks”. Ma’aruf and Abdulkadir (2012) further added that e-commerce would change the mode of doing business, thus offer excellent opportunities for growth in developing nations, particularly in Nigeria.

However, although there is opinion that e-commerce should not be adopted just for the sake of it; in order to adopt e-commerce, several steps should be taken (Wanjau, Macharia & Ayodo, 2012). E-commerce adoption is a process which is generally divided into various phases and not a once-off event (Okadapau, Omwenga & Oboko, 2016). The method of e-commerce adoption is defined by Tibbs, Ondiek, Kingori and Mwazuna (2015) as the adoption hierarchy with stages model. SMEs tend to see value at the bottom of the regime. Lawrence and Tar (2010) maintain that in an organisation, e-commerce is always in one of the large numbers of possible “states of adoption”, and these states vary from less advanced to more advance. Stages of growth models generally reflect the maturing nature of the use of information systems (IS) in organisations (Poeppelbuss, Niehaves, Simons & Becker, 2011).

A study conducted by Garg and Choeu (2015) showed that although SMEs have adopted many types of e-commerce applications; they could be at different stages in terms of adoption of those applications as far as the level of complexity is concerned. Therefore, to classify SMEs according to their stage of e-commerce adoption, a conceptual framework is needed, and the models that make up these concepts discussed in section 2.6 of this study. The next section provides the details of the e-commerce adoption in the world and then in developing countries where Namibia belongs.

2.4.1 Evidence from Around the World

Given the high population density and the rapid spread of information technology, Asia occupies a leading position with regards then followed by highly populated regions such as Europe and America (Babenko, Kulczyk, Perevozova, Syniavska & Davydova, 2019). Developed countries like the USA and UK that have benefited from low-cost accessibility to broader markets have been able to access markets anytime and anywhere, thus boosting their economy and increasing their competitive advantage (Gautam, 2012).

According to Babenko *et al.*, (2019), the worldwide retail e-commerce sales show that the retail e-commerce sales worldwide in 2017 amounted to 2.3 trillion US dollars. According to Flynn, Saravia, Cenzone, Gupta, and Tezel (2019) the top three (3) online stores revenue are mainly Amazon.com, Apple.com, and Walmart.com and they amounted to almost 100 billion US dollars in 2017. Babenko *et al.*, (2019) noted that throughout the world, e-commerce is a much-growing area without signs of a downturn in 2019 and even in subsequent years as it remains a popular choice for investment and new businesses.

In Denmark, the government, through the ICT policy, collaborates with industry and commerce association to enhance IT and e-commerce diffusion (Scupola, 2009). A study on the impact of electronic commerce on the competitiveness of SMEs in the European Union found that new opportunities; (2) flexibility to respond to new opportunities; and (3) cost savings are the three main incentives that SMEs need to undertake e-commerce (Marcus & Petropoulos, 2017).

In Denmark, the government, through the ICT policy, collaborates with industry and commerce association to enhance IT and e-commerce diffusion.

2.4.2 Contexts of e-commerce Adoption in Developing Countries

E-commerce has attracted various researchers especially in developing countries (Egbokhare, Ukaoha & Chiemeké, 2011) although Abou-Shouk, Lim and Megicks (2016) have noted that investigation of e-commerce adoption by SMEs in developing countries represents an emerging area of research. By developing countries, this research refers to newly emerging and post-colonial economies of Africa, Asia, South America and the Pacific. There is therefore a wide range of landscape in the adoption levels of e-commerce in developing countries.

A study conducted by Garg and Choeu (2015) on SME adoption of e-commerce in South Africa revealed that owner/manager and their gender does not influence the adoption level of

e-commerce, but this has been observed to be an issue in Malaysia (Hunaiti, Masa'deh, Mansour & Al-Nawafleh, 2009). SMEs in South Africa have indicated that that the type of business, occupation level, numbers of employees in the company and academic qualification influenced the adoption levels amongst SMEs (Garg & Choeu, 2015). According to Ramdansyah and Taufik (2017), technology readiness, perceived benefit owners' innovativeness, owners' IT experience and ability are the determinant factors influencing Indonesian SMEs in adopting e-commerce.

2.5 E-commerce utilisation and Adoption Challenges amongst SMEs

Barriers to e-commerce in developing countries vary widely and are most commonly related to factors such as infrastructure, cost factors, security and trust factors and poor distribution logistics (Lawrence & Tar, 2010). Abbad, Abbad and Saleh (2011) have found that the obstacles to implementing e-commerce are management support, technical issues, and knowledge of e-commerce, partners' participation, and security. Zaid (2012) categorised the barriers into six groups being organisational barriers, financial barriers, technical barriers, and legal and regulatory barriers. This research will adopt four categories of barriers from Zaid's study.

2.5.1 Organisational Barriers

Organisational barriers come into play because of the organisation's attitude towards the implementation of an e-commerce system (Saif-Ur-Rehman, 2016). Vermont, Negro, Verweij, Kuppens and Hekkert (2019) have noted that organisational barriers are the lack of organisational culture and planning, lack of employee knowledge, lack of infrastructure, reluctance to link to other parties, time taken for implementation, lack of supplier interest, and lack of perceived need on e-commerce. However, Peter, Zahir, Heng, Eddie, Cheng & Tse (2001) stated that organisational barriers involve indirect or hidden cost as well as the

inability to quantify (financially) the impact of e-commerce and the lack of an information technology infrastructure.

A survey by Ghorbani Khaldif and Shoukatfadaei (2011) considered organisational barriers in using e-commerce in agricultural industries in Mazandaran province. Their findings suggested that the most critical effective organisational barriers in applying e-commerce are e-commerce mismatch with organisation products and services, poor planning and organising for e-commerce, lack of sufficient knowledge in this area in the organisation, mismatching with the business and lack of adequate time to review new technology and systems. According to Zaied (2012), organisational barriers such as difficulty in changing the existing working procedure, lack of management support, organisational resistance to change, limited use of internet banking and web portals SMEs are some of the barriers for SMEs adoption on e-commerce. These are challenges making e-commerce complicated to implement among SMEs.

2.5.2 Financial Barriers

According to Zaied (2012), electronic business technologies involve high implementation cost. Therefore, financial barriers are costs required for investment, maintenance and risk of implementing the e-commerce system (Peter et al., 2001). According to Chang, Barun and Dasgupta (2015), SMEs typically have limited resources and are often on tighter financial constraints. Therefore, lack of financial infrastructure (Zaied, 2012), inability to develop a return on investment (Fatoki, 2014), the uncertainty of payment methods (Viinikka, 2019), might impact businesses decision on implementation of e-commerce.

Some organisations are not aware of the appropriate techniques used to evaluate the investment potential of e-commerce. The decision to invest in information technology was based on a gut feeling due to the lack of understanding of the releasable benefits of e-

commerce (Saif-Ur-Rehman, 2016; Zaied, 2012). If an organisation evaluates its investments with complete information rigorously and systematically, accounting for benefits that are direct and indirect as well as implementation costs it should be able to gain financial and nonfinancial benefits offered by e-commerce (Peter et al., 2001).

2.5.3 Technical Barriers

One of the main issues in technical barriers is when the type of technologies or software adopted is not matching with the organisational business requirements (peter et al., 2001). Therefore, incompatibility with technologies applied in the business will affect business profitability and increase operational costs (Saif-Ur-Rehman, 2016). Kayworth and Whitten (2010) have noted that an organisation needs to have an external consultant to provide expertise in technology to make sure that the technologies implemented to align with the organisational business requirement. This problem occurs during the implementation stage; it can therefore be costly and become an on-going cost to the organisation. However, Sayedi and Issah (2013) have observed that, if the organisation manages to overcome this problem, there are higher gains from e-commerce in future marketplaces.

Lack of education and knowledge about e-commerce (Iddris, 2012) has created the attitude of distrust towards the information technology industry (Jartti, Litmanen, Lacey & Moffatt, 2017). Problems appear at various levels such as computer viruses on the internet (Masoud, Jaradat, Manasrah & Jannoud, 2019), the dangers of financial losses during electronic transactions (Bressler & Bressler, 2019), to the lack of suitable laws and regulations to facilitate e-commerce (Saif-Ur-Rehman, 2016).

Hence trust and security are quite prominent among the challenges to be overcome in facilitating e-commerce (Bressler & Bressler, 2019; Sullivan & Kim, 2018). A study conducted by Sampene (2016) in Ghana has indicated that e-commerce sites in Ghana are

taken over by fraudsters who use the platform to dupe people. However, due to increasing innovation and new technologies, e-commerce implementations have become complicated (Liu, 2017; Zaied, 2012). The extensive range of e-commerce options has caused concerns for businesses to choose a system that is compatible with the suppliers and customers (Saif-Ur-Rehman, 2016).

2.5.4 Legal and Regulatory Barriers

A recent survey conducted among Brazilian consumers showed that the low rate of e-commerce adoption was related to government regulations on privacy and security and the lack of business laws for e-commerce (de Moraes & de Souza Meirelles, 2017). Similarly, in China, it was found that consumers lack transactional and institutional trust. This was observed as a significant impediment to e-commerce (Rathee & Prakash, 2017). According to Alibeigi and Munir (2016), countries such as Malaysia have facilitated and removed the barriers of e-commerce adoption by enacting several pieces of legislation, for example, the Electronic Commerce Act, 2006 (ECA).

The Malaysian Government has committed itself to providing a comprehensive regulatory framework of cyber laws that can assist the development of information technology and e-commerce (Saif-Ur-Rehman, 2016). Govender (2018) has indicated that reassuring security and drafting laws about e-digital signature could strive to combat crimes in the area of computer information.

2.6 Theoretical Background

Adopting Information Technology (IT) is very important with regards to the advancement of economic systems (Nyoro, Kamau, Wanyembi, Titus, & Dinda, 2015). Several models have been developed to illustrate the adoption of IT in various sectors (Aboelmaged, 2010; Featherman, Miyazaki & Spratt, 2010; Taipale, 2013). According to Wanyoike, Mukulu and

Waititi (2012), only a small number of researchers focusing on technology adoption are working on applying the adoption of electronic commerce (e-commerce) in small and medium enterprises.

There are many theories used in Information Systems (IS) research (Okadapau, 2016). This section reviews the most commonly used approaches that have been employed in technology adoption, especially e-commerce adoption research in SMEs. This study reviews some of the following theories and models: The Technology Acceptance Model (TAM) (Evans, Hackney, Rainier, Rawski, Yang & Johnson, 2014); the Theory of Planned Behaviour (TPB) (Montano & Kaspersky, 2015); the Diffusion of Innovation Theory (DIT) (Poorangi, Khin, Nikoonejad & Kardevani, 2013); and the Perceived e-readiness Model (PERM) (Molla, 2005). This research takes cognizance of the views from all the six theories, and it will analyse and synthesise views on benefits and the challenges of e-commerce adoption by SMEs in studying the sample from the City of Windhoek.

2.6.1 Technology Acceptance Model (TAM)

Several studies (Evans *et al.*, 2014; Okadapau, Omwenga & Oboko, 2016) investigating users' perceptions about new or existing software or other technological solution used the Technology Acceptance Model (TAM). The model gives a good understanding of how users or potential users evaluate the solution and its adequateness in general (Okadapau *et al.*, 2016). TAM is adapted from the Theory of Reasoned Action (TRA) model, which explains and predicts the behaviour of people in a specific situation. TRA proposes that a person's behaviour is determined by the person's intention to perform the behaviours; and the 'intention' is a function of the person's attitudes toward the behaviours and subjective norms (Chooprayoon, Fung, & Depickere, 2007).

The schematic diagram in Figure 2.1 Clearly explains the relationships between the variables, and it shows that the TAM model posits four factors positioned to have an effect adoption of e-commerce. The schematic diagram in Figure 2.1 explains clearly the relationships between the variables, and it shows that the TAM model consists of four factors that are positioned to have an effect adoption of e-commerce. According to Johar and Awalluddin (2011), the Perceived Usefulness (PU) is the degree to which an individual believes that using a system would enhance his or her job performance without regarding other limitations. Johar and Awalluddin (2011) further added that the Perceived Ease of Use (PEOU) is the individual's perception that using the new technology will be free of hardship and hard effort PEOU which is defined as the degree to which a person perceived how easy it is to use the technology and PU refers to the extent to which individuals believe how useful the technology would.

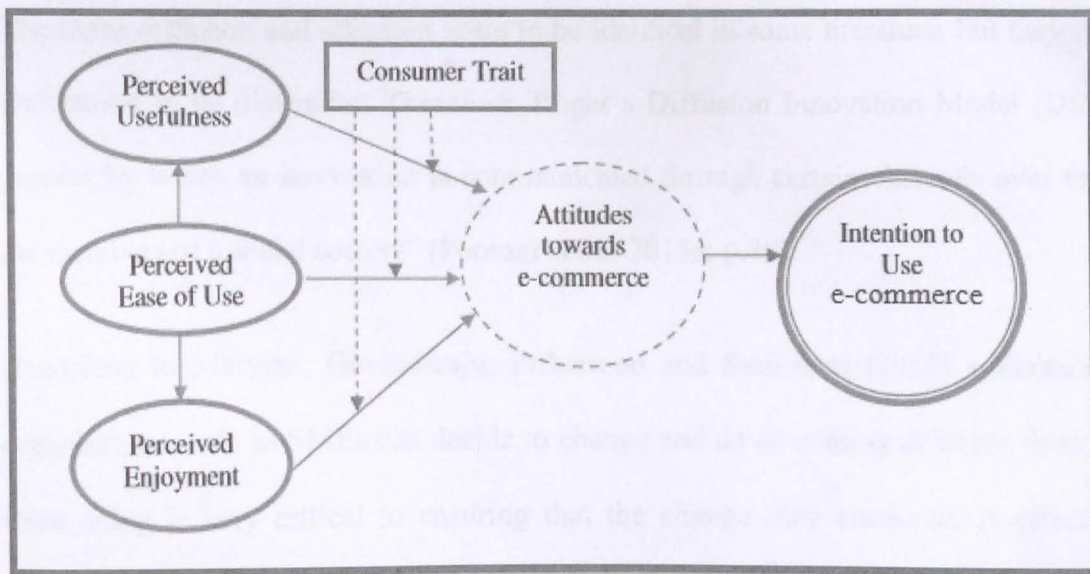


Figure 2.1: Relationship amongst various TAM variables, Source: Johar & Awalluddin (2011)

TAM summarises that an individual's intention to adopt a piece of technology is determined by the person's attitude toward the use of technology (Okadapau Omwenga & Oboko, 2016). Therefore, TAM proposes that perceptions or beliefs regarding innovation are instrumental when developing attitudes that will lead to system utilization behaviour (Wadie, 2012). TAM

relevancy to this study is that other models can influence the adoption of e-commerce by SMEs. According to Okadapau Omwenga and Oboko (2016) states that the user must be comfortable with the technology deployed, although expecting external variable factors affecting acceptance, which is beyond the user control.

2.6.2 Diffusion of Innovation Theory

Adoption is the commitment taken in fully utilising innovation for the best course of action (Al-Jabri & Sohail, 2012). Mahajan (2010) on the other hand, defines innovation as mostly an idea perceived by an individual or anyone else interested in adopting the concept. The definition of adoption and innovation in this sense directed to consumers. However, Ramdansyah and Taufik (2017) noted that with regards to the B2B market as the area of concern in this study, innovation is mainly a process, machinery, or techniques that a company has adopted for their usage.

The terms diffusion and adoption seem to be identical in some literature, but they can also be understood to be dissimilar. Therefore, Roger's Diffusion Innovation Model (DIM) is "the process by which an innovation is communicated through certain channels over time among the members of a social society" (Pooragi *et al.*, 2013a; p.30).

According to Maryeni, Govindaraju, Prihartono and Sudirman (2012) understanding how organisations such as SMEs can decide to change and do something different from what they were doing is very critical to ensuring that the change they encounter is effective. Thus, research into DIM is fundamental as it can indicate how the challenges that SMEs encounter in the implementation of e-commerce can be unsuccessful. Rogers (1995) who developed the DIM, explained that it represents the adoption rate and the stages through which one passes before adopting innovation.

Pooragi *et al.*, (2013a) who cited Rogers (2003) have indicated that the DIT has five (5) essential attributes that are affecting levels adoption and as well as their relative advantage, compatibility, complexity, and the capability to perceive. Apart from difficulties that might arise, all these factors have a positive relationship with the adoption of technology which in this study is the term adoption of the decision to utilise innovation in full as the best course of action (Ramdansyah & Taufik 2017).

Comprehending how business is determined to change as well as do something different (Moseley, 2000) is essential in ensuring that changes made are beneficial. Therefore, research into DIM is vital as it designates how various challenges can impact the implementation of multiple innovations (Baskerville & Pries-Heje 2001). Rogers (1995) as the mastermind behind this model, explained that the creation represents the rate and stage at which a company needs to pass when adopting an innovation. Since its development, this model has been widely used to best explain such adoptions of innovation.

Migiro (2006) reiterates that the adoption of e-commerce by SMEs as an innovation of selling their goods online enables them to compete in the global market and to improve their efficiency and closes the gap between customers and suppliers. Referring to the theory of Rogers (Pooragi *et al.*, 2013a) and Migiro (2006) guarantees that the motivations for the adoption of e-commerce in SMEs are:

1. Interaction with customers,
2. Taking orders online,
3. Increased sales,
4. New customers and market penetration,
5. Marketing strategies,
6. Improvement of the quality of their information,

7. Increase internal efficiency and

8. Improved competitiveness.

Another study by Chong and Pervan (2007) which applied Rogers' theory in Australia, shows that SMEs use e-commerce to their relative advantage, which has a strong relationship with the adoption of e-commerce among SMEs. Al-Nawafleh (2009) added that internet usage in the USA had created an environment that is ripe for the adoption of e-commerce. Based on research by Hunaiti, Masa'deh, Mansour and Al-Nawafleh (2009) in which Rogers' theory was also applied in their study, all the five factors, especially relative advantage, has a strong relationship with the adoption of e-commerce in Malaysian manufacturing SMEs.

2.6.3 Perceived E-readiness Model (PERM)

According to Ali and Alrayes (2014), E-Readiness is "a measure of the degree to which a country, nation or economy may be ready, willing or prepared to obtain benefits which arise from information and information technologies". When it comes to conducting E-Readiness assessment within countries is useful because it facilitates concrete planning and posters positive changes for a nation, and this is a valuable starting point for developing counties (Dada, 2006). However, in terms of business, Aboelmaged (2014) noted that e-readiness is a measure of its e-business environment and a collection of factors that indicate how amendable a market is to internet-based opportunities". In the context of this research, this e readiness is needed for businesses specifically SMEs because Lou and Goulding (2010) noted that this allows a company to expand domestically and internationally so that they can compete readily in the global open market.

Studies by Wanjau et al. (2012).as well as Ali and Alrayes (2014) have shown that there are different E-Readiness tools with a range of questions, statistics, and best practice

benchmarking and historical analyses developed. Tan and Ludwig (2016) tested and validated PERM in China and found that Perceived Organisational e-Readiness and social-cultural factors are the main problems affecting B2B's in adopting e-commerce. Another study conducted by Wanyoike *et al.*, (2012) in Malaysia has indicated that inter-organisational relationships in the adoption of e-business in the supply chain of Malaysian SMEs are the most influential factor.

Lawrence and Tar (2010) emphasised that there is an evident lack of an appropriate model to investigate e-commerce adoption in developing countries. As a result, Zaied (2012) noted that there is a need to move from just measurements of this model to come up with actions that consider both small, micro and medium-sized business. Wanjau *et al.* (2012), as well as Ali and Alrayes (2014), added that when it comes to considering organisational involvement in implementing the technology and the environment readiness studies should include both internal and external factor for e-commerce adoption. This study adopts this perspective in its approach.

2.7 Conceptual Framework

Although TAM has been verified by scholars (Okadapau, Omwenga & Oboko, 2016; Okadapau *et al.*, 2016) worldwide, combining TAM with other theoretical models such as the DIT and PERM is more useful for investigating the technological acceptance by users. The primary goal of this study is to examine the challenges faced by SMEs in utilising e-commerce in Windhoek by looking at the factors of Rogers's theory on the adoption of e-commerce in SMEs.

In this study, five elements that comprise of TAM, DIT and PERM are incorporated, and their influence on the adoption of e-commerce is duly investigated. For this study, the conceptual

model was built by adopting a model developed by Peter et al. (2001), as explained in section 2.5. The findings from other studies, including literature reviewed earlier. In this model, Peter et al. (2001) classified the barriers under four categories, namely organisational, technical, financial and legal and regulatory obstacles as well as behavioural challenges.

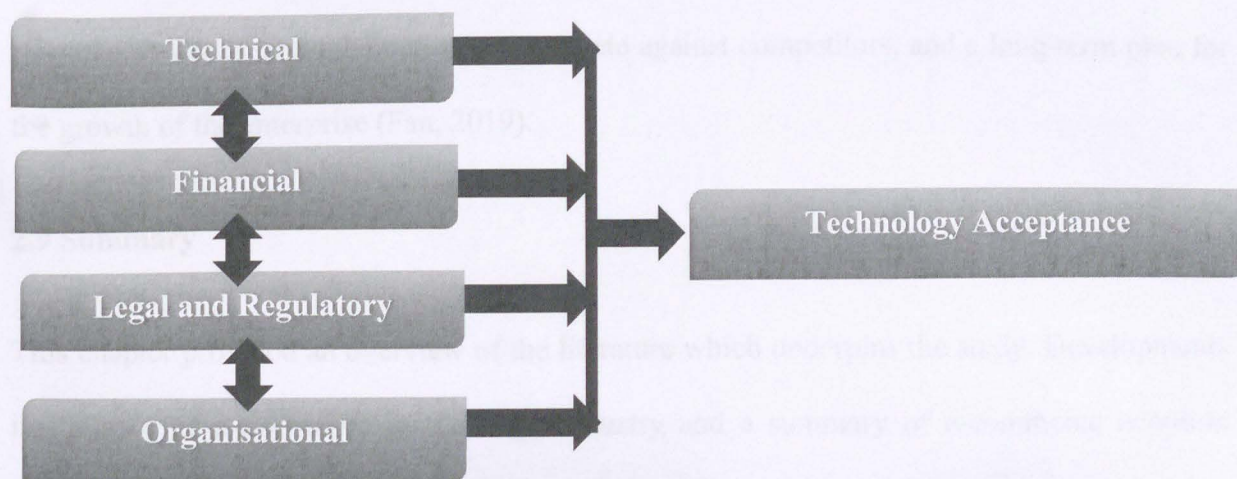


Figure 2.2: Research concept model, Source: Researcher's Own Construct

Most of the past studies seemed to match the barriers' groupings suggested by this model, although some challenges suggested by other analyses could not correctly fit into it. Therefore, these barriers will be the centre of this study. Thus figure 2.2 is providing the conceptual framework for this study.

2.8 Strategies to Adopting E-commerce by SMEs

Davenport and Levin-Scherz (2017) considers strategy as the determining factor of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources for carrying of those goals. In this case, this would be a determining factor of what SMEs can adopt into utilising and adopting e-commerce. For Ramachandran, Fegade and Raichurkar (2017), a strategy is an organisation's objectives and goals in which obtains advantages for the organisation through an effective arrangement of resources within a changing environment to satisfy both the needs of markets and stakeholder expectations.

While a variety of definitions of the term strategy have been suggested, this paper will use the definition proposed by Kourdi (2015) who referred to strategy as the process of scanning, selecting and determining activities for a company to attain more profit and success. For SMEs that are going to adopt e-commerce, it is extremely important to develop an e-commerce strategy since it encompasses an identification of possibilities to achieve goals, resource divisions, strategic options to compete against competitors, and a long-term plan for the growth of the enterprise (Fan, 2019).

2.9 Summary

This chapter provided an overview of the literature which underpins the study. Developments in the area of e-commerce in the SME industry and a summary of e-commerce adoption globally as well as developing countries have been reviewed. The review has indicated that governments all over the world have a significant role to play in promoting economic development, which explains why Namibia has tried to put in place various laws and policies aimed at empowering SMEs so that they can also participate in the mainstream economy by leveraging the use of e-commerce.

The literature indicates that Namibia currently allows SMEs to utilise e-commerce through various platforms. Nevertheless, this chapter highlighted that despite the law allowing the utilisation of e-commerce by SMEs, there are multiple challenges hindering adaption of e-commerce by the SMEs. The problems are mainly associated with organisational, financial, technical, as well as legal and regulatory challenges. The literature also found that TAM, DIT and PERM are some of the models used in the conceptualisation of whether SMEs or an individual is capable of adapting a particular technology such as e-commerce. These models are central in achieving objectives of this study. The next chapter discusses the methodology used to conduct the present study so as to achieve the research objectives.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

Chapter Two reviewed literature that will guide the discourse of the study on challenges faced by SMEs in utilising e-commerce globally and in particular in Namibia. SMEs all over the world play an essential role in economic development through e-commerce utilisation. This chapter discusses the research methodology used in the study to investigate and interrogate the challenges faced by SMEs in utilising e-commerce. This chapter covers the strategy of the research, approach used, data collection methods that include the sample selection and the type of data analysis used. The section also covers ethical considerations.

3.2 Research Design

The term “research design” can broadly be defined as the overall plan of a researcher towards answering the research questions (Saunders, Lewis & Thornhill, 2012). According to Creswell, (2014, p. 31) “one of the most important steps in designing research is to determine a research approach for accomplishing research from the wide-ranging assumptions to specific data collection methods, data analysis, and data interpretation”. This research is based on a qualitative research method. According to Yin, (2011, p. 261) qualitative research “allows a study to gain a comprehensive understanding of the topic through researching about it from the fieldwork so that increasing the opportunity of ascertaining or exposing new ideas and explanations that were not mentioned in the theoretical discussions”.

Design means that there is a need to find the most suitable research strategies for answering the research questions and objectives (Saunders *et al.*, 2012). The research design applied in this research is a single-case study concentrating on analysing a single unit (Saldana, 2011, p. 8). By conducting a single-case study, Creswell (2014, p. 43) explains that “the study examines the research questions more fully in an actual context to discover new information

so that the main findings contain more valuable points". Therefore, it is critical to choose a case which is relevant to the research, its nature and context. This study selected the SMEs at the Bokamoso Incubation Centre in the City of Windhoek, Namibia.

A research design can either be exploratory, descriptive, or explanatory (Schoonenboom & Johnson, 2017). A study using exploratory research design stresses the importance of comprehending what is happening; pursuing new insights; asking questions and assessing phenomena in a new light (Creswell, 2014). This study applies an exploratory research design because it attempts to provide not only theoretical answers but also practical answers to the research questions through the discussion with experts in the field by interviewing them (Saunders *et al.*, 2012). In this study, this is the preferred research design selected to enquire into the challenges faced by SMEs at Bokamoso Incubation Centre in Windhoek on adoption of e-commerce as to date, the researcher could find very little existing research on the subject matter in Namibia.

3.2 Population

This study population covered 41 SMEs hosted by the City of Windhoek (CoW) at the Bokamoso Entrepreneur Centre. An eligibility criterion specifying the characteristics that people in the population must possess in order to be included in the study was used for selecting participants. In this study, the participants had to be familiar with e-commerce and had to be SMEs incubated by at the Bokamoso Incubation Centre by the CoW.

3.3 Sample

Non-probability sampling was used to determine the sample. Selection of the sample was based on purposive sampling. A general recommendation for in-depth interviews is to have a sample size of 20-30 respondents (Baker, Edwards & Doidge, 2012). The researcher chose the

appropriate sample size for this study to be 30 respondents. According to Palinkas, Horwitz, Green, Wisdom, Duan and Hoagwood (2015) purposive sampling is a form of non-probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their study. The interviewees in this research were selected purposively instead of applying randomisation for the sake of assuring that informants had the best knowledge regarding the topic.

3.4 Research Instrument

The primary data collection instrument, the interview guide, employed to collect primary data in this study comprised semi-structured and non-structured interview type questions. The data collection also involved in-depth interviewing and focus groups (Yin, 2011, p. 134). Semi-structured and non-structured interview questions were developed based on the framework on barriers to the adoption of e-commerce. Non-structured questions were used because they allowed the respondents a chance to provide more meaningful information that the researcher might not have considered.

3.5 Procedure

To collect the data, all participating SME owners or managers were interviewed, and their participation was voluntary. The interviews were in three sections: Section A included bio data of the respondents such as gender, position, and education and other necessary identification and categorisation information. Section B looked at SME owners/managers' perception towards the importance of e-commerce barriers that affected their businesses. Section C looked at the type of e-commerce applications used by the respondents. Interviews took an average time of 25 minutes per respondent. For consistency, the primary language of the interview sessions was English.

3.6 Data Analysis

According to Yin (2011) there are two main approaches which can be applied to analyse data. Analysis can either use a deductive approach or an inductive approach. In quantitative data analysis, the use of a deductive approach implies that this process applies a predetermined theoretical or descriptive framework to analyse data (Benitez-Correa, Gonzalez-Torres & Vargas-Saritama, 2019). In contrast, the application of an inductive approach in qualitative data analysis indicates that this process explores qualitative data without any theoretical or descriptive framework (Saunders et al., 2012). Inductive content analysis is a qualitative method of analysis that researchers use to develop theory and identify themes by studying documents, recordings and other printed and verbal material. The qualitative data analysis process in this research follows the model advocated by Yin (2011), which discourses four significant steps to analysing qualitative data: The first step is to gather the necessary information from the fieldwork. The second step is to classify the collected data by topics and then interpret the data to describe and find the meanings of the events before concluding the findings of the research (Yin, 2011).

After data collection, classification of data collected from the interview into themes was carried out. According to Castleberry and Nolen (2018), thematic analysis is a flexible data analysis method that qualitative researchers use to generate themes from interview data. The themes were designed per the research questions to include the extent of utilisation of e-commerce, the benefits to business operations of adopting e-commerce, barriers to SMEs in adopting e-commerce, and recommendations to SMEs, coming up with an e-commerce strategy. After the arrangement of themes, the next step then interrogated the data to answer the research questions.

The data analyses only involved Microsoft Word and Microsoft Excel. The textual data was transferred from transcribed Word files into Excel, and by using a few common Excel functions, the text was then organised for coding. After coding in Excel, the data was sorted by content and transferred back to Word. The text was separated into chapters and sections because the actual codes were transformed into headings in the text. The structure in Word (Heading 1, Heading 2, and Heading 3) was used to structure the text into main categories, topics, and subtopics. In the results, the question asked by the interviewer appears immediately in front of the quote. With all quotes on the same topic and subtopic collected in the same place in a document, it was relatively easy to read through the text on a specific topic and write an introduction based on what all the respondents had said. The quotes are already in the document, so it was easy to evaluate them and choose which to use in the text: the most common, most accurately formulated, or those that provided the most important knowledge.

3.7 Research Ethics

Permission: The researcher provided respondents with assurances of anonymity and confidentiality. A permission letter to conduct research was also obtained from CoW.

Informed Consent: According to Bok (2017), informed consent allows for the confirmation of autonomy among all research participants in the form of document signing by the subjects; it relays all pertinent and relevant research information, such as risks and benefits allowing them to make an informed decision regarding participation. With this in mind, in this research, interviewees were informed about the purpose of the research as well as their roles in accomplishing the research. Subsequently, provision of the opportunity to the participants to withdraw from the study was also an option (Saunders *et al.*, 2012). Thus, the study

ensured the understanding of the information provided by potential participants and empowered them to make voluntary decisions about whether to participate in the study or not.

Privacy: Interviews can raise privacy concerns because they involve interacting with participants in their contexts. Privacy is understood by Peter (2015, p.2625) to be “an individual’s right to be free from intrusion and interference by others”. Therefore, Saunders *et al.*, (2012) added that interviews could intrude upon or interfere with participants’ personal and sacred places, their physical privacy, along with their associational privacy. Therefore, no participant was forced to reveal information to the researcher that the participant did not wish to reveal.

Confidentiality: Confidentiality is equally essential and refers to information about the person revealed to the researcher. According to Peter (2015), safeguarding information is a crucial part of the relationship of trust and respect that exists between the researcher and the participant. Depending on the type of study, personal identifiers such as names, may or may not have to be collected. If collected, researchers may take several steps to ensure the confidentiality of their participants’ information (Petrov, Dewing & Camilleri, 2016). Therefore, the use of participant codes to label data instead of using names and keeping a separate list of code-to-name matchups and no publication of information that allowed participant identification was ensured. The report avoided associating responses with specific individuals to protect their anonymity. The data is being stored at the Ministry of Agriculture, Water and Forestry office for 5 (five) years and when no longer required will be destroyed by shredding.

3.8 Summary

This chapter describes the research design employed in this study. The chapter also discusses the population of the study and how the purposive sample was selected for participation in the study. This study adopted a qualitative method. The data was collected using an interview guide with semi-structured and non-structured questions. The next chapter presents the results of the study, their discussion, and the findings of the research.

The SME owners surveyed at Pakarua were into businesses such as logistics, transport, trading, construction, ICT, food and beverage, retailing and retail markets. The SMEs also indicated how long they have been conducting their business. Long-term business

However, most of the SME owners, especially those dealing with food and beverage, indicated that they had not utilised e-commerce. But those who conducted their business used e-commerce since as far as 2010. The next section presents various themes regarding why the SMEs did not use driving force for e-commerce adoption in their business.

4.2 Drivers of E-commerce Adoption

This interview section explored the driving force for e-commerce adoption from the SMEs surveyed. Various driving forces such as business demand and internal support were identified as they can be observed in Figure 4-1 and they are explained in more detail below.

Table 4-11 Driving forces of e-commerce adoption

CHAPTER 4 : RESULTS AND DISCUSSION

4.1 Introduction

This chapter explores the themes and gives a comparison of the views by SME owners through data analysis and discussions. The aim of this research was to explore the challenges faced by SMEs in utilising e-commerce. Eighteen (18) SMEs were interviewed, and their responses have been categorised into themes based on the research questions.

The SME owners interviewed at Bokamoso were into businesses such as logistics, corporate branding, Construction, ICT, food and beverages, tailoring and mini markets. The SMEs also indicated how long they have been conducting their business using e-commerce.

However, some of the SME owners, especially those trading with food and beverages, indicated that they had not utilised e-commerce, but those who conducted their business used e-commerce from as far as 2010. The next section presents various themes regarding who the SMEs felt was the driving force for e-commerce adoption in their SMEs.

4.2 Drivers of E-commerce Adoption

This interview question investigated the driving force for e-commerce adoption from the SMEs surveyed. Within this question, themes such as business demand and external support were identified as they can be observed in Figure 4-1 and they are explained in more detail below.

Table 4-1: Driving forces of e-commerce adoption

Codes	Sub-themes	Themes
Driver1_ecom_1	Business expansion	Market Forces
Driver1_ecom_2	Online trade expansion	
Driver1_ecom_3	Online trade/business	
Driver1_ecom_4	Market demand	
Driver2_ecom_1	Managers	Business owner
Driver2_ecom_2	Directors	
Driver3_ecom_1	Consultants	External parties
Driver3_ecom_2	Internet	
Driver3_ecom_3	IT specialists	
Driver3_ecom_4	Regulatory bodies	

4.2.1 Market Forces

Through thematically analysing all participants' views, a common theme, categorised "Market Forces" is coming out as a result of the fact participants believe that market demands drive the SMEs at Bokamoso into adopting e-commerce. According to Ho (2013), many e-commerce sites have built-in commerce systems to help them reach prospective and established customers.

To begin the discussion, P5 suggested; "Popular use of online business is the driving force of SMEs for sustainability". P1 also suggested; "Market expansion." P4 suggested the "expansion of online trade". These suggestions support findings from the literature review by Al-Bakri and Katsioloudes (2015) who found SMEs in Jordan adopted e-commerce due to the demands of trading partners. This clearly highlights how important it is for business to respond to market trends such as adopting e-commerce. These findings are supported by Mohammed, Almsafir and Alnaser (2013), who observed that the only external factors that still have considerable influential power in this level of adoption are the market forces' e-readiness. The adoption of e-commerce by SMEs is therefore a strategic response to remain aligned to the demands of the markets.

4.2.2 Business Owner

Through thematic analysis, another theme identified business owners as a factor that forces SMEs to adopt e-commerce. P15 indicated that “the director (myself)” is responsible for e-commerce adoption. SMEs at Bokamoso highlighted that management support should be geared towards e-commerce use in their businesses. Lip-Sam and Hock-Eam (2011) noted that organisational factors such as Chief Executive Officers (CEO) educational level and frequent use of computers were influential factors for e-commerce adoption. For example, P7 stated, “It is my partner and me.” According to Abou-Shouk, Lim and Megicks, (2016), top management support and commitment is a crucial organisational component that has often been considered essential in e-commerce adoption. This is because management is responsible for providing the financial resources necessary for e-commerce and is responsible also for cultivating an organisational climate conducive to adopting e-commerce.

4.2.3 External Parties

Another theme that emerged with regards to driving forces for e-commerce adoption is external parties. P12 is of the idea that the drivers of SMEs should be “Consultant Company” while P16 said that “the media team that is well vested with information communication technology.” Lastly, P17 noted that the “Ministry of Trade and Industry” should be responsible. This outcome is an indication that SMEs are of the view that external parties drive e-commerce adoption such as the Ministry of Trade and Industry. For example, the Ministry is already playing the central role of regulating the Namibian economy. This theme is also supported by the literature. Al-Bakri and Katsioloudes (2015) found perceived usefulness and external pressure as factors that affect the adoption of e-commerce. In a study conducted in Saudi Arabia, Al-Hudhaif and Alkubeyyer (2011) found that the first step in the adoption of e-commerce is heavily dependent on external factors mainly factors related to

market forces. Similarly, market forces are one of the drivers that SME owners identified as a massive driver of e-commerce adoption.

4.3 E-commerce Adoption by SMEs

This section determines the reason why e-commerce is being utilised by SMEs incubated at the City of Windhoek. Table 4-2 indicates the themes that were derived from the interviews, and they are international market, reduced costs, large customer base and marketing opportunity.

Table 4-2: Reasons for SMEs adopting e-commerce

Codes	Sub-themes	Themes
e-com1_adop_1 e-com1_adop_2	Global reach International trade	International market
e-com2_adop_1 e-com2_adop_2	Less expensive Cheaper	Reduced costs
e-com3_adop_1 e-com3_adop_2 e-com3_adop_3	More customers on the Internet Wide customer base Many people	Large customer base
e-com4_adop_1 e-com4_adop_2 e-com4_adop_3 e-com4_adop_4	Product marketing Business promotion Business awareness Expand business opportunity	Marketing Opportunities

4.3.1 International Market

Kwadwo, Martinson, Evans and Esther (2016) noted that e-commerce platforms have a significant impact on the operations of SMEs by facilitating their access to global markets, enabling them to sell to international customers and to compete favourably with large corporations. SMEs at Bokamoso Incubation Centre suggested that there is a combination of themes that make up the reasons why they adopted e-commerce such as international markets and that e-commerce can offer global reach. P16 said that SMEs adopt e-commerce because it “allows

trading from anywhere in the world and from the comfort of your own home". P4 noted that one could "cover the globe fast" and P1 added that this allows "business expansion to the international market." These findings are supported by Maulany (2019) who claims that even if SME owners think that their business need to stay local, expanding globally through e-commerce could allow them to expand into new facets of their businesses.

A study conducted by Clozy (2016) indicated that e-commerce has the potential to help SMEs scale-up and expand their outreach in ways such as building an international reputation, expanding outreach and reducing market research costs. According to Al-Hudhaif and Alkubeyyer (2011), success in serving multinational clients by SME owners requires appropriate capabilities in logistics in order to establish an online business, international e-payment and cross border delivery.

4.3.2 Reduced Costs

Another theme identified by SMEs at Bokamoso in the adoption of e-commerce was on lower costs. The supportive theme can be identified in P11 suggesting that "It is a cheaper way to contact customers and suppliers." Literature has also spoken on reduced market research cost by stating that with e-commerce websites involves analyses users' browsing history to assess what type of product consumers are looking for and then automatically suggests similar products (Clozy, 2016). Similarly, reaching international customers through e-commerce helps SMEs expand their outreach as it reduces the investment required for a company to become visible in the global market (Şener, Savrul & Aydın, 2014).

P18 identified rental costs by offering the suggestion that "It is less expensive as you don't need to pay high rentals and since the business is open 24/7 there is potential income". These findings show the feelings that SME owners have towards lowers costs in adopting e-commerce

which corroborates observations by Ho (2013) who found that it requires a lower cost to run an online store because you can save on staff, rent and sales on advertising.

Niranjanamurthy *et al.* (2013) noted that the application of any e-commerce facilitates the expansion of a business into the international marketplace, lowers operational and telecommunication costs. With regards to reduced costs, literature shows that many businesses are making the transition to integrated e-commerce business operations and this is being done with the expectations of lowering operational expenses (Şener *et al.*, 2014). The supportive theme found in this study is of importance as it suggests an element of what SMEs need to consider when deciding why to adopt e-commerce to enhance their businesses.

4.3.3 Large Customer Base

According to Jahanshahi and Zhang (2013), e-commerce can be used to reduce barriers of entry into different market segments exposing SMEs to a broader customer base. Another theme identified through the thematic analysis was the large customer base being considered as the reason for e-commerce adoption. The large customer base was mentioned by P7 who noted that “the world is moving to the internet and the majority of people are on social media and thus making it easier to look for customers”. SME owners identified that having e-commerce makes it easier to find customers and supplies, P1 suggesting that the “variety of customers is large, and they can bulk buy products”. However, studies by Saif-Ur-Rehman (2016) explains that e-commerce systems can only be of value in bringing in customers options if businesses choose a system that is compatible with the suppliers and customers.

4.3.4 Marketing Opportunities

Another theme identified when considering e-commerce utilisation by SMEs within the interview sessions was how the SMEs use e-commerce as a marketing opportunity. The marketing

opportunity theme can be identified by P12 suggesting it “increases the awareness of my business to many” and, P2 supported this view offering the suggestion that e-commerce it the gives opportunity “to promote my business to the community and outside Namibia.” P10 then further supported this promotional trait by suggesting that e-commerce allows you “to expand business opportunities through increased exposure.”

These findings show the feelings that SME owners have towards how they utilise e-commerce at Bokamoso. It is supported by Şener, Savrul and Aydın (2014) who found advertising and marketing are the principal activities associated with having a Web site. It shows that although there are factors hindering SMEs from hindering the utilisation of e-commerce, they are not letting go of the positive extent to which e-commerce is being utilised by SMEs incubated at the City of Windhoek.

Another SME owner P7 is of the opinion that “the world is moving to the internet and the majority of people are on social media and thus making it easier to look for customers”. These findings are supported by Jahanshahi and Zhang (2013) adding that SMEs owners who ignore social media are basically handing customers to their competition and if they want to stay in business, they need to adopt social media.

4.4 Barriers to the Adoption of E-commerce

This section determined the challenges affecting the adoption of e-commerce by SMEs incubated at the City of Windhoek. This is listed in terms of organisational barriers; financial barriers; technical barriers; legal and regulatory barriers.

4.4.1 Organisational Barriers

Table 4-3 provides organisational barriers as determined through thematic analysis. The themes identified include the lack of employee knowledge, infrastructure, and perceived need on e-commerce, organisation culture and planning and technology-related trust issues.

Table 4-3: Organisational barriers

Codes	Sub theme	Themes
Org1_Barrier_1	Lack of human skills	Lack of employee knowledge
Org1_Barrier_2	Unskilled employees in e-commerce	
Org1_Barrier_3	Lack of capacitated staffs	
Org2_Barrier_1	Lack of time and reliable systems	Lack of infrastructure
Org2_Barrier_2	Cost to develop a secure and robust website	
Org3_Barrier_1	Resistance to change by management or staff	Lack of perceived need for e-commerce
Org3_Barrier_2	Customers are too few for such system	
Org3_Barrier_3	Finding the right market	
Org3_Barrier_4	It is highly competitive	
Org4_Barrier_1	Cultural barriers	Lack of organisation culture and planning
Org4_Barrier_2	Doughty of desired mission or vision	
Org4_Barrier_3	No one determining the tasks	
Org5_Barrier_1	Online payment fraud	Technology related to trust issues
Org5_Barrier_2	Card abandonment	
Org5_Barrier_3	A difficult selecting genuine online organisation	

4.4.1.1 Lack of Employee Knowledge

There were also some barriers identified when considering the theme of organisational barriers hindering SMEs adopting e-commerce such as from P15 who identified the fact that computer literacy levels of employees are causing the slow pace of e-commerce culture adoption by employees. Clozy (2016) is of the idea that familiarity with computers, Internet and related technologies is essential for engaging in e-commerce, and technological skills are required to ensure technical security to prevent fraud, information leaks, and all other forms of attack that can undermine foreign consumers' confidence in the use of e-commerce solutions.

P6 mentioned the lack of personnel with e-commerce skills. From this it is clear there is an element of lack of employee knowledge involving lack of e-commerce adoption. This corroborates Jahanshahi and Zhang (2013) who investigated barriers to e-commerce adoption in Iran, Malaysia and India and concluded that lack of knowledge and understanding of e-commerce is a significant organisational barrier.

These findings are indicating the need for increased awareness about e-commerce, adequate training and skills upgrading for SMEs to better benefit from e-commerce technologies. However, a study conducted by Clozy (2016) has shown that sellers do not have to be world-class programmers to build an online business, but they do need to at least understand how essential web technologies work such as setting up an email account or using online communication.

4.4.1.2 Lack of Infrastructure

Through thematic analysis another theme identified was lack of infrastructures as an organisational barrier towards e-commerce adoption for SMEs. This theme takes into consideration the idea that having the right IT infrastructure allows SMEs to thrive towards the utilisation of e-commerce. As Ho (2013) suggests the creation of an e-commerce website demands a website's interface, a content and a web service infrastructure in order for SMEs to make a profit from e-commerce. Concerns from participant P9 were that there is the "lack of time and reliable systems as well as few customers for the e-commerce system" while P8 claimed that there is an "inadequate technological advancement".

Lastly, P5 is of the idea that the "cost to develop a strong and secure website" is high. This identifies that in the view of SME owners, they see themselves not utilising e-commerce because of the lack of infrastructures. By not having infrastructures to support e-commerce

adoption have various negative outcomes. According to Clozy (2016), SMEs that want to be competitive in cross-border e-commerce need access to cost efficient infrastructure such as of stable power supplies, good telecom services, wide penetration and low cost of Internet connections, good internet security, adequate quality and speed of lines, as well as good physical infrastructure itself. Lack of reliable systems, slow internet connections are some of the infrastructure issues mentioned by the participants.

4.4.1.3 Lack of perceived need on e-commerce

A further theme found was the lack of perceived need for e-commerce as an organisational barrier hindering e-commerce adoption. The theme of the need for e-commerce re-occurred often throughout the interview, with P16 suggesting “resistance to change by management or staff” while P2 is also presenting “finding the right market and it is highly competitive.” It is interesting to see that focus groups identified need as an area of significance as Ali and Alrayes (2014), is of the idea that the most significant investment in an organisation in adopting e-commerce is not technical, but, initially, involves getting together to ascertain needs and select the standards according to which this information will determine the need for e-commerce.

The findings from this theme have indicated that each SME owner incubated at Bokamoso needs to undergo an e-readiness assessment. In the context of Bokamoso SMEs e readiness is required by SMEs to expand domestically and internationally so that they can compete readily in the global open market (Wanjau et al., 2012). Thus, perceived readiness should be a factor that every SME need to understand in the context of their individual business.

4.4.1.4 Lack of Organisational Culture and Planning

The lack of organisational culture and planning was identified as a different theme within the organisational barriers towards e-commerce adoption. To analyse the participants' suggestions surrounding the lack of organisational culture and planning, Kuppens and Hekkert (2019) noted that the implementation of e-commerce strategy in an organisation will generate unexpected results if there are unsolved conflicts, unsupportive corporate culture, and deficiencies in communication and coordination. Thus, P7 mentioned that in their SME there is “no one determining the tasks” pertaining to e-commerce adoption.

Studies have indicated that organisational culture can be a limiting factor in the acceptance of technological change and has also been linked to organisational performance (Kidane & Sharma, 2016). They conclude that higher levels of IT-enabled business transformation involve higher degrees of change in organisational routines. Cultural practices are important factors that could act as a stumbling block for the progression of e-commerce in developing countries because many aspects of technology are not culturally neutral (Ho, 2017).

Organisational culture is also a significant factor in organisational performance.

4.4.1.5 Technology Related Trust Issues

Another theme that was evident through thematic analysis from interviews conducted was that of technology-related trust issues. This was suggested by participants saying: “No guarantee of product quality, and it is difficult to select genuine online organisation” (P4). Within the context of the discussion, this suggestion can be directly linked to lack of trust of online businesses by customers in some instances.

P13 highlighted another viewpoint of technology-related issues stating the “lack of trust, online payment fraud, and card abandonment”. This viewpoint suggests the overall importance of the

critical need for SMEs to have reliable and secure e-commerce systems. The research reveals the significance of trust and security problems associated with the adoption of e-commerce in Namibia.

4.4.2 Financial Barriers

Concerning the financial barrier in the SME sectors, as indicated in themes in Table 4-4, the barrier items include high implementation cost, the uncertainty of payment methods, inaccessible payment methods and the lack of capital.

Table 4-4: Financial barriers

Codes	Sub themes	Themes
Fin1_barrier_1 Fin1_barrier_2	High training cost High data cost	High implementation cost
Fin2_barrier_1 Fin2_barrier_2 Fin2_barrier_3 Fin2_barrier_4	Scammers Unsecured payment method Longer time to receive funds Untraceable funds	Uncertain payment methods
Fin3_barrier_1 Fin3_barrier_2	Some payment platforms unavailable Credit cards not authorised	Inaccessible payment methods
Fin4_barrier_1 Fin4_barrier_2 Fin4_barrier_3	Insufficient funds Lack of capital Do not qualify for bank loans	Lack of capital

4.4.2.1 High Implementation Cost

High implementation cost was a theme consistent throughout the interview; P16 suggested that “huge capital in hardware and software and training staff.” This is supported in the research by Zaied (2012) who claims that electronic business technologies involve high implementation cost and Chang *et al.* (2015) added that SMEs typically have limited resources and are often on tighter financial constraints. P11 identified the “lack of getting a loan from the bank” as a barrier.

According to Zaied (2012), inability by SMEs to develop a return on investment is also a challenge that's why P18 suggested that e-commerce is “highly competitive and there is a huge investment to stay in the market.” Thus, some organisations are not aware of the appropriate techniques used to evaluate the investment potential of e-commerce (Viinikka, 2019). Thus, SMEs at the Bokamoso Incubation centre can cut the high cost of e-commerce implementation by adopting a better model as well as getting a good project manager.

4.4.2.2 Uncertainty of Payment Methods

Uncertainty of payment methods was a theme identified in this study as a financial barrier hindering e-commerce adoption. P5 is of the opinion that the uncertainty of payment methods is a result of “challenges of scammers and hackers”. Another study by Olusegun (2012) stated that the lack of security is still the barrier. P6 added that “some buyers’ credit cards are not authorised”.

These findings were supported by Ibrahim, Feisal, Ismail, Amer and Baharuddin (2020) who noted that the main concern is the security payment such as credit card along with lack of privacy by spreading confidential detail over the Internet and hacker intervention that can illegally have access to company computer that becomes the major barriers of e-commerce adoption. This is an indication that training programmes on how to start a safe online purchase on the Internet should be offered to SMEs and their customers as this can boost the buyers' confidence and trust in purchasing. According to Amornkitvikai and Lee (2020), there is a difference between belief in goods and trust in purchasing online products and therefore more accessible, affordable, and secured e-commerce platforms should be offered to SMEs.

4.4.2.3 Inaccessible Payment Methods

Another theme found through thematic analysis was inaccessible payment methods. The interviewee from SMEs incubated at Bokamoso Incubation centre such as P1 suggested that “some payments require PayPal that is not allowed in Namibia”. These findings are supported by Dahbi and Benmoussa (2019), who claimed that the lack of online payment processes is known to hinder e-commerce adoption.

Barriers at this stage relate to the financial transactions that will occur on the e-commerce platform. In a study conducted on Business-to-Consumer e-commerce in Nigeria (Ayo, Adewoye and Oni, 2011), it was found that Internet fraud coupled with the lack of trust of payment methods, insufficient information on the e-commerce website, and the high cost of accessing the Internet were major impediments towards e-commerce adoption in Nigeria. Barriers at this stage relate to the financial transactions that will occur on the e-commerce platform.

4.4.3 Lack of capital

Lack of capital was one of the themes identified under the financial barriers facing SMEs. P9 explained that their SMEs have a “low bank account and income” that is causing the financial barrier to e-commerce adoption. P10 is of the opinion that their SME is having challenges with “costs associated with transport cost, bank charges and cost of reaching out to media platforms”.

These findings are corroborated by Amornkitvikai & Lee (2020) who in their studies explained that the most significant barrier to e-commerce adoption is access to capital for start-up. Ikumoro and Jawad (2019) also identified the absence or insufficient financial resources as a barrier.

4.4.3 Technical Barriers

Lack of e-commerce knowledge, trust and security, internet connection issues, logistical issues and unreliable e-commerce systems are the technical barriers identified in Table 4-5 below.

Table 4-5: Technical barriers

Codes	Sub-themes	Themes
Tech1_barrier_1 Tech1_barrier_2	Customers unfamiliar with the Internet Lack of exports in e-commerce	Lack of e-commerce knowledge
Tech2_barrier_1 Tech2_barrier_2	Hacking/interception of systems Untraceable funds	Trust and security
Tech3_barrier_1	Internet connectivity issues	Internet connection issues
Tech4_barrier_1	Delay in product delivery	Logistical issues
Tech5_barrier_1 Tech5_barrier_2 Tech5_barrier_3	Unreliable system Un expected server shutdown down Constant system repair and maintenance	Unreliable e-commerce systems

4.4.3.1 Lack of E-commerce Knowledge

Sellers do not have to be world-class programmers to build an online business, but they do need to at least understand how basic web technologies work as P11 said that it is hard to “get experts on the field”. According to González (2016), sellers such as SMEs do not have to be world-class programmers to build an online business, but they do need to at least understand how basic web technologies work. Lack of technical know-how as evidenced in this study showed that although all the employees of the SMEs generally did not have basic ICT skills, there were some with basic computer literacy and technical skills. However, these employees

and the organisation as a whole sometimes lacked e-commerce knowledge. The lack of knowledge does not only apply to employees and the organisation, but it also lacks in the customers.

A study conducted in Kenya has revealed that the factors that can affect the adoption of e-commerce in the country also include the manager's knowledge of IT (Mohammed *et al.*, 2013). Evidence in this study showed that SMEs need expert skills in e-commerce. However, this study did not go into details into the type of expertise that is lacking in the SME owners at Bokamoso Incubation Centre.

4.4.3.2 Trust and Security

Through thematic analysis, the theme of Trust and Security as a technical barrier was identified. P18 explained that "hacking/interception of systems" is a barrier towards e-commerce adoption. According to Amornkitvikai and Lee (2020), trust is essential based on the potential use of technology to increase information sharing. Trust among the trading partners in electronic commerce reinforces the prospect of continuity in a relationship. However, P5 indicated that they have experienced trust and security issues as "cyber hackers (lack of security) and untraceable money not reaching the source". These findings have been noted by Kwadwo, Martinson, Evans and Esther (2016) who in their study found that SMEs in Ghana experience insufficient security for online credit payment and transactions as well as inadequate security to prevent hacking and viruses in relation to e-commerce.

4.4.3.3 Logistical issues

The study also identified the perceived impact on logistics-related processes on e-business adoption. A research done in some African countries has indicated that there is a need for a

network of quality infrastructure, technology, and logistics networks to supply and deliver these new customers (Elsmani, Rahim & Mohammed, 2017). In Europe, competition is strong with key players such as Amazon, discount and mass-market retailer acting as technology and logistic network to combat logistical issues (Wen & Guy, 2019). Moreover, Wen and Guy (2019) has Africa has an electronic commerce potential of 50% given the delay in logistical infrastructure. This study shows that Namibian SMEs face logistical obstacles of delivery which results in barriers associated with lack of growth of electronic commerce and geographical constraints. These perceptions are in agreement with Amornkitvikai and Lee (2020) that transportation facilities in most developing countries are too poorly designed to deliver timeously for e-commerce.

4.4.3.4 Unreliable e-commerce systems

The general perception was that the lack of reliable, accessible internet services was the main hindrance to e-commerce. P14 explained that “internet problems from the service providers and sometimes the servers go down” making the e-commerce systems unreliable. These findings are supported by Ekanem (2016) who explained that when traffic on the Internet is slow or interrupted your online business suffers as customers can’t reach the buyer or they lose interest when the system doesn’t load. P18 also explained that “in the event that the system is down, no one can buy and customers themselves may also be unfamiliar with the internet”. Thus, the e-commerce systems for SMEs at Bokamoso are underdeveloped to meet the company’s needs for systems reliability.

4.4.4 Legal and Regulatory Barriers

Table 4-6 lists the legal and regulatory barriers themes identified during thematic analysis. The themes identified include the lack of legal privacy protection standards, cross border restrictions and payment restrictions.

Table 4-6: Legal and regulatory barriers

Codes	Sub themes	Themes
Legal1_barrier_1	Lack of privacy protection standards	Lack of legal privacy protection standards
Legal1_barrier_2	Untraced transactions	
Legal1_barrier_3	Hacking online shops	
Legal2_barrier_1	High duty costs at borders	Cross border restrictions
Legal2_barrier_2	Delivery regulatory rules	
Legal2_barrier_3	High restrictions on shipments	
Legal2_barrier_4	Delivery delays and loss	
Legal3_barrier_1	Prohibited payment accounts	Payment restrictions
Legal3_barrier_2	High surveillance and payment restrictions	

4.4.1 Lack of legal privacy protection standards

The respondents are concerned with regards to legal and regulatory issues that are related to the lack of legal privacy protection standards, as this was one of the themes identified. This theme was supported by P5, who claims that "hackers target web shops more often than you think". In addition, these findings are supported by Saif-Ur-Rehman (2016), who stated that assuring security and draft laws on an e-digital signature can strive to combat crimes in the area of computer information.

P5 said that the Namibian "government laws are still silent towards scammers and hackers". Kwadwo, Martinson, Evans and Esther (2016) claimed that countries that do not concern themselves on the computer crime or secure online transaction would prevent the organisation from adopting e-commerce. This is because there is a need for secure forms of payment in e-

commerce transactions that can credit cards, checks, debit cards, wire transfer and cash on delivery (Zaied, 2012). Thus, the lack of legal privacy protection standards in Namibia is hindering e-commerce adoption.

4.4.2 Cross border restrictions and Regulations

Another theme identified was the cross-border restrictions. According to P2, there is “cross border restriction and payments” that hinders e-commerce adoption. A report by Duch-Brown and Martens (2015) indicated that the physical flow of goods across borders resulting from e-commerce trade is facing increasing challenges in terms of the cost and time of border formalities. Thus, P18 is of the opinion that "shipment of products has a lot of requirements that should be met with unexpected changes in regulation/ instruments which may lead to some delays in delivery of products and loss".

According to Fang (2017) successful e-commerce requires a reliable system to deliver goods to the business or private customer because customers may be attracted by the convenience of ordering online, but if their purchases are not delivered in a dependable and prompt manner, this advantage of e-commerce may be lost. P1 also had a concern with the “expenses on shipping and a lot of paperwork”. This is a clear indication of cross border restrictions causing slow product delivery.

These cross-border restrictions also play a role in the restriction upon purchasing certain products, and other products may be restricted for political or cultural reasons with a similar effect (Fang, 2017). Cross-border delivery depends critically on countries’ transport infrastructure and customs clearance practices. Finally, e-commerce may demand new rules for consumer protection.

4.4.3 Payment restrictions

A payment restriction was identified as an e-commerce adoption barrier with regards to regulatory barriers. P6. is of the idea that payment systems such as “PayPal account are prohibited in Namibia and restricted.” These findings are supported by Saif-Ur-Rehman (2016), who claims that the absence of methods of secure forms of payment will prevent true virtual transactions from taking place. In addition, a survey conducted in Brazil has indicated that the low rate of e-commerce adoption was related to government regulations such as anxiety about privacy and security, lack of business laws for e-commerce, insufficient legal protection for internet purchases and concern over internet taxation (Zaied, 2012).

However, P 14 also added that “too much surveillance and restrictions by the bank of Namibia” indicating that the central bank of Namibia also has payment regulations in place hindering e-commerce adoption. Countries in West Africa have overcome this barrier as the Central banks and regulators, such as the Central Bank of West African States, have taken measures aimed at reducing transactions costs of electronic payments, boosting uptake of cashless e-government solutions, for example, for the provision of monetary transfers to the most vulnerable groups (Allam, 2020). Thus, the Central Bank of Namibia needs to take measures to reduce the legal and regulatory barriers towards supporting SMEs into adopting e-commerce.

4.5 Cost Factor of Adopting E-commerce

This question tried to determine to what extent is the cost factor important in the adoption of higher-level e-technologies. The participants ranked their responses on a scale from 1 to 5, where 1 means less important, and 5 means very important. However, the respondents only label their responses into level 1, level 4 and level 5 as it can be seen in Table 4-7 below.

Table 4-7: Importance of financial factor in adopting e-commerce

Codes	Sub-themes	Themes
Finan1_factor_1	Spend on technology and increase profit	Level 3
Finan1_factor_2	Internet cost	
Finan1_factor_3	Instability in the exchange rate	
Finan1_factor_4	Legal & Regulatory	
Finan2_factor_1	Cost-effective e-technology	Level 4
Finan2_factor_2	Financial	
Finan2_factor_3	Technical	
Finan3_factor_1	Competitive market advantage the breakeven point for profit	Level 5
Finan3_factor_2	Acquire the best e-technology	
Finan3_factor_3	Constant connection	
Finan3_factor_4	Improves efficiency and effectiveness	
Finan3_factor_5	High business profit	

The responses from the participants show that there is indeed some cost factor of adopting e-commerce, and the first level identified falls under the theme level 3, although it is not so much important. P2 said that “I opt to rate it at number 3, important to use e-technology one has to use cost factors whereby you spend money to gain money simultaneously”. This is partly because information and communication infrastructure in most developing countries and African countries, in particular, is generally characterised as weak, which results in low levels of Internet usage activity (Siyao, 2012).

Another cost incurred was the instability in the exchange rate as P5 said that “Rate 3, instability of prices time and time again, especially in purchasing using US dollar rates”. This finding is supported by Bressler et al. (2018) whose findings noted that when overseas customers buy products from countries like the US, they're not going to pay the same amount as they would in their country because the exchange rates are constantly fluctuating and can reach an all-time low (or high) that will affect sales. Thus, cost factors to be considered include spending money on technology to increase revenue, internet cost to use e-commerce, instability in the exchange rate as well as legal & regulatory costs. Cost factor considered in

level 4 is mainly linked to financial required for technology such as cost-effective e-technology.

Level 5 was considered as the most important, and this theme received the most traction from the participants. P15 is of the opinion that “the cost factor is very important as it has a significant bearing on the firm's ability to acquire the best technology as well as remain connected at all times.” P18 said it is “very important because I need higher-level technology to remain in the competitive market.”

According to Shemi and Procter (2013), the cost of creating/building an e-commerce application may be very high, and there can be delays in launching an e-commerce application due to mistakes, and lack of experience. However, P7 added that “adoption of higher-level e-technologies improves the efficiency and effectiveness of various work”. “On a scale of 1 to 5, it is actually very important the cost factor plays a big role in the business as all business should be meant the breakeven point for profit P16.” Shemi (2013) supported these findings by adding that a small firm will find it very challenging to acquire such a system due to the high cost of set up.

4.6 Overcoming E-commerce Adoption Barriers

Table 4-8 is providing the most important benefits of adopting e-commerce by the SMEs incubated at Bokamoso Incubation centre. The themes that arise from this analysis include high customer reach, improving customer service, cost-effectiveness, efficiency and effectiveness as well as improving marketing.

Table 4-8: Most important benefit to e-commerce adoption

Codes	Sub-Themes	Themes
Ecom1_ben_adop_1	Increase customer turnout	High customer reach
Ecom1_ben_adop_2	Larger customer base	
Ecom2_ben_adop_1	Improve customer contact Creates strong business service.	Improves customer service
Ecom3_ben_adop_1	Lower marketing and distribution cost	Cost-Effective
Ecom3_ben_adop_2	Fewer expenses for salaries	
Ecom3_ben_adop_3	Reduction of costs of doing business	
Ecom4_ben_adop_1	Fast and efficient	Efficiency and effectiveness
Ecom4_ben_adop_2	Easy filling of e-documents	
Ecom5_ben_adop_1	Improve product marketing	Improve marketing
Ecom5_ben_adop_2	Increase marketing opportunities	
Ecom5_ben_adop_3	Awareness of product	

4.6.1 High Customer Reach

Participants have indicated that having e-commerce is beneficial because SMEs can reach many customers. According to Amwele (2013), tangible benefits of implementing e-commerce technologies included some of the already mentioned and higher sales and revenue because of new customers, new markets, repeated orders of existing customers, less marketing cost, supply chain cost, managerial cost. The high customer reach theme can be identified by P3 suggesting "Easy to locate customers, best suppliers and suitable customers across the globe" suggests the possible easy location of customers by SMEs at Bokamoso, P5 supported this view offering the suggestion that "the importance of adopting e-commerce is to boost or increasing the cash flow of the business because you will get more customers".

P7 then further supported these traits by suggesting e-commerce is beneficial because makes you feel "It is more convenient and increase your reach". These findings show the feelings that SMEs at Bokamoso Incubation centre have towards the adoption of e-commerce which supports suggestion from literature by Saif-Ur-Rehman, (2016) who found that e-commerce offers SMEs

with a high customer reach because they can have access to international markets and not just the local markets.

4.6.2 Improves Customer Service

When considering improving customer service and looking back at research found in the literature review throughout this section, it is important to consider that Savrul, Incekara and Sener (2014) suggested that building long-term customer relationships through customer satisfaction is one of the crucial keys to successful marketing including internet marketing as an organisation exists to satisfy customer wants and needs while meeting organisational objectives of increased sales and higher profit. P2 and P8 have highlighted how they view e-commerce adoption as a significant milestone when it comes to improving customer service.

P13 offered a positive input on improving customer service by saying "it creates strong business service." Overall, within customer service, the participant's view is of positive and overall e-commerce adoption by SMEs incubated attributes that SMEs are improving their relationship with the customers through e-commerce. These findings are supported by Wang, Cavusoglu and Deng (2016) who suggest that global access and the 24-hour availability of the Internet, convenience, increase product information, and the availability of special services on the Internet was recognised as ways of enhancing customer satisfaction with regards to e-commerce.

4.6.3 Cost-Effective

Another theme identified through the thematic analysis was e-commerce being considered as a cost-effective way of doing business. The SMEs at Bokamoso suggested that with e-commerce, they can "lower marketing and distribution costs" (P2). This identifies that the participants are aware of the use of e-commerce as a cost-effective measure with, P16 suggesting "less expenses

on salaries due to a low number of manpower needed” and P7 viewing e-commerce as being “Cost effective cheaper”. These suggestions give an overall view that the SMEs at Bokamoso Incubation centre view cost-effectiveness as the most important benefits of adopting e-commerce. Overall, this theme is important to the thesis as it shows the view of the SMEs has of the most important benefits of adopting e-commerce by their companies. Studies have found that tangible benefits of implementing e-commerce technologies included higher sales and revenue because of new customers (Saif-Ur-Rehman, 2016).

4.6.4 Efficiency and Effectiveness

Through thematic analysis, efficiency and effectiveness have been found as one of the themes. P17 has indicated that e-commerce is “fast and efficient by providing easy filling of e-documents”. P8 supported this claim by indicating that it “increases customer turnout and improves consumer services to enhance efficiency and effectiveness”.

Studies on the potential of e-commerce in terms of efficiency and effectiveness for SMEs asserts that by “entering e-commerce sector SMEs are able to discover new methods of adding value to new products, new services, and business models; expand their businesses into international markets; enhance their effectiveness; and co-operate with larger firms which can be their customers or suppliers or investors (Savrul et al., 2014, p. 44).”

Findings on the adoption of e-commerce in Windhoek, by SMEs incubated at Bokamoso indicate that most of the SMEs agree on the benefits of adopting e-commerce, especially in P2 “cost reduction”, P8 “timesaving”, P5 “enhanced customer service”, and P5 “increased brand awareness”. Besides, there are other comments from Vietnamese SMEs about these benefits, such as easy to seek for new customers and expand their business. (Pham, Tran, Misra, Maskeliūnas & Damaševičius, 2018).

4.6.5 Improves Marketing

The SMEs indicated that SMEs overcoming barriers to e-commerce can improve marketing and this was a theme that emerged. P3 is of the opinion that e-commerce improves marketing as it “allows the diversity of all of the notion to link and partnership” and P6 said that it “allows global trading from national to international level”.

This is an indication that e-commerce allows local SMEs to link to the global markets and in return, markets their products. However, a study conducted in Kenya has indicated that many of their SMEs lack the necessary information on market opportunities limiting them to narrow local markets; on customers and market demand due to lack of market research leading to saturated markets with goods whose demand is low (Abou-Shouk, Megicks & Lim, 2013).

4.7 Long-Term Business Strategy Change due to E-commerce

Table 4-9 is providing the themes that arise from the interviews question that determined if the SMEs at Bokamoso have any long-term business strategy because of e-commerce. The themes obtained created into themes of two made up of either yes or no.

Table 4-9: Change in long term business strategy

Codes	Themes
Buss1_streategy_1	Business expansion to the international market
Buss1_streategy_2	Create a competitive advantage
Buss1_streategy_3	Market business online
Buss1_streategy_4	To fully operate online
Buss2_streategy_1	No reason
Buss2_streategy_2	Intends to do so

The introduction of the digital economy has shifted the way of managing both businesses and the public sector, and these changes in the marketplace have encouraged managers to adopt e-commerce in order to remain strategically competitive and adopting e-commerce requires a

strategy that focusses on using resources to achieve competitive advantage (Li & Xie, 2012). On the long-term business strategy thematic area, participants indicated they do have a long-term business strategy because of e-commerce. P13 indicated that “adoption of e-commerce was delayed due to other demands in starting up a business. The financial ability to acquire relevant gadgets was also limited”.

Another SME P8 reported that “although I am aware of the benefits and barriers have not yet adopted the e-commerce into my business because of population and financial constraints and time”. The clear indication here is that SME owners are aware of the need and are in the position of a long business strategy to support their business. However, they did not implement e-commerce because of barriers such as financial. According to Alzahrani, (2019) SME owners, managers and employees need to understand and acknowledge the impact of e-commerce on their plans and strategies.

4.8 Marketing Strategy Influenced by E-commerce

This theme captured participants’ intense feelings about how their marketing strategy is influenced by e-commerce. Although participants believed that their marketing strategy is influenced by e-commerce, they also expressed that they do not include e-commerce in their marketing strategies. For example, P9 states: “Not yet in place”. But others also highlighted the reasons why e-commerce has impacted their marketing strategy: “E-commerce made a massive impact on marketing strategies for business with e-commerce, customers can be reached anywhere and can shop from anywhere (P18)”. P10 has similar thoughts: “It has to be aligned to the requirements of online business practices; I can say e-commerce is positively influencing the strategy of reaching out to people”. This shows that by including e-commerce means that the business can reach clients all over the world.

According to Shahjee (2016) e-commerce is bringing about a very big change in commerce and marketing because the use of the Internet for business marketing the goods and services

are increasing day by day and thus e-commerce is positively affecting on business marketing. Another SMEs owner added that international marketing is not the only positive outcome with regards to a SMEs strategising with e-commerce as it also has some positive financial implications. P16 added that “marketing strategy has now become more international than national, and now our marketing budgets have significantly reduced”.

P8 supported this claim by adding that “it has influenced our outreach abilities which resulted in recording turnout.” According to Alzahrani (2019), electronic service encounter between the consumer and service provider differs from the traditional physical encounters experienced in the old traditional marketing areas since there are no sale staffs and customer self-service.

4.9 Dealing with SME’s E-commerce Implementation Challenges

The study identified the strategies that the SMEs have utilised to deal with the challenges associated with your SMSs’ implementation of e-commerce in table 4-10. The themes identified include marketing strategy improved, increased clients, secured systems, easy operations, partnership and regular research.

Table 4-10: Strategies applied to overcome e-commerce implementation challenges

Codes	Sub-themes	Themes
Overcome1_e-com_Chall_1	Massive impact on marketing strategies	Marketing Strategy
Overcome1_e-com_Chall_2	Motivating customers	
Overcome1_e-com_Chall_3	Improve customer loyalty	
Overcome1_e-com_Chall_4	Digital marketing	
Overcome2_e-com_Chall_1	Customers can be reached anywhere	Increased clients
Overcome2_e-com_Chall_2	Influenced our outreach	
Overcome2_e-com_Chall_3	International and national clients	
Overcome3_e-com_Chall_1	Secured websites from hackers and scammers	Secured systems
Overcome3_e-com_Chall_2	Dealing with authentic and secure Traders on	
Overcome3_e-com_Chall_3	online platforms	
Overcome3_e-com_Chall_4		
Overcome4_e-com_Chall_1	Driven to easy operation	Easy operations
Overcome4_e-com_Chall_2	Reduced transaction cost	

Overcome4_e-com_Chall_1	Partner with other big businesses	Partnership
Overcome5_e-com_Chall_1	Alignment to online business practices	Regular research
Overcome5_e-com_Chall_2	Regular research	

4.9.1 Marketing Strategy

Another theme that was evident through thematic analysis of the interviewees was that marketing strategy for implementing e-commerce is important. This was suggested by participants saying: “Marketing strategy has now become more international than national, and now our marketing budgets have significantly reduced (P18)”. Within the context of the discussion, this suggestion can directly link to the need for SMEs to have a marketing strategy for the implementation of e-commerce. This viewpoint suggests that by having a marketing strategy, SMEs could reach out to not only national but also international clients. Support for the SME owners’ viewpoint comes from Yazdanifard (2012) with the suggestion that SMEs utilising e-commerce need some e-commerce marketing strategies to acquire new customers as well as entice old customers to keep coming back to their store.

P10 also expressed another viewpoint of attracting customers, and that was that “e-commerce is positively influencing the strategy of reaching out to people”. Lekhanya (2016) identified the important role marketing strategy has in aiming to attract customers by suggesting that most SME owners should implement digital marketing strategies. Also, suggesting and highlighting the importance of digital marketing was P6, who claimed that “we are now focusing more on digital marketing”. The findings from the interviews also further support literature from studies by Kwadwo, Martinson, Evans and Esther (2016) who suggested that one of the most important parts of branding for SMEs using e-commerce is attracting more customers online. From this theme, it can be deduced that SMEs need to consider attracting customers as part of their marketing strategy that should focus on obtaining loyal customers. As alluded to by P11 who is

using digital marketing: “it is influenced by motivating customers and improves customer loyalty”.

4.9.2 Increased number of Clients

Increased number of clients, in general, was a theme consistent throughout the interviews; P18 suggested that for “business with e-commerce, customers can be reached anywhere and can shop from anywhere”. P18 further added that “SMEs should implement systems that can give quick responses to customers because customers are not patient to wait for hours to get responses on questions asked”. This finding is in line with the findings of Saif-Ur-Rehman (2016) in explaining that e-commerce systems can only be of value in bringing in customer options if businesses choose a system that is compatible with the suppliers and customers. The support suggests that SME owners should overcome e-commerce challenges by knowing that by implementing e-commerce, they have the opportunity of increasing their clients.

In addition, P11 suggested that e-commerce encouraged motivating of customers and improves customer loyalty. The support suggests SMEs should be distinctive and have a positive outlook towards the challenges towards e-commerce implementation. P17 also offered their view on this, which was "for business with e-commerce, customers can be reached anywhere and can shop from anywhere." Increasing customers or clients for an SME is very important, and it is even more important to retain the older customers, and this should be taken seriously if SME owners want to overcome the e-commerce implementation challenges.

4.9.3 Secured Systems

From this theme, it can be highlighted that SMEs interviewed at Bokamoso Incubation Centre understand that the e-commerce sector is highly affected by security issues. However, the SMEs also indicated that there is a way to deal with SMEs' e-commerce implementation

challenges related to system security. According to P1 "having secured websites from hackers and scammers is a challenge". P5 was of the opinion that there is a need to "improve cyber security to protect the SME and customers and also improve transparency in payments and traceable accounts to avoid loss of payments within transactions". Dealing with authentic and secure traders on online platforms was also another challenge that was stated by P3. P3 also added that "confidential information should not be accessible to an unauthorised person. It should not be intercepted during transmission". These findings indicate that SME owners should adopt systems that are more secure and they should only trade with systems that are secure.

The literature review from Celly and Knepper (2010) supports this by suggesting increasing e-commerce calls for an urgent need for SMEs to secure their online premises. However, many SMEs do not go beyond installing a basic anti-virus solution. This theme has suggested the importance of SMEs identifying secure-commerce systems with a high degree of security. The systems also need to take into consideration their customers' awareness of the security issues surrounding e-commerce or else be aware that they are prone to attacks. In support of secure systems P6 suggested that:

"SMEs need to have a reliable website with traceable references. They should also trade with companies with authentic websites and only provide their banking details on e-platforms".

Overall, this theme supports the idea that dealing with SMEs' e-commerce implementation challenges requires SMEs to obtain secure e-commerce systems.

4.9.4 Easy Operations

A further common theme found was easy operations. The SME owners at Bokamoso identified that dealing with SMEs' e-commerce implementation challenges should be that e-commerce

makes business operations easier. P12 explained that e-commerce is driven to easy operation because you don't need to travel and discuss with customers. These findings corroborate Yadav and Rahman (2018) who found that once the business is engaged in selling or buying online, it is implementing a basic e-commerce strategy which should evolve into an e-business model when the firm has further integrated its online strategy with its offline operations. This theme has highlighted the emphasis put on SMEs to adopt e-commerce with the aim of improving their operations, and thus SME operations should be included in the business strategy of the organisation.

According to Li and Xie (2012) the impact of online processing has led to reduced cycle times as it now takes seconds to deliver digitised products and services electronically; similarly, the time for processing orders can be reduced by more than 90 per cent from days to minutes. Production systems are integrated with finance marketing and other functional systems as well as with business partners and customers.

4.9.5 Partnership

Thorough thematically analysing, all participants' views across the interviews indicated partnership as a theme. To begin the discussion, P2 suggested that SMEs need to "partner with other big businesses that are operating their day to day marketing using e-commerce and thereafter evaluate and introspect my business to achieve future goals". Yadav and Rahman (2018) whose findings indicated that groups of small companies are entering into electronic partnerships with large firms that are customers or suppliers or with industry-wide associations. It was found that this works best when e-commerce is used proactively as part of a set of strategies to increase SMEs' competitiveness in global markets. P11 was of the idea that "I am advising the SME business owners to implement e-commerce by requesting help from information technology companies so as to guide them".

There were also some negative areas discussed when considering the theme of dealing with the implementation of e-commerce such as from P4 who identified the fact that “the issue is that of no touching of products until or during the delivery; that’s when you see that the products are not genuine, they’re not original and users may not trust the site being an unknown traceless seller”. From this it is clear there is an element of uncertainty surrounding the idea of partnership and e-commerce in general. Supporting this Duch-Brown and Martens (2015) stated that partners are needed and one needs to create a partner strategy to capitalise on the most advanced capabilities available. Also, when choosing a logistics partner for retail and e-commerce, small businesses should focus on those that can provide delivery options in terms of speed, cost optimisation, and reliability to differentiate their offer.

4.9.6 Regular Research

Through thematic analysis, another theme identified was regular research as a way to deal with SMEs’ e-commerce implementation challenges. This theme takes into consideration the idea of SMEs always conducting research with regards to e-commerce implementation as P13 suggested: “that there is a need to give training to help the owners understand an easier way of managing a business through the internet”. These findings are supported by Akman and Mishra (2017) who claims that the SMEs should be able to conduct research that is required for the successful implementation of e-commerce. They need to have the right computer system; the system that will be used to receive the payments as well as making it easier for interaction with consumers. P8 added that SMEs need to “explore the pros and cons of e-commerce for your specific business and also within this segment and adopt a rational decision. They are making an approval as to whether the experience is unpleasant it or not”.

CHAPTER 5 : CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The purpose of this study was to investigate the challenges faced by small and medium enterprises in utilising e-commerce in Windhoek. The study used an interview guide with non-structured questions to engage participants at the Bokamoso Incubation Centre in conversations regarding e-commerce.

Extent to which e-commerce is being utilised by SMEs incubated at Bokamoso

The study found that the extent to which SMEs incubated at the City of Windhoek are utilising e-commerce is not that much as some of the SMEs do not use e-commerce. Those who adopted e-commerce have done so because of other drivers, internal and external. In summary, the current drivers of e-commerce adoption at Bokamoso Incubation Centre include market forces, business owners, as well as external parties. In addition to SMEs needing drivers of e-commerce in their business, they had also realised the benefits of e-commerce adoption. These benefits include reaching the international market, enjoying cost reductions, increasing their customer base as well as having access to multiple marketing opportunities. They, however, valued the relationship they had with international business partners.

Challenges affecting the adoption of e-commerce by SMEs incubated at Bokamoso

SMEs claimed that e-commerce was hindered by organisational, financial, technical and legal and regulatory barriers. However, SMEs incubated at Bokamoso are not risk-takers despite the indication that they are aware of the benefits associated with e-commerce. This was evidenced by the fact that SMEs at Bokamoso indicated a lack of trust in the e-commerce phenomenon.

The lack of confidence stemmed from the lack of secured e-commerce systems being prone to various attacks such as fraud. The lack of trust and security is part of the technical barriers. The unreliable e-commerce systems fuelled by policies under legal and regulatory barriers that were not inclusive enough with regards to payment systems not accessible in Namibia was identified as an e-commerce barrier. Specifically, with regards to security and privacy issues, the SMEs indicated that there is a lack of legal privacy protection standards in Namibia when it comes to e-commerce.

Organisational factors perceived to be hindrances to e-commerce include lack of employee knowledge, infrastructure, perceived low current use of e-commerce, organisational culture and planning and technology-related trust issues. All SMEs indicated that they lacked the necessary human resources, expertise and technological resources to adopt and implement e-commerce. They perceived the skills needed to implement and use e-commerce as lacking for their organisations. SMEs in this study further perceived the necessary technological resources required to invest in e-commerce as costly.

Due to the costs associated with e-commerce adoption, the Bokamoso SME owners' commitment to e-commerce was minimal, and this is seen in the lack of financial support given to them from financial providers. High implementation cost is linked to lack of capital as identified by the respondents in this study. Uncertainty and accessibility of payment methods have been linked to financial barriers by SMEs at Bokamoso.

The SMEs who participated in this study categorised explicitly that payment systems such as PayPal are not accessible in Namibia, and sometimes their clients do not have the means to pay online because their banks do not allow. However, for electronic payments to fully enable SMEs to participate in the e-commerce sector, there is a need to involve partnerships among different players, from telecom operators to express delivery companies and retail agents.

These results are consistent with the findings from the SME owners who were of the opinion that express delivery is a barrier, identified under technical obstacles.

The study found that the cost factor was of high importance to SMEs in the cost of obtaining a competitive market advantage. Other costs that were important for SMEs with regards to e-commerce adoption included costs required to ensure that the SMEs break even in terms of profit making. The costs included aspects such as acquiring the best e-technology, having constant connection to the internet, being able to improve efficiency and effectiveness as well as keeping a high business profit. In addition, former studies reveal a number of benefits that motivated SMEs to adopt e-commerce, such as cost reduction in running day-to-day operations. With this said, SME owners need to do a cost-benefit analysis when deciding on e-commerce systems to ensure that they can save on costs.

The SME owners from Bokamoso Incubation centre identified the most significant barriers to adoption of e-commerce in their companies and these have been listed as: organisational barriers, financial barriers, and technical barriers, legal and regulatory barriers. The study identified the ways they believe they could overcome each of those barriers mentioned. E-commerce awareness and resources such as ready availability of computer and Internet accessibility to partake in the use of e-commerce are some stumbling blocks. For example, this study found that one of the challenges in Namibia was the unreliable e-commerce systems that stem from issues such as internet problems from the service providers, and sometimes the servers go down. Thus, having customers was not really an issue for SMEs at Bokamoso as they indicated that having e-commerce is beneficial because it increases customer reach.

Benefits of e-commerce adoption by the SMEs incubated at the Bokamoso.

However, by looking at support such as financial assistance, the SME owners are of the opinion that e-commerce is cost-effective. Moreover, tangible benefits of implementing e-

commerce technologies included some of the already mentioned reasons. Also, higher sales and revenue because of new customers, new markets, repeated orders of existing customers, less marketing costs, supply chain costs and managerial costs. The SMEs at Bokamoso suggested that with e-commerce, they can lower marketing and distribution costs. However, some of the organisational factors identified were the lack of investment in e-commerce.

With regards to improving customer service, the SME owners indicated that e-commerce is indeed improving customer service. The marketing strategy for e-commerce adoption by SMEs should facilitate the penetration of SMEs to large markets at minimum cost and offer customers with products at lower prices than competitors. This study revealed that SMEs need to have in place a marketing strategy as a benefit towards e-commerce adoption. Although the partnership was perceived as critical for the adoption, and specifically with organisations offering of e-commerce this did not really come out in this study as a driver for e-commerce.

Thus, the need to understand the barriers to e-commerce adoption and also address them through the company business plans to profit the SMEs. Moreover, this study identified so many obstacles with security, ordering and delaying of orders. However, the barriers for adoption of e-commerce are several but depend on the organisation's condition and preparations. Thus, SMEs' wanting to have a plan on how they would take their business to the international market is pointing the SMEs in the right direction. Moreover, the SMEs at Bokamoso are also in agreement that their business strategy includes creating a competitive advantage as well as allowing them with an opportunity to market their business online. Despite that, there are numerous SMEs who indicated they have proposed to develop an e-commerce strategy. This research also reported about SMEs who did not see the need to

follow strategy formulation for e-commerce adoption. However, some of those who said no also indicated that they have an intention to adopt e-commerce into their business strategy.

5.2 Recommendation

The study makes the following recommendations.

- Institutions such as the Ministry of Trade and IT consultation companies should drive e-commerce as this will ensure that SMEs appreciate the benefits of e-commerce utilisation.
- The financial regulatory authorities should review the current payment platforms and ensure that there are no payment barriers around global e-payment systems such as PayPal in Namibia.
- Bokamoso Incubation Centre should set up an online shop for the SMEs incubated at their centre as some participants do not have the financial means to do so.
- There is a need for the SMEs to adopt e-commerce into their business strategies. This would cover how they plan on using e-commerce to maximise their profits e-commerce should also be included in the marketing strategy.
- The researchers recommend SMEs should incorporate e-commerce into their organisational culture and provide training to managers and employees. This would help in acknowledging the benefits and barriers in relation to the adoption of e-commerce.

5.3 Areas for further research

Further research needs to investigate the current e-commerce platforms that are currently being utilised by the SMEs as well as look into the benefits as well as the challenges with regards to the specific platforms. There is also a need to further conduct research on the current legal barriers that are challenging SMEs in adopting e-commerce from both SMEs and

the financial institutions. Moreover, there is also a need to carrying out of the research on a larger scale or delimitation, enabling better generalisation of results; carrying out of a similar research using different methodologies, and research design e.g., using mixed methods should also be considered.

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7. APPENDICES

APPENDIX A

Data Collection Tool

Interview Questions

1. Name of interviewee.....
2. Name of business.....
3. Gender.....
4. What types of business are in involved in?
.....
5. How long have been in business?.....
6. When did you start conducting your business through e-commerce?.....
7. Who is the driving force for e-commerce adoption in your SME?
.....
.....

8. What were the reasons for adopting e-commerce in your business?
.....
.....
.....

9. List (by importance) the biggest barriers to adoption of ecommerce in your company? List this in terms of organisational barriers; financial barriers; technical barriers; legal and regulatory barriers

Organisational Barriers

- a)
- b)
- c)

Financial Barriers

- a)
- b)
- c)

Technical Barriers

- a)
- b)
- c)

Legal and regulatory

- a)
- b)
- c)

10. How have you overcome each of those barriers you mentioned? (If YES, how did you do it?)

.....
.....

11. To what extent is the cost factor important in the adoption of higher-level e-technologies? (How would you rank it on a scale from 1 to 5, where 1 means less important and 5 means very important?)

.....
.....

List (by importance) the most important benefits of adopting e-commerce by your company?

.....
.....

Were you aware of the potential benefits and barriers before you started using e-commerce of you have or are using e-commerce? If YES, why did you not adopt e-commerce earlier in your operations?

.....
.....
.....

12. Have you made changes to your long-term business strategy because of e-commerce? (If YES, what are the changes?)

.....
.....
.....

13. How is your marketing strategy influenced by e-commerce?

.....

.....

.....

14. What strategies are you using to deal with the challenges associated with your SMSs' implementation of e-commerce?

.....

.....

.....

15. What else would you want to share regarding strategies SME business owners can use to implement e-commerce?

.....

.....

.....

APPENDIX B

Permission Letters



28 January 2020

TO WHOM IT MAY CONCERN

Re: MBA Management Strategy, Student – Ms Amenege Ndeyapo Ashipala Student Number-201716734

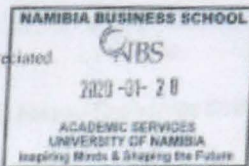
As part of our Masters Programme, students are expected to submit a research report after completion of their course-work. They need to explore in detail, some concepts and issues pertaining management strategies. To do that effectively, they need to conduct interviews and obtain practical examples.

Ms Ashipala has chosen your organization to approach for information. It is against this background that I wish to kindly request you to assist Ms Ashipala with the information she requires. Accept our assurance that the data will be used for academic purposes only. A copy of the completed document will be available at the Namibia Business School for perusal. Her research synopsis indicates that her topic touches on "AN INVESTIGATING OF THE CHALLENGES FACED BY SMES IN UTILISING E-COMMERCE IN WINDHOEK".

Your kind assistance is highly appreciated

Yours sincerely

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ENQ:	Ms. ZM Ferreira Snr HRD Officer	PHONE:	08 264 61 290 2592
DATE:	11 May 2020	FAX:	08 264 61 290 3212
		EMAIL:	fzm@windhoekcc.org.na

Dear City of Windhoek Officials,

RE: PERMISSION TO CONDUCT RESEARCH TITLED "AN INVESTIGATION OF THE CHALLENGES FACED BY SMES IN UTILISING E-COMMERCE IN WINDHOEK"

This letter serves as confirmation that **Ms Amenenge Ndeyapo (Student Number 201716734)**, a student at the Namibia Business School NBS (UNAM), pursuing a MBA (Management Strategy), has been granted permission to conduct her research by means of interviews and or pertain practical examples.

They need to explore in detail, some concepts and issues pertaining management strategies.

As respondents of the study, City officials are therefore requested to render Ms Ndeyapo their cooperation and assistance. Should there be any queries, please feel free to contact the OD & HRD Division on the above contact details.

Kind Regards

[Handwritten signature]
Mr A. Nkanor

Manager: Organisational & Human Resources Development



The Rev. Dr. Greenfield Mwakipesile

ThD, MBA, HBS | mwakipg@outlook.com

CONTACT

PO Box 99539,
UNAM,
Namibia

LANGUAGE & COPY-EDITING CERTIFICATE

10th October 2020

RE: LANGUAGE, COPYEDITING AND PROOFREADING OF AMENENGE NDEYAPO ASHIPALA'S THESIS FOR THE MASTER OF BUSINESS ADMINISTRATION DEGREE OF THE NAMIBIA BUSINESS SCHOOL OF THE UNIVERSITY OF NAMIBIA

This certificate serves to confirm that I copyedited and proofread AMENENGE NDEYAPO ASHIPALA'S Thesis for the MASTER OF BUSINESS ADMINISTRATION DEGREE entitled: AN INVESTIGATION INTO THE CHALLENGES FACED BY SMALL AND MEDIUM ENTERPRISES IN UTILISING E-COMMERCE IN WINDHOEK NAMIBIA

I declare that I professionally copyedited and proofread the thesis and removed mistakes and errors in spelling, grammar, and punctuation. In some cases, I improved sentence construction without changing the content provided by the student. I also removed some typographical errors from the thesis and formatted the thesis so that it complies with the University of Namibia's guidelines.

I am a trained language and copy editor and have edited many Postgraduate Diploma, Masters' Thesis, Dissertations and Doctoral Dissertations for students studying with universities in Namibia, Zimbabwe, Eswatini, South Africa and abroad. I have also copy-edited company documents for companies in the region and abroad.

Please feel free to contact me should the need arise.

Yours Sincerely,

The Rev. Dr. Greenfield Mwakipesile



Greenfield.mwakipesile



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Dr. Greenfield
Mwakipesile