

# **Institutionalization of E-commerce in Women-led SMEs – A Least-developed Country Context**

A dissertation presented to the  
Department of Information Systems



University of Cape Town

By

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In partial fulfilment of the requirements for the  
Master of Commerce degree in Information Systems  
August 2018

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## **ABSTRACT**

This dissertation reported an investigation of e-commerce institutionalization process in women-led SMEs in Mozambique. The goal was to understand how e-commerce is conceptualized by these SMEs while exploring the contextual factors that contribute or inhibit the process of institutionalization from the unique perspective of a least developed country (LDC) such as Mozambique.

The study combined the perspectives offered by the contextualist theory (Pettigrew, 1985) and the Perceived E-readiness Model (PERM) (Molla & Licker, 2005a) to employ an integrated framework for investigating the process of e-commerce institutionalization. An interpretative and qualitative multiple case study approach was employed as a methodological basis, using six SMEs which have been able to institutionalize e-commerce. The data collection was conducted through multiple data sources including semi-structured interviews, analysis of company website, and social media platforms. Data were analysed using a thematic analysis approach across the cases.

The findings indicate that there are different patterns of e-commerce institutionalization. SMEs do not always follow the traditional steady stages of e-commerce growth described in the literature. Furthermore, the results showed a socially constructed feature of e-commerce characterized by the extensive use of social media networks. A great levels of institutionalization and satisfaction was attained when enabling factors within and outside the organization interacted positively. Within the internal context of the organizations, the SMEs manager's capability to use social media networks, e-mail and mobile phones to build innovative business models, create direct relationships with customers, and marketing direct to their niche markets. Factors from the external context emerged as the main challengers to the process of institutionalization, specifically the challenges faced by the government, market forces, supporting industries, and those of socio-cultural nature.

A number of important recommendations were made, for example, the government should not only provide the regulatory framework but also work actively in its promotion and implementation. This should encompass the establishment of networks and training opportunities to improve SMEs knowledge regarding e-commerce, and continuous partnership between the various stakeholders

involved in the e-commerce ecosystem in addressing the various environmental challenges. By conducting an investigation on the selected women-led SMEs in Mozambique, this study has extended knowledge of e-commerce research in the country. Additionally, it is an important contribution for the debate about e-commerce in developing countries, specifically a better understanding of SMEs that go beyond the initial adoption phase.

**Keywords:** E-commerce, Institutionalization, SMEs. Women, Least Developed Countries, Mozambique

## **ACKNOWLEDGMENTS**

First, I would like to praise the Lord, without his miraculous doings in my life, it would have not been possible to complete this journey .I would also like to thank my mother and brothers for the continuous encouragement and support, particularly, thank my fiancé for being a great source of encouragement during this journey, for believing in me even when I did not believe in myself.

Second, I must be grateful and acknowledge the support and guidance of my supervisor Dr. Salah Kabanda. A special thanks for her patience and continuous insightful feedback. Above all, for her emotional support. I would also like to thank the Graça Machel Trust and the University of Cape Town for providing the financial support that allowed me to complete my Master degree in South Africa.

Finally, I want to thank all the interviewees that agreed to share their experiences with me. Without their input, this dissertation would never be possible.

I would like to dedicate this dissertation to my beloved late sons Emmanuel and Elijah. May God keep your souls in peace.

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## **CHAPTER 1: INTRODUCTION**

Both research and practice communities have recognized the relevance and importance of women-led small and medium enterprises (SMEs). For developing countries in particular, SMEs are considered the backbone of the economy. It is, therefore, not surprising that many governments, academics, donors, and development organizations are paying more attention and engaging in mechanisms to promote this category of business (Kabeer, 2012; Ritse & Richard, 2015; Sachs, 2012; Vossenber, 2013, 2014). Indeed, there are myriad studies that have investigated various mechanisms to support the development of SMEs (Ahmad & Muhammad Arif, 2015; Ajumobi & Kyobe, 2015; De Vita et al., 2014; Maier & Nair-Reichert, 2007; Malhotra & Schuler, 2005; Purushothaman, 2011). One of these potentially powerful mechanisms is the use of electronic commerce by SMEs (Ritse & Richard, 2015). E-commerce is commonly defined as the electronic process by which individuals and organizations buy, sell, transfer, or exchange products or services and/or information (Turban et al., 2009). In a nutshell, the use of e-commerce allows SMEs to erase the necessity of making huge investments in physical infrastructure to develop global presence (Alyoubi, 2015).

Women make up one half of the world's human capital, however, their engagement in formal entrepreneurial activities is lower when compared with men. Thus, nowadays, in much of the developing world, the development of business led by women is a strategic imperative for a country advancement (Quagraine & Ariwa, 2016). Researchers have suggested that through e-commerce women led SMEs have been able to cope with some of the traditional barriers that hinder their professional participation and growth. Consequently, reducing transaction costs, increasing profitability, productivity and efficiency, and gain access to new markets (Liu et al., 2016; Ritse & Richard, 2015).

Previous studies investigating the deployment of information systems technologies in organisations, have emphasized the crucial role played by the context in which the SMEs are embedded (Shemi & Proctor, 2013; Walsham & Sahay, 2006). Thus, a contextual view of the process of e-commerce institutionalization was applied in this study. The theoretical aspect of context has been employed through Pettigrew (1985) Contextual theory.

For this study, e-commerce institutionalization is conceptualized as a process by which SMEs have attained a certain level of sophistication in their use of e-commerce. The geographical context of the study is Mozambique, a LDC situated in Southern Africa. In the context of this study, an SME is defined as per the criteria of the Ministry of Trade and Industry (MTI) of Mozambique, which takes into account the number of employees (between 1 and 99) and annual turnover (at 29 million Mozambican Meticaais).

The rest of the chapter is organized as follows: research problem statement and rationale motivating the research (Section 1.2. and Section 1.3, respectively); research question and objectives (Section 1.4); brief description of the theoretical foundation underpinning the research (Section 1.5); and organization of the thesis (Section 1.6.).

### **1.1. Research Background and Problem Statement**

SMEs play a vital role in the national socio-economic development of any country, they are considered the backbone of many economies (Savlovski & Robu, 2011). In Africa, particularly, they are considered the prime providers of job opportunities, accounting for up to 50%-70% of employment opportunities across the continent (Aremu & Adeyemi, 2011). At the same time, they are a key source of creativity and innovation that drives the economic development of the continent (Hart et al., 2015). Women-led SMEs, in particular, are further beneficial from a social perspective, as they foster positive social repercussions towards the advancement of gender equality and economic empowerment for women and their households (Kabeer, 2012; Ritse & Richard, 2015). As some studies have suggested, the women's taking part in economic activities not only reduces the likelihood of household poverty, but it also improves the distributional dynamics within the household and society. In other words, economically active women are more likely to reinvest their profits in their families and communities (Ahmad & Muhammad Arif, 2015; Kabeer, 2005). As a result of their significant socio-economic role, the development of women-led businesses is a priority for many countries across the globe, and Mozambique is no exception. Although the country has no specific legal framework that promotes and supports the development of women businesses, there are some initiatives from the government and private sector that are focused on

alleviating the structural constraints that hinder the development of businesses led by women (ILO-WEDGE-Southern Africa, 2011).

In the current globalized business environment, businesses everywhere are using different information and communication technologies (ICTs) to expand their capabilities, especially the Internet. Because of the technology ability to transform the way organizations conduct business, which allows people to engage in commercial activities without spatial or temporal boundaries (Consoli, 2012; Kyobe, 2011). E-commerce is considered one such enabling catalyst that, in conjunction with the Internet has revolutionized the business environment. For SMEs in particular, e-commerce offers many possibilities that would otherwise not be available to them (Boateng et al., 2008a). Thus, it is no surprise that the adoption of e-commerce by SMEs has been discussed extensively in the literature (Boateng et al., 2008b; Kabanda & Brown, 2015; Molla & Licker, 2005b; Mutua et al., 2013; Shemi & Proctor, 2013; Stockdale & Standing, 2006a; Tan et al., 2007; Zaiied, 2012). There are suggestions that the debate around e-commerce adoption by SMEs is faded (Chitura et al., 2008), however, some researcher are calling for fresh approaches to understand the phenomena (Tran et al., 2014). Furthermore, some researchers advocate for the inclusion of more recent developments in the e-commerce research. Developments such as the use of social media platforms (Huang & Benyoucef, 2013), and others urge the need to study the phenomena in less explored contexts such as LDCs, where many of the present structural constraints impede the full realization of the benefits brought by e-commerce (Kabanda & Brown, 2015). In contrast, others demonstrate the need to have a more holistic approach to the phenomena and consider the differences between the levels of maturity of e-commerce (Miao & Tran, 2013). For the latter, a critical area of concern is the lack of detailed understanding of why so few SMEs in developing countries have institutionalized e-commerce in their organizations, and why, given similar environmental conditions, some can attain a level of maturity that others cannot (Miao & Tran, 2013; Tran et al., 2014).

At the intersection of these challenges, one challenge that remains underexplored is the use of e-commerce among women-led SMEs, in LDCs. Particularly in light of the fact that women-led businesses in LDCs are often disproportionately affected by challenges such as having limited capital, low educational levels, limited access to information and markets, biased institutional

norms, and several others that may impact their process of adoption and use of e-commerce (Liu et al., 2016; Ritse & Richard, 2015). Surveys such as that conducted by the Global Entrepreneurship Report (GEM) have confirmed that such environmental conditions weigh differently on the sexes, with women more likely to be negatively impacted (Kelley et al., 2017). It is, therefore, essential to develop an in-depth understanding of the e-commerce dynamics of women-led SMEs.

Considering the above, the focus of this research is on the e-commerce activities of women-led SMEs. Of specific interest are SMEs that have attained a certain level of institutionalization in their organization, as this reflects a persistence to overcome the various challenges. This work aims to present a contextual view of the process of e-commerce institutionalization in these SMEs. For example, how do they implement e-commerce in their businesses? What are the e-commerce technologies they use? How do they grapple with internal and environmental issues that impact the process of institutionalizing e-commerce adoption? Moreover, how individual choices and structural constraints faced by women influence the institutionalization process.

## **1.2. Research Rationale**

The United Nations (UN) World Trade Organization (WTO) has identified the need to “*take forward the issues emerging in the discussion and the evolving application of e-commerce to enhance economic/development opportunities, with special consideration of the situation in LDCs*” (UNCTAD, 2015). The volatile and underdeveloped context of LDCs has contributed to the little attention these countries have received regarding e-commerce issues (Kabanda, 2011). In the case of Mozambique, specifically, to the best of the researcher knowledge, no empirical study that focuses specifically on e-commerce institutionalization is available. As such, this study intends to make a contribution to the understanding of e-commerce activities in an underdeveloped context of Mozambique.

An additional motivation of this study is the potential value of e-commerce for the socio-economic empowerment of women, especially in LDCs (Macueve et al., 2009; Maier & Nair-Reichert, 2007). Women in many LDCs still own and manage significantly fewer businesses than men.

Moreover, business that are owned by women tend to grow slower and are more prone to fail (Maier & Nair-Reichert, 2007). Literature has offered various possible explanations for this phenomenon: some researchers have pointed to the social and cultural contexts in which women in these countries are embedded as the principal motive. Arguing that such patriarchal and gender-biased societies and economies are not supportive of women's equality (Miller & Shrum, 2011; Vossenber, 2014). Subsequently, women in these countries are faced with more barriers, such as access financial resources, education, and information.

Despite the vast number of constraints, there is growing evidence of women businesses taking advantage of modern technology advancements and actively participating in e-commerce activities, some of them with a certain level of maturity (Maier & Nair-Reichert, 2007; Ritse & Richard, 2015). As such, an in-depth study of these businesses could provide a good understanding of their characteristics, how they are conceptualizing e-commerce, their process of institutionalization, and the factors that influence the process.

### **1.3. Research Questions and Objectives**

The main goal of this research is to explore the characteristics and the contextual factors that contribute to e-commerce institutionalization in women-led SMEs from the unique LDC perspective. The focus is on how women-led SMEs are conceptualizing and institutionalizing e-commerce in their business, thus translating into the following research question:

***How is e-commerce being institutionalized in women-led SMEs in Mozambique?***

In pursuing the answer to the above question, the following sub-questions were formulated:

- What are the contextual factors that contribute or inhibit the institutionalization of e-commerce in women-led SMEs in Mozambique?
- How do these factors interact to induce or inhibit e-commerce institutionalization in women-led SMEs in Mozambique?

#### **1.4. Methodology**

The nature and objectives of this study make it appropriate to take an interpretive approach. An interpretive paradigm permits an in-depth understanding of the context of e-commerce in these women-led enterprises (Klein & Myers, 1999). By adopting an interpretive stance, this study assumes that reality is gained through social construction and the shared meaning that people assign to them (Orlikowski & Baroudi, 1991; Walsham, 2006).

This study is further concerned with issues of social change and social justice regarding the economic position and condition of women (Cook & Fonow, 1986), aiming to produce useful knowledge that contributes to gender justice and women advancement (Lozano-Neira & Marchbank, 2016).

The study utilizes a case study approach as a method of investigation, in conjunction with Pettigrew contextual theory (Pettigrew, 1985). The contextual theory is applied as the lens through which the process of e-commerce institutionalization in women-led SMEs is explored. It provides an underlying procedural perspective, meaning a process can be studied through the inter-dynamic relationships between the content and the context, providing explanations on how the content of change has been shaped by the processes within the specific context of where it is taking place (Toraskar & Lee, 2006).

#### **1.5. Overview of Dissertation**

This dissertation includes six chapters. The current chapter serves as a general introduction to the study, and the proceeding chapters are organized as follows: Chapter two presents a review of previous literature on the phenomenon of e-commerce in developing countries in general, zooming in on institutionalization specifically. The chapter first examines and understands women-led SMEs and e-commerce in LDCs and is then followed by a discussion of the factors influencing this institutionalization. The chapter concludes by presenting the conceptual framework that is related to the study. Chapter three presents the method and research methodology that was adopted for this study. The research design of the study is discussed, from the philosophical assumptions, purpose and approach, research methodology, research trustworthiness, and ethics. Chapter four presents a detailed description of the cases under study, a full case study narrative describing the

nature of e-commerce, the context, and process for each SME. Chapter five provides a cross-case analysis, comparing the commonalities and contrasting between the cases and discussing them in relation to the extant literature. Chapter six concludes the study, revisiting the research questions, providing the contributions and recommendations from the study as well as limitations and potential future research work related to the study.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1. Introduction**

The value of e-commerce in contributing to a country development is well documented in the literature (Boateng et al., 2011; Kasemsap, 2018; Savrul et al., 2014). The literature also demonstrates that in order to fully gain from the potential advantages of e-commerce, the technology must be adopted and implemented at a more advanced levels (Miao & Tran, 2013; Tran et al., 2014). Despite the numerous benefits from institutionalizing e-commerce in businesses, there is a growing concern amongst researchers with regards to the slow pace at which some categories of business are institutionalizing e-commerce (Ritse & Richard, 2015). In particular, women-led SMEs in LDCs are exhibiting low levels of engagement with more sophisticated forms of e-commerce (Miraz et al., 2016). While the factors that are associated with the adoption of e-commerce in SMEs are well known, factors regarding how some women-led SMEs are able to institutionalize e-commerce in their businesses despite environmental and organizational constraints are still not well known (Goswami & Dutta, 2017; Tran et al., 2014).

This chapter presents relevant literature on women-led SMEs as well as factors that influence e-commerce institutionalization in LDCs. Section 2.2 will discuss women-led SMEs in greater detail and will also cover general issues concerning their use of ICT. Thereafter, section 2.3 presents an overview of e-commerce in LDCs and the link between e-commerce and women-led SMEs. This is followed by an overview of factors that influence e-commerce adoption in section 2.4. In section 2.5, a discussion on the most frequently engaged theories for investigating e-commerce is provided. Finally, section 2.6 will present the conceptual model developed for the study at hand.

### **2.2. Women-led SMEs**

The definition of SME is a controversial issue. Often varies by country or institution, however, it is often applied in terms of qualitative characteristics, and quantitative criteria that are mainly used for their dimensional classification (Berisha & Shiroka Pula, 2015). The generally agreement among researchers is to base the definition on criteria such as the number of worker, and the volume of annual turnover, the structure of ownership, and value of assets. As such, there is no

universally accepted definition over what an SME is, as definitions may differ across industries and countries (Abor & Quartey, 2010). Thus, it is crucial to consider definitions in light of their context. Throughout this work, SME will be defined in accordance with the Ministry of Trade and Industry (MTI) of Mozambique, which, in defining SMEs, takes into account number of employees and annual turnover. To be considered an SME, the enterprise should have between 1 and 99 workers and report an annual turnover of at least 29 million Mozambican Meticaais (Nhancale et al., 2009). Women-led SMEs are enterprises with the same definition as above; the only difference is that they are either owned, partnered, or managed by women.

Women's involvement in business activities is not a new phenomenon; globally, women have been long known as an important aspect of encouraging economic development (ILO-WEDGE-Southern Africa, 2011). A recent report from the Global Entrepreneurship Monitor (GEM) on female business activities suggests a significant increase in women business engagement. Estimating that across developing countries, SMEs with full or partial female ownership represent 31-38% of formal SMEs. In Sub-Saharan Africa, the percentage of formal SMEs with female ownership drops to 21-26% (Ahmad & Muhammad Arif, 2015; VanderBrug, 2013).

Research suggests that women face myriad constraints when engaging in business activities, some of which are based on gender-discriminatory practices in a typically male-dominated environment (Kabeer, 2012). For example, Jamali (2009) noted that women face limitations in accessing the financial resources needed to establish and run a business (Jamali, 2009). Additionally, the inadequacy of the provided trainings and access to information are constraints to women in conducting business. In LDCs specifically, low levels of education and skills training among women further exacerbate the challenges (Vossenbergh, 2013). Other researchers have observed additional factors that challenge women pursuing business activities, including work-family balance, socio-cultural norms, lack of societal support, legal barriers, access to land ownership, and unequal decision-making power (Derera et al., 2014; Maier & Nair-Reichert, 2007; Weeks, 2009). In Mozambique, Serra (2007), found that women businesses displayed evidence of a gap in a set businesses skills. Serra (ibid.) noted that women in Mozambique felt they needed to develop their own skills in different areas of business management. The extent of these issues varies across countries; nonetheless, their very prevalence means formal businesses activities are skewed against

women, especially in African context. This explains why most women businesses are concentrated in the informal sector or in consumer-centric products and services sectors, which are often seen as an extension of their domestic roles (Jamali, 2009).

The debate around the use of ICTs among women in developing countries has been polarizing: while some argue that women lack access and/or are technophobic in general, others view women as enthusiastic users of digital tools once they have access (Miller & Shrum, 2011). Researchers that promote technophobia arguments claim that women are less likely than men to use ICT due to a lack of interest and training, as well as software and hardware applications that do not reflect female interests and needs (Achuonye & Ezekoka, 2011; Maier & Nair-Reichert, 2007; Mumporeze & Prieler, 2017). Findings that contradict this argument show that once there is equity of access, women embrace and are empowered by ICT (Buskens & Webb, 2009; Webb, 2016). For example, in a comprehensive study conducted in 12 Latin American and 13 African countries, Hilbert (2011) found that low access and use of ICT among women therein was due to the barriers women face with respect to education, employment and income; however, when controlling for these variables, women turned out to be more active users of digital tools than men.

Despite these various constraints, more women are proactively expanding their businesses. In Africa, McDade and Spring (2005) noted a rise of a “new generation” of women entrepreneurs that unlike traditional micro or small-scale informal sector vendors, is a more organized segment of the business and has potential to make a major impact on economic and social growth on the continent. These developments have increased the necessity of studies that focus on women in business by striving to understand their involvement from both generic and specific theoretical perspectives (De Bruin et al., 2007). As some researchers have suggested, it is important to focus directly on the characteristics and behaviours of women in business and not simply offer comparisons of men and women, which tend to be concerned with strategies through which women entrepreneurs can mimic male norms (Ajumobi & Kyobe, 2015, 2017; Kikooma, 2011). This argument is often grounded in the premise that most research is done with the objective of aiding women in businesses; however, it seldom considers the woman’s perspective in terms of recognizing their own voice (Kabeer, 2012).

This study seeks to present insight from the perspective of women-led SMEs in order gain a better understanding of their process of growing their business through the sophisticated use of e-commerce.

### **2.3. E-commerce in LDCs**

E-commerce in its various forms has been widely discussed in academic and practitioner literature (Ngai & Wat, 2002). However, a stable and agreed-upon demarcation and delineation of what defines e-commerce remain blurry among researchers (Suryani & Subagyo, 2011), especially in this current Web 2.0 evolution (Huang & Benyoucef, 2013). In its early development e-commerce was defined as ‘sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunication networks’(Ngai & Wat, 2002, p. 416). Since then, there has been a distinct effort from researchers in developed countries to define e-commerce as a process of buying, selling, transferring or exchanging products or services using electronic transmissions via the Internet. In this regard, the use of e-mail for communication or a website for publishing purposes is not considered e-commerce (Grandon & Pearson, 2004; Wilson et al., 2008). A common thread among studies from the developing world is to offer a broad definition of e-commerce, in which e-commerce is viewed as an innovation through which parties interact electronically to conduct business, regardless of their resources and constraints; e-commerce basically entails the use of Internet and allied technologies to conduct transactions (Kabanda & Brown, 2010). Such a broad definition allows for applicability to a developing country context, thus, the latter definition was considered for this study.

E-commerce may be part of the business process or may indeed be the entire business process; it may also presuppose various forms such as business to consumers (B2C), business to business (B2B), between costumers (C2C), and business to government (B2G) (Boateng et al., 2008a; Rowe et al., 2012). In developing countries, B2B and B2C are the most commonly employed categories of e-commerce (Lawrence & Tar, 2010). B2C e-commerce entails businesses selling to the general public typically through catalogs that make use of shopping cart software. The majority of B2C transactions occur in the most developed countries; however, developing countries such as China, India, some in Latin America and Africa have been showing fast adoption in recent years (Hawk,

2004; Liu et al., 2016). Nonetheless, estimates of e-commerce in African point to very low participation in international trade through digital channels: the total international B2C from Africa and Middle East regions combined represented only about 2.2 % of global transactions in 2013 (UNCTAD, 2015).

While B2C is the most well-known type of e-commerce, B2B accounts for the largest share of e-commerce and is the most economically valuable type of e-commerce (UNCTAD, 2015). B2B e-commerce, which links businesses in the value chain to each other, primarily entails the exchange of products or services between businesses, such as between a manufacturer and wholesaler or between a wholesaler and retailer (Vatanasakdakul et al., 2004). Some studies suggest that B2B e-commerce offers great potential benefits for small businesses, in that B2B allows small businesses in developing countries to “leap-frog” other economies and gain direct access to global markets while reducing transaction costs (Beige & Abdi, 2015; Tang Sai & Standing, 2015). In the particular case of Africa, B2B e-commerce is said to be used for direct one-to-one trading between international buyers and sellers that would otherwise be difficult to reach (UNCTAD, 2015).

The adoption of e-commerce in Africa has been experiencing a serious growth spurt. However, its penetration is not evenly distributed; much of the success reported in the literature concerns only the biggest economies of the continent, such as Egypt, Kenya, Nigeria, and South Africa, (Bwalya, 2011; Hamad et al., 2018). Other countries on the continent have been slower in their adoption process, largely due to infrastructure and financial limitations. This is not surprising as the continent is home to 33 of the world’s 48 LDCs (United Nations, 2015).

LDCs are countries with very low national incomes and suffer from various structural impediments in their efforts to attain sustainable development. LDCs are considered the poorest and most vulnerable group of countries in the world (Sachs, 2012; United Nations, 2015); as such, they face several problems spanning low economic growth, high levels of unemployment, low income per capita, poor infrastructural development, and weak institutional capacity (Cuervo-Cazurra & Genc, 2008).

Mozambique is one such LDC, and e-commerce adoption in the country is in its infancy stages when compared to other countries on the continent. Despite existing e-commerce and e-business

activities in the country, a legal framework that regulates electronic transactions — including e-commerce and e-government— was only enacted in January 2017.

There is a scarcity of accurate ICT and e-commerce data relating to Mozambique. In 2003, the UN Economic Commission for Africa (UNECA) SCAN-ICT project carried out in six African countries (Ethiopia, Ghana, Morocco, Mozambique, Senegal, Uganda) revealed that in Mozambique, e-commerce activities were almost non-existent, and only very few enterprises — most of which were not owned by locals — were conducting business online (United Nations. Economic Commission for Africa, 2010). This has since improved substantially: e-commerce activities are now more common in large corporate organizations that use B2B/B2C strategies as their preferable mode of internationalization, and also some SMEs (Goncalves & Cornelius, 2017; Mabila, 2013). Currently, this largely applies to businesses in the capital city, Maputo, which is relatively well supplied with telecommunication and Internet infrastructure.

The network readiness index (NRI), also referred to as the technology readiness index, is an evaluation conducted by the World Economic Forum (WEF) that measures country propensity to exploit opportunities offered by ICTs. In 2013, Mozambique was ranked 133<sup>rd</sup>, out of 144 countries; in 2016 this improved to 120<sup>th</sup> (World Economic Forum 2016). A conducive business environment and the fact that Internet in the country has become more affordable have driven this progress. In 2016, Mozambique ranked 45<sup>h</sup>, out of 90 countries, in terms of Internet affordability. This aligns with the low costs of mobile cellular and fixed broadband internet tariffs in the country when compared to other similar low-income countries with similar economic profiles (World Economic Forum 2016). These improvements can be attributed to the high demand for telecommunication services and infrastructure driven by the country's economic growth during the last few years.

#### **2.4. Factors Influencing the Institutionalization of E-commerce**

The adoption of e-commerce is a complex, progressive and multi-phase process (Tran et al., 2014). As a consequence, factors that are known to influence one phase may be very different from those

influencing another phase. This section will review organizational and environmental factors known to influence e-commerce institutionalization.

#### **2.4.1. Environmental Factors**

The successful institutionalization of e-commerce depends not only on how ready the organization is, but also on how conducive the environment is for the process to happen (Kabanda & Brown, 2017). Studies have highlighted how external forces such as governments, markets, supporting industries, as well as socio-cultural norms exert great influence on the organization's journey to the adoption of sophisticated e-commerce (Kabanda & Brown, 2015; Molla & Licker, 2005b).

##### **2.4.1.1. Government e-readiness**

Government policies that promote, support, and regulate e-commerce activities are viewed as crucial for driving the e-commerce adoption agenda. Most LDCs tend to lack institutional readiness to stay abreast of new developments in the fast-paced world of ICT Kabanda and Brown (2015) showed how government resistance to the use of ICT/e-commerce transactions, as well as irrelevant and incomprehensive ICT/e-commerce policies were hindering Tanzanian SMEs' efforts to develop e-commerce in the country. Similar findings were reported from SMEs in Botswana, which indicated the need to reformulate the e-commerce policy in the country, specifically a tax policy for online transactions as a priority (Shemi & Proctor, 2013). These conclusions are well supported by other studies from both developing and developed countries, wherein the government plays an important role in developing policies and legal frameworks that are conducive for e-commerce development (Hoque & Boateng, 2017; Quagraine & Ariwa, 2016; Shemi & Proctor, 2013; Sin et al., 2016).

##### **2.4.1.2. Market e-readiness**

The pressure exerted from market forces is often pointed as a major driver for the sophistication of e-commerce in organizations (Molla & Licker, 2005b; Oliveira & Martins, 2011). It has often been suggested that organizations that perceive their customers, competitors, suppliers and other business partners as prepared for e-commerce activities are more likely to embark on an advanced form of e-commerce because of either perceived value (network benefits) or fear of market

displacement (Abou-Shouk et al., 2016; Zhai, 2010). In a study conducted with SMEs from the tourism sector in Malaysia, Abou-Shouk et al. (2016) described how the response to competitor pressure and engagement with international clients were the main compellers for SMEs' continuous engagement with e-commerce. This corroborates the suggestion by Molla and Licker (2005) that organizations in developing countries that are linked to global supply chains are most likely to adopt sophisticated e-commerce as their suppliers and clients are international.

Another important factor relates to the customers' readiness; studies from developing countries have reported problems related to the lack of purchasing power, as well as social and cultural issues (Al-Najjar & Jawad, 2016; Chiejina & Olamide, 2014).

#### **2.4.1.3 Supporting Industries e-readiness**

Similar to the above market stakeholders, industries that provide the necessary support for the flowering of e-commerce — such as telecommunication, financial and logistics — play a key role in the development of e-commerce. As an application of the Internet, e-commerce relies heavily on information and telecommunication infrastructure for its development, thus, access to internet services — including the required hardware and software — is crucial for the e-business capability of SMEs (Solaymani et al., 2012). Developing countries' absence of reliable infrastructure, as well as the high cost associated with these services, is one of the aspects that hinder SMEs' expansion of e-commerce activities (Fleenor & Raven, 2011).

Another factor affecting e-commerce has been the availability of conducive financial institutions to promote e-commerce endeavours. The absence of a credible banking system that allows for the use of electronic payment systems has deterred many businesses in developing countries from engaging e-commerce (Mukti, 2000). This is because of the low banking system penetration in many of these countries, as they still partly use cash as their more common medium of payment (Zhai, 2011). Recently, these challenges are being overcome by the unprecedented high penetration of mobile devices and mobile services, such as mobile payments, that are facilitating the e-commerce phenomena (Wamuyu & Maharaj, 2011). Additionally, e-commerce relies on efficient logistics infrastructure within a country, as distribution and delivery systems are key elements for supporting the development of e-commerce (Lawrence & Tar, 2010). Some researchers have reported that an inefficient delivery system and the lack of reliable transportation systems are key obstacles to e-commerce growth in developing countries (Datta, 2011).

#### **2.4.1.4. Socio-cultural norms**

In developing countries where societal norms and values play a very important role in guiding people's behaviour and beliefs, certain socio-cultural characteristics are known to influence the e-commerce institutionalization phenomena (Kabanda, 2011). In a study conducted in Nigeria, Chiejina and Olamide (2014) pinpointed lack of trust online payments among customers as an important factor limiting the growth of e-commerce usage. Chiejina and Olamide (2014: 6) state: consumers need to trust that what they are buying is good value for money, they feel the need to physically inspect products prior to purchase'. As this is not possible with e-commerce purchases, customer concerns are not addressed. Similarly, in Tanzania, a general lack of trust in e-commerce also emerged as a growth inhibitor (Kabanda & Brown, 2015). Here, this was associated with a culture of bargaining, problems with language on the Internet, and people dependency on each other (ibid.). In many developing countries, shopping is viewed as a social activity, and the lack of personal contact between vendors and consumers threatens the existing social norm (Lawrence & Tar, 2010). Not surprisingly, in many countries, websites are perceived as a mere place for promoting products, not for actual purchases (Rowe et al., 2012).

Some of the socio-cultural issues in developing countries demonstrate a sharp contrast with the needs of mature e-commerce, thus increasing the challenges faced by organizations pursuing an e-commerce agenda (Vatanasakdakul et al., 2004).

#### **2.4.2. Organizational Factors**

While some researchers argue that the environmental factors reviewed above are the most significant factors in this process of e-commerce institutionalization, others suggest that as organizations seek a more advanced form of e-commerce, internal organizational factors become the main determinants of the initiation and success of the process (Al-Hudhaif & Alkubeyyer, 2011). Factors such as top management commitment, availability of resources, and internal governance have echoed in the e-commerce literature as the influencers of how far and how fast organizations move up the e-commerce ladder to a more sophisticated level (Molla & Licker, 2005b). The important role played by managers or owners in the adoption and use of ICTs by SMEs, and e-commerce in particular, is well documented in the literature (Daniel et al., 2002; Hong & Zhu, 2006; Stockdale & Standing, 2006a; Tang Sai & Standing, 2015). This comes as no

surprise, as in SMEs, the owner or manager is generally the main driver and decision maker of all business activities (Savlovski & Robu, 2011). Thus, their support of and commitment to an e-commerce agenda is viewed as one of the more critical factors for adoption (Beige & Abdi, 2015).

When studying B2B e-commerce post-adoption behaviour of SMEs in China, Zhai (2010) found that SMEs that had more top management support, and by extension the availability of technological resources, presented a better performance. Similar conclusions were made by Al-Hudhaif and Alkubeyyer (2011), who described how Egyptian SMEs whose managers had knowledge of and valued ICT innovation displayed more developed ICT competencies. In connection with ICT and e-commerce knowledge, previous studies have emphasized the importance of the level of education, showing how that the prevalent low literacy levels in certain developing countries act as barrier for managers to fully comprehend e-commerce's potential (Molla & Licker, 2005b; Shemi & Proctor, 2013).

The required resources to venture into a more sophisticated form of e-commerce have been cited as inhibitors or motivators of e-commerce institutionalization within the boundaries of organizations. Some researchers have emphasized the substantial role that business, technological and human resources play in e-commerce adoption (Tang Sai & Standing, 2015). Molla and Licker (2005b) found that as SMEs in South Africa adopt more sophisticated e-commerce practices, advantages derived from resources become less important. Corroborating their conclusion, Miao and Tran (2013) claim that internal organizational characteristics — such as top management knowledge and commitment — were found to have a more significant influence than the availability of resources.

The contrast in conclusions from the various studies mentioned above furthers fuels the question of how organizations with the same resource attain different levels of adoption. As posited by Tran et al. (2014) institutionalization has its own set of factors that are independent of initial adoption and should thus be analysed and carefully managed separately.

## **2.5. Theoretical Foundation in E-commerce Adoption Research**

Throughout the years, studies concerned with technology adoption have employed various theoretical models as foundations for the investigation of the technology adoption phenomena among individuals and organizations (Barney et al., 2011; Oliveira & Martins, 2011; Rogers, 2004; Tornatzky et al., 1990; Venkatesh et al., 2003). According to , the majority of studies on e-commerce adoption by SMEs are based on: diffusion of innovation (DoI) (Rogers, 2004), technology acceptance model (TAM) (Davis, 1989), institutional theory, and/or technology-organizational-environmental framework (TOE) (Tornatzky et al., 1990).

Each of the above theories is conceptualized to examine different aspects of business technology adoption, and are either dominated by a technological, organizational, environmental or managerial perspective (Molla & Licker, 2005a). However, a review of the literature from studies of developing countries suggests that models that focus on the interaction of the different perspective in one dynamic framework are deemed more suitable for a developing country context. One of the most popular models based on the interaction of perspectives is the TOE framework, which was developed by Tornatzky et al. (1990) as a tool to understand how the process of technological innovation in organizations is influenced by three contexts, namely: technological, organizational and environmental contexts. TOE is well credited in the literature for its predictive power and ability to highlight marked differences in the performance of organizations in similar contexts . As such, TOE has been a popular foundational model in examining issues in a number of Information Systems (IS) domains, such as enterprise resource planning (Awa et al., 2016; Ruivo et al., 2014), e-government (Pudjianto et al., 2011), cloud computing (Lian et al., 2014), and e-commerce (Gangwar et al., 2014; Hart et al., 2015).

However, some critics have pointed out that some important variables — i.e. Sociological, cognitive, technology readiness (e.g. human capability, availability of resources), complexity of managerial structures, and culture — are left unevaluated in the model (Gangwar et al., 2014; Tan et al., 2007; Wang et al., 2010). In addition, critics claim that the model's constructs are more applicable for large organizations, where clients are sure of continuity and fewer complaints, than SMEs (Awa et al., 2016), thus diminishing their credibility for use in SME evaluations. Additionally, another noted deficiency of TOE is that it was designed to cater for developed

countries, thus further limiting its direct applicability to the context of a developing country . As Molla and Licker (2005a) highlighted when investigating e-commerce in the South African context, issues that may seem trivial in a developed country — such as government policy/regulation, availability of telecommunication infrastructure and cultural practices — may actually be of utmost importance for a developing nation.

Given the general lack of a social-cultural emphasis from the above theories, this study develops a framework combining the Contextualism theory proposed by Pettigrew (1990) with the PERM framework developed by Molla and Licker (2005a).

### **2.5.1. PERM Framework**

In light of the above criticisms, Molla and Licker (2005b) conducted a study specifically examining e-commerce adoption issues among businesses in developing countries, which lead to their conceptualization of the Perceived E-readiness Model (PERM) specifically for the developing country context. The PERM framework— as the TOE framework — is rooted in the interactionism perspective, was designed to address the organizational and environmental challenges and limitations faced by enterprises in developing countries, which are different to those experienced by organizations in developed countries. Further, the PERM model identifies internal organizational factors, known as Perceived Organizational E-readiness (POER), and external factors, known as Perceived External E-readiness (PEER), as critical for e-commerce adoption. The model also makes a clear distinction between initial adoption and institutionalization of e-commerce: organizations that are not yet connected to the Internet or with email, or even have a static website with basic business information, are considered to be in the initial stage of adoption, while organizations that have reached an interactive, transactive or integrated stage are considered to have successfully institutionalized e-commerce (see Figure 1). PERM has been empirically tested and validated in various developing countries such as Cameroon, China, and Ghana (Kabanda, 2011; Tang Sai & Standing, 2015).

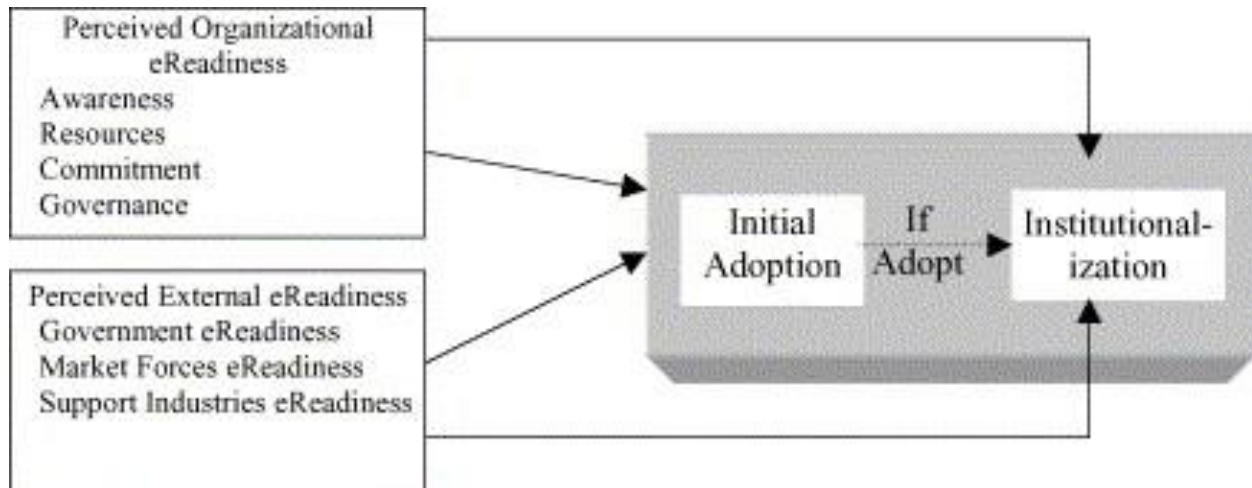


Figure 1 PERM Model (Molla & Licker, 2005a)

Molla and Licker (2005a) defined POER to comprise the following:

- Awareness: this refers to the perception of e-commerce elements in the organization, i.e. to what degree do managerial structures have an understanding of e-commerce models, requirements and benefits
- Resources: this encompasses human, technological and business resources and refers to the availability, capability, and flexibility of these resources
- Commitment: represents institutional support for e-commerce within the organization itself but particularly from management structures
- Governance: this considers the strategic and operational model that small businesses use to govern their business operations.

PEER refers to the degree to which managers believe that market forces, government and other supporting industries are ready to support organizations' implementation of e-commerce (Molla & Licker, 2005a). According to Molla and Licker (2005a), external readiness factors include:

- Government readiness: this is defined as the organization's evaluation of government's readiness to promote and support e-commerce
- Market forces readiness: describes an assessment of the readiness of other members of the business ecosystem, such as consumers, suppliers, and competitors, to adopt e-commerce

- Supporting industries' readiness: refers to an evaluation of the existence, development and cost of support-giving industries such as telecommunications, finance, IT and others whose activities affect e-commerce initiatives in developing countries

The PERM model is chosen as the theoretical basis for the development of the research model for the study at hand. This choice is based on several considerations. First, PERM is more relevant for an LDC context than any other model, as it was specifically designed to address real situations faced by organizations in developing countries. Second, PERM has been implemented several times in the investigation of e-commerce adoption in developing countries (Dada, 2006; Kabanda & Brown, 2015; Molla & Licker, 2005b; Tan et al., 2007). Third, the model's combination of both environmental and organizational level factors provides better explanatory power than some models that only focus on one dimension (Li & Xie, 2012). Further, the model is designed to examine the levels of sophistication and integration of e-commerce into the organizations; therefore it is suitable for this study as the study intends to investigate adoption at a more sophisticated level.

However, in spite of the above positive considerations regarding PERM, the model still receives some criticism. First, critics argue that PERM does not include important industry descriptors — such as sector, organization size, and educational background of employees — and individual managerial attributes that may be critical to the advancement of e-commerce in an organization (Shemi & Proctor, 2013; Tan et al., 2007). In addition, PERM is reported to not pay specific attention to socio-cultural variables that may also bear some influence of the adoption process by an organization. As such, for this study, PERM was adapted to thus include relevant factors that capture some demographic and individual characteristics of the women-led SMEs studied. In addition, its use will be well supported by a theory that allows the analysis of the entire process. The theory of contextualism was reviewed and employed as a tool to analyse and develop the theoretical framework.

### **2.5.2. Contextualism theory**

The theory of contextualism was developed by Pettigrew (1985) as an explicitly 'historical, processual, and contextual' approach to studying organizational change (p. 61). The theory posits

the study of interactions between a particular phenomenon and the context in which it takes place. According to Pettigrew (1990), the central focus of a contextualist study is to examine change as a process in a historical and contextual way, by simultaneously analysing the environment within which the change occurs and the successive interconnection of events that lead the change to occur. This approach makes a clear distinction between: the area subjected to transformation (**the content** – ‘what is changing’. This can be a new technology, the organization itself or its specific activity/operation); the various internal and environmental factors that may be significant to the change (**the context** – ‘why the change’. Environmental context refers to the economic, social and political environment surrounding the organization, while the internal context refers to the organization’s internal structures and processes); and the actions and interactions of the various parties as they go through the change (**the process** - ‘the how of change’) (Pye & Pettigrew, 2005; Toraskar & Lee, 2006). As indicated by Karyda et al. (2005), the goal of the contextual research is to trace the dynamic links between the content, context and process over time, by providing explanations on how the content of change has been shaped by the processes within the specific context where they take place.

In IS research and practice, there has been an increasing focus on the interaction between technological change and the broader context within which the innovation is embedded (Avgerou, 2001; Avgerou & Walsham, 2000; Cooper & Molla, 2012; Karyda et al., 2005). This interaction becomes more important when considering the context of IS innovation in developing countries, which involves the transfer of technologies that were initially conceptualized and proven to be beneficial in more developed contexts (Avgerou & Walsham, 2000). The contextualist approach in IS research in developing countries has been used in different ways: (i) as a research paradigm (Braa et al., 2007), (ii) as a research methodology (Walsham & Sahay, 1999), or (iii) as a theoretical model (Toraskar & Lee, 2006). In the case of this study is not used either as a paradigm or methodology, instead it draws on the contextual theory key components as the basis from which to conceptualize the analysis of the process of e-commerce institutionalization. The contextual theory allows the study to consider the broader context, which is demanded by the interpretive arguments taken in this research (Stockdale & Standing, 2006b).

## **2.6. Conceptual Framework**

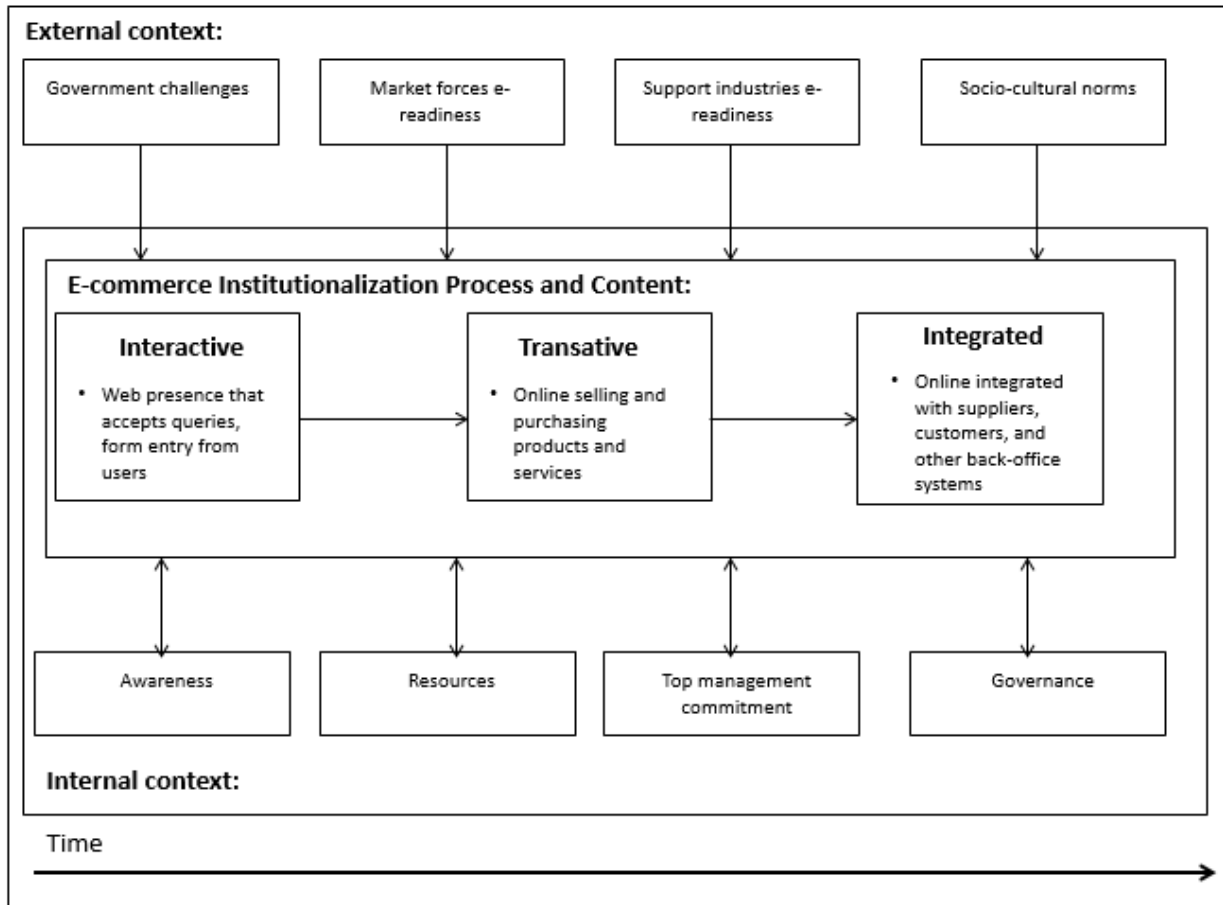
Based on the literature review from the above sections, and the research question discussed in Chapter 1, a conceptual framework was developed to serve as a conceptual basis for the research.

### **2.6.1. Combining Contextualism Theory with PERM Framework**

This research is focused on e-commerce institutionalization processes in women-led SMEs and also seeks to understand how these women conceptualize e-commerce, what factors contributed to the current status, and the series of events that lead to the institutionalization. This objective thus requires an underlying framework to explore the known internal and external factors that influence the process. Molla and Licker (2005a) PERM model, as described in section 2.5, is a suitable model to address e-commerce influences in an LDC. The two constructs of the model, POER and PEER, were conceptualized to assess an organization's perception of their readiness.

In order to operationalize the components of the contextualist theory, e-commerce institutionalization is examined as a process of change within an organization: a change that reshapes the organization's processes, how the organizations interact with different stakeholders, how they negotiate, sell or buy products and services, and overall changes and dynamics of the organization (Toraskar & Lee, 2006). In this study there is the assumption that institutionalization is explained by first analysing the content of the e-commerce technology being used. By also analysing the internal and external context influencing the process in order to provide an understanding of the 'why' of the use of e-commerce. Simultaneously, an analysis of all steps of the institutionalization process as to detail how the process of institutionalization unfolds in organizations.

In Figure 2, the conceptual framework is presented and is followed by a brief discussion of the elements of the framework. First, the type of e-commerce technology being used explains the content. The context is based on the external factors that influence institutionalization from the PERM model, namely: electronic readiness of government, supporting industries, and socio-cultural norms. The internal factors, also extracted from the PERM model, consider the influence of top management as well as their commitment to e-commerce adoption, the organization's state of internal governance, and available resources.



**Figure 2 Conceptual framework**

**The content of e-commerce institutionalization:** Content is defined as the area subjected to transformation. As Pettigrew (1990) explains, this may encompass a new technology, a new product being launched, or even a department within the organization. In this study, the type of e-commerce technology being employed describes the content. Since e-commerce is a phenomenon that takes different forms depending on the context, a delineation that accommodates the reality of an LDC such as Mozambique is imperative.

Arguably one of the most common characteristics of e-commerce globally is a website. Having a corporate website is viewed as a critical component of an e-commerce strategy. It is also a key marketing tool an organization, as well as attracting and maintaining customers (Turban & Gehrke, 2000). Various studies have been conducted to investigate website usability for the development

of e-commerce (Choudhury & Choudhury, 2010; Delone & Mclean, 2004; Ghandour et al., 2008; Yang et al., 2014). One of the main points of concern seems to be the measurement of e-commerce website success from the perspective of the organization as well as consumers (Ghandour et al., 2008). For example, Delone and Mclean (2004) suggested an e-commerce success model by measuring website information, system and service quality. Liang and Lai (2002) investigated the website characteristics that have an effect on consumers' purchasing decisions; they found that good website security was critical to consumers' decision to purchase goods online. Ghandour et al. (2008) went further and demonstrated how website performance cannot be captured in a single measure but should instead be treated as a multidimensional phenomenon that it is, including constructs that measure the informational, transactional, customer services, promotional and design capabilities. It is worth noting that in many developing countries, e-commerce websites are used as simple marketing tools, and are not used as transactional platforms (Kabanda, 2011). As a result, some of the above-mentioned capabilities might not necessarily manifest in these SMEs' websites.

Recent developments in social media and Web 2.0 technologies have transformed the e-commerce landscape. Web 2.0 is a term used to describe the new way in which software developers and end-users use the www as a platform, where applications and contents are no longer created and published by individuals but instead are continuously modified by all users in a participatory way (Kaplan & Haenlein, 2010). Social media refers to Internet-based applications that are built on Web 2.0 technologies, and examples include Facebook, Twitter, LinkedIn, blogs etc. (Huang & Benyoucef, 2013). Web 2.0 technologies have revolutionized the e-commerce landscape in both business outcomes and in terms of interactions among customers (Liang et al., 2011), particularly because of Web 2.0's influence on organizations' relationship with customers and the capacity to increase traffic to an organization's website, strengthen business reliability, and support brand and product development (Huang & Benyoucef, 2013). The benefits of social media for SMEs are notably greater: social media provides a relatively quick and low-cost method to connect with customers and other business stakeholders that would otherwise be more difficult and expensive if traditional technical solutions were used (McCann & Barlow, 2015). Studies that investigate how SMEs in developing countries are using Web 2.0 to leverage capabilities and value are still scant. In one of the few, Jagongo and Kinyua (2013) demonstrated how SMEs in Kenya used social

media tools to increase their market accessibility at a very low cost, by breaking geographical barriers, which in turn had significant impact on the growth of SMEs in the country.

The various aspects of Web 2.0 that are incorporated in the SMEs that will be part of the study will be discussed. Other organizational internal applications employed to engage in e-commerce activities will also be discussed.

**The context of e-commerce institutionalization** : Pye and Pettigrew (2005) argue that any study of action and meaning must pay close attention to context, because behaviour gains meaning when the environment in which it takes place is taken into account. Women-led SMEs have a variety of elements of context in which they operate. To guide the identification of these elements, the PERM model was chosen as the underlying framework, as it clearly identifies the organizational and environmental factors that influence e-commerce in developing countries. The environmental context— such as government e-readiness, supporting industries' e-readiness, market forces' e-readiness, and socio-cultural norms —is the principal variable that is likely to explain e-commerce institutionalization from the external context. It is believed that the preparedness of the various support-giving institutions creates a conducive environment for SMEs to embark on transactions online. The role played by the environmental influences becomes more important for women-led business in Mozambique, as they are embedded in a cultural system that is predominantly patriarchal (Macueve et al., 2009), where cultural norms and values have influenced the supporting institutions and shaped women's perceptions (Quagraine & Ariwa, 2016).

SMEs internal context is also a crucial consideration when analysing e-commerce activities. As suggested by Molla and Licker (2005a), the available resources, top management leadership, the organization's commitment to e-commerce as well as its governance structure, are the factors that exert great influence on an organization's path to institutionalizing e-commerce. Some of these factors have been reported as very challenging for small business in general (Savlovski & Robu, 2011). Nonetheless, there are limited detailed accounts of how business led by women, in particular, experience these factors.

**The process of e-commerce institutionalization:** The processes of change that unfold in an organization are shaped by the internal and external context (Karyda et al., 2005); therefore, the

decision and process of institutionalizing e-commerce are shaped by the contexts of SMEs. Understanding the sequence, flow of events, and patterns that lead to the outcome (institutionalization) is a core requirement of the processual research (Pettigrew, 1990). Molla and Licker (2005a) classified the progress of e-commerce development in developing countries based on six stages. As central to this study will be SMEs that have attained a degree of maturity, only SME's where institutionalization has been achieved will be analysed. An SME is said to have an interactive status when it has a web presence with capabilities to accept queries from customers either via e-mail or any other platform. A transactive status entails an online presence with the capability of selling and purchasing products and services, while an integrated status implies that SMEs have a web presence integrated with suppliers, customers and other back-office systems (Molla & Licker, 2005a).

## **2.7. Summary of the chapter**

This chapter discussed issues relating to the literature on women-led SMEs and factors influencing e-commerce institutionalization from a developing countries perspective, which was followed by an introduction to research paradigms in IS research. This culminated in a more detailed discussion of the theories used in e-commerce research, and went on to introduce the conceptual framework that was developed for the study.

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1. Introduction**

This chapter deals with the sequence of methodological choices and decision that were undertaken during the study in order to answer the research questions proposed in chapter 1. First a discussion of the adopted research philosophies is presented (Section 3.2). Then describes the purpose and the approach adopted in the study (Section 3.3), followed by a discussion of the research methods, which includes the data collection techniques (Section 3.4.1) and the data analysis procedures (section 3.4.2). Followed by the research trustworthiness (Section 3.5). The ethics and confidentiality issues that emerged are then discussed in section 3.6 before the summary of the chapter in section 3.7.

### **3.2. Philosophical assumptions**

Philosophical assumptions in information systems (IS) research are often discussed under different beliefs about the physical and social reality (ontology), competing visions about knowledge beliefs (epistemology and methodology), and beliefs about the relationship between knowledge and the empirical world (Klein & Myers, 1999; Orlikowski & Baroudi, 1991). Ontological assumptions can be broadly divided into two fundamental views: objective and subjective. An objective ontology assumes that reality exists independently of humans, and can be explained by universal principles and facts through robust, replicable methods (Orlikowski & Baroudi, 1991). In contrast, a subjective ontology assumes human perceptions are what shape reality. Subjectivism views facts as culturally and historically located, therefore subject to variation in behaviours, attitudes, experiences and interpretations (O’Gorman & MacIntosh, 2015; Orlikowski & Baroudi, 1991). The research objectives for this study will be explored through the lens of the contextualist theory. The fundamental rationale of Pettigrew (1985) contextualist approach arises out of the conviction that to be understood and studied, the phenomena must be seen as embedded in and interacting with their social, cultural , political and historical context (Toraskar & Lee, 2006). Against this background, the ontological stance adopted for this study is subjective. This stance makes appropriate to explore how the women-led SMEs development of e-commerce is being shaped by

the interconnection among their context, content and processes that occur while institutionalizing e-commerce.

Epistemological assumptions concerns with the criteria by which valid knowledge about a phenomenon is adequate and properly constructed (Orlikowski & Baroudi, 1991). There are three major epistemological stances in IS research: positivist, interpretive and critical. A positivist stance view reality as objectively determined and apprehensible (Orlikowski & Baroudi, 1991). Positivist researchers generally work in a deductive manner to discover causal relationships that serve as the basis for generalized knowledge

The critical paradigm assumes that there is a reality independently of human perception, but access to this reality is always limited and skewed by the human perception (Klein & Myers, 1999). Critical research is essential emancipatory, aims to help eliminate issues of alienation and dominations, by addressing and exposing inherent structural contradictions in social systems and thereby enhance opportunities for realizing human potential (Myers & Klein, 2011).

Interpretivism paradigms on the other hand, adopts the position that our knowledge of reality is socially constructed by human actors rather than objectively determined, therefore this social reality has to be investigated through the meaning that people assign to them (Walsham & Sahay, 1999).

This study adopts an interpretivist epistemology. The choice is justified by the fact that this research attempts to understand the process of e-commerce institutionalization through the people involved in it and on their social world and context, without the imposition on any control mechanism (Walsham, 1995). As a mean to understand how women particular realities are shaping the institutionalization phenomenon.

### **3.3 Research purpose and approach**

Prior to establishing the purpose and approach of the research, a comprehensive review of the literature related to e-commerce adoption and institutionalization process, women-led SMEs in LDCs was undertaken.

The review revealed a scarcity of empirical studies on e-commerce institutionalization process in SMEs of LDCs (Kabanda & Brown, 2015; Tran et al., 2014), making it suitable to gain more understanding of the phenomenon while at the same time providing a thick description of the

process. Therefore, this study was considered exploratory and descriptive in nature. Exploratory because it aims to build an understanding of the process of e-commerce institutionalization in women-led SMEs, and descriptive because aims to provide more detailed information about the process (Eriksson & Kovalainen, 2015).

There are two main approaches to research, namely, inductive and deductive. An inductive approach starts with specific observations, begin to detect patterns and regularities and finally end up developing broader generalizations or theories (Bhattacharjee, 2012). The deductive approach on the other hand works from the more general to the more specific, whereby the ideas of a theory are connected to the evidence of the phenomena under study (Bhattacharjee, 2012). In the present study, the existence of a predefined conceptual framework in conjunction with a theory to guide the research made suitable to follow the deductive reasoning.

### **3.4. Research Method**

Generally, in IS research the collection and analysis of data follows one of these three methods – quantitative, qualitative and mixed methods (Creswell & Garrett, 2008). Quantitative methods are considered suitable for deductive reasoning, they place considerable reliance on statistical or experimental methods for testing theories/hypothesis (Bhattacharjee, 2012). Qualitative methods on the other hand focus on the context, concentrate on observation and words in data collection to understand the way others construct, conceptualize and understand events (Cibangu, 2013). The mixed method on the other hand uses quantitative and qualitative techniques in the same study (Creswell, 2009).

For this study qualitative methods were used to give an understanding of how the context shapes the institutionalization process and content of e-commerce in women-led enterprises of an LDC.

#### **3.4.1. Case Study**

According to Yin (2003), a case study is an approach that facilitates exploration of a phenomenon within its context especially when the boundaries between phenomenon and context are not clearly evident. It is suitable when the research is focused on: i) answering why and how questions; ii) behavioural of the participants cannot be manipulated; ii) when the researcher believes that the contextual conditions are relevant for the phenomenon under investigation (Myers & Klein, 2011).

Case studies can be single or multiple. A single case study is an in-depth investigation of a phenomenon in one setting. While a multiple case study concerns with more than one single case or context, allowing for analysis within each set and/or across settings (Wynn Jr & Williams, 2012). In this study, a multiple case study approach was adopted to provide an in-depth understanding of the phenomena as well as the similarities or differences among the women-led SMEs process of institutionalization. As part of this multiple case study, a total of six SMEs were part of the investigation.

The unit of analysis is an important choice to be made in case study research. The unit of analysis may be an individual, a process, an organization or part of it (Yin, 2003). This study focuses on a process in an organization, namely, the institutionalization of e-commerce in the SME by the persons involved. The owner/manager as a principal decision maker in which most business activities are centralized plays a vital role in this process. Therefore, the unit of analysis in this research is a combination of the SME and the women that own/manage the SME, with the emphasis on the owners/managers as key decision makers in the unfolding processes that lead to the institutionalization of e-commerce into their SMEs. A

### **3.4.2. Data collection**

Following the choice of the research paradigm and methodology, a data collection technique was the next consideration. One of the main characteristics of case study research is the use of multiple data sources, which helps to enhance data credibility (Yin, 2003). For this study, both primary and secondary data sources were included. Primary data was collected through interviews with the involved SMEs. While secondary data came in different forms such as review of the literature, analysis of company website and other sources of data from the public domain.

A review of the literature served to better understand the e-commerce issues from past literature in LDCs and Mozambique in particular. The scarcity of academic literature on Mozambique e-commerce developments led the researcher to engage in alternatives strategies to gain a better understanding of the environment surrounding the phenomena in Mozambican SMEs, through attendance at local conferences. One organized by the Mozambican association of businesswomen entrepreneurs (August 2016), and one on women's access to internet organized by the Ministry of science and technology in partnership with the World Wide Web Foundation (February 2017).

Interviews were the principal mean of collecting data in this study. Interviews are generally conducted in one the three forms: structured, semi-structured, and unstructured interview (Bhattacharjee, 2012). Structured interviews do not allow for improvisation, a complete script of questions is prepared in advance. In semi-structured interviews there is script prepared in advance, however the researcher has the possibility of exploring new ideas based on the response of the interviewee. Unstructured interviews on the other hand have a more informal setting, with no prepared script. This study employed face-to-face semi-structured interviews in all interaction with SMEs, this approach allowed the use of prepared questions while leaving room for improvisation.

The interviews were conducted making use of a research instrument comprised of a set of questions that were developed based on the review of the literature and the PERM framework (Molla & Licker, 2005a). The processual perspective allowed viewing the institutionalization process in a historical and contextual way (Stockdale & Standing, 2006b). The research instrument has been provided in Appendix A. The first section covered the demographics of the SME, such as, the size, sector of the business, age, marital status of the business owner/leader. The second section focused on the characteristics and background information of the SME, including leadership characteristics, the content of e-commerce usage, and historical background of the organization. The third section covered the internal and external drivers and inhibitors of e-commerce institutionalization, a previous analysis of each SME website helped to design questions that are specific to the context of the SMEs.

The initial contact with participants was done via email or telephone. Followed by meetings that were primarily conducted at their offices or any other location that was convenient for the participants. The interviews lasted an average of one hour, the first 5 to 10 minutes of the interview was spent discussing the purpose of the research, and informed consent including confidentiality, anonymity, voluntary participation, the option to withdraw from the study at any point, and details on the University and Mozambican Commerce Chamber approval of the research (cover letter, consent form, and university approval attached at the end of the dissertation).

All the interviews were conducted in Portuguese, the official language of Mozambique; the researcher conducted translation, as she is able to speak both English and Portuguese. In consideration of the potential translation issues, the translation into English was delayed until the

themes emerged from the analysis; the decision was based on recognition of the ontological importance for people of their first language and the implication of colluding through early translation(Temple & Young, 2004). However, there still exist few nuances between the original and the translation, as it is not always possible to truly present some implicit meanings from one language to other.

The selection of cases to be included in the study followed a purposive sampling technique. The purposive sampling lies in selecting information-rich cases for study in depth. It permits to obtain a rich description of a phenomenon by those who have experienced it (Myers & Klein, 2011; Patton, 2002), and therefore was deemed suitable for choosing SMEs that have gone through the experience of institutionalizing e-commerce. A snowball sampling technique was also used to identify new participants based on the referrals obtained by the initial participants. In this technique, initial participating SMEs used their knowledge and social networks to refer other SMEs that were suitable and could potentially participate in the study (Bhattacharjee, 2012).

Due to limited time and financial resources on the part of the researcher, the chosen enterprises for this study only included SMEs led by women located in Maputo city. The city has the highest urban population and concentration of SMEs in the country. It also functions as the central hub of the Mozambican economy, with most of the ICT services and providers located therein. On this basis, it is considered that SMEs in Maputo serve well as a representative sample of Mozambicans SMEs.

According to Yin (2003) there is no ideal number of cases for a multiple case study, however researchers often advocate for a sample between four to ten cases, as being comprehensive enough to provide a valid basis for understanding the problem under investigation (Yin, 2003). The researcher planned to select between six to ten SMEs from different sectors in Maputo area. However, taking into consideration that not all the SMEs contacted for inclusion might have agreed to be part of the research, sixteen SMEs were originally contacted. Five of the contacted SMEs did not respond, and of those that did respond four were not suitable – two of them were not owned by Mozambicans and the other two had less than one year of establishment. Resulting in seven suitable SMEs that agreed to participate in the research. One of them was omitted from further analysis, as did not provide sufficient information.

The profile data of the selected SMEs is provided in Table 3-1.

SME	Nature of the business	Year established	N° of employees
A	ICT services and hardware	2010	17
B	Hair and Beauty	2014	3
C	Online Retail	2014	12
D	Consulting (business strategy)	2010	60
E	Catering	1996	62
F	Fashion and clothes	2011	19

**Table 1 Profile of selected SMEs**

### 3.4.3. Data analysis

In interpretative studies there is a general agreement that the analysis of data is an ongoing, and interactive process that begins in early stages of data collection and continues throughout the entire study (Creswell & Garrett, 2008). Therefore, in this study, although described sequentially, the process of data collection and analysis occurred simultaneously. The data collected was analysed following Cope (2005) four distinct levels of analysis. *Level 1* analysis comprise full transcription of the interview and initial analysis of transcript, also described as a level of familiarization and making sense of the data. In *Level 2* analysis, a case study narrative is developed in relation to each participant; the narrative presents a holistic portrayal of a person, program or organization under study. *Level 3* analysis is concerned with the cross-case comparison, with the purpose of seeking out what is common and what is particular about the cases. Finally *Level 4* analysis involves ‘clustering’ together evidence that confirms the relationships from the conceptual framework as well as new emergent relationships, and discussion in the context of the extant literature (Cope, 2005; Ponelis, 2015)

Throughout the level 2 and 3 of analysis, the study adopted a thematic analysis approach in analysing the data collected through the entire data corpus. As defined by Braun and Clarke (2006) thematic analysis is a method to identify , analyse and report patterns (themes) within data. Initially, the analysis included themes that were prior identified in the conceptual framework. However, the surge of additional themes for which the existing framework could not provide a clear categorization, lead to the inclusion of additional themes.

### **3.4.3.1. Level 1: Transcription and initial analysis**

Immersion in the data is an important first step in the analysis (Braun & Clarke, 2006). In this research all audio-recorded interviews were transcribed by the researcher herself because it provided a great opportunity to further familiarize with the data (Huberman & Miles, 2002). Following the transcription, the researcher reviewed the transcripts and audio records a second time to ensure the accuracy of the text, and that no important information was missing. A first initial analysis of each transcript was conducted through reading and re-reading of the transcripts in order to make sense of the data, highlight potentially significant issues and experiences

All the transcribed interviews, and other documents within each case were initially uploaded into NVIVO version 11.4 for organization and aid of the analysis process. The choice for the software was based on the ability to support the organization, and analysis of qualitative data in a good manner.

### **3.4.3.2. Level 2: Case study narratives and within-case analysis**

Following the first level of analysis of the transcripts, and the other sources of data, the second level of analysis comprehended the development of a coherent and manageable rich description for each case as it pertained to provide a picture with all necessary information to understand the case. The case study narratives were structured according to the conceptual framework in order to enable analysis of all the cases. According to Cope (2005) case study narratives can be presented chronologically , thematically , or both. In this study, the analysis was both chronological and thematic, in that, it narrates the e-commerce institutionalization process within the context of each SME over time. In addition, each case study narrative was written according to the experience of the involved, without reference to extant literature, using as much as possible the literal words of the participants (Cope, 2005). The case narratives were developed based on the interviews and research framework. The data was organized in different tables for each SME as presented in Figure 3. Below an extract from SME\_B is presented, the first column represents the component of the framework, the second column represents a sample question, and the last column the actual response given by the respondent.

	<b>Question</b>	<b>SME B (Response)</b>
<b>Background</b>	How did your background lead you to this position	Having a degree in telecommunication engineer, technology was always part of my professional life. It was a natural path, after being exposed to the benefits of e-commerce in Australia, I wanted to bring it to my country, so my entrepreneurial journey began.
<b>Content</b>	What products or services does your organization offer?	We only sell our products online in our website, products related to black women natural hair.
<b>Context</b>	Is the Mozambican legal environment conducive to conduct online business?	I think it is not conducive at all, but is also not prohibitive because there is no legislation; we operate following rules of a normal business.

**Table 2 Extracts from the narratives**

### **3.4.3.3. Level 3: Cross-case analysis**

The third level of analysis involved a thematic cross-case analysis on what is common and what is particular in the cases. The thematic analysis illustrates specific patterns of meaning found in the dataset that is crucial to describe the phenomenon under study (Joffe, 2012). This process involved first identifying the themes within the categories established prior to the analysis based upon the descriptors of the conceptual framework (Boyatzis, 1998). Followed a process of comparing the themes across the six cases to identify and explain similarities and differences, thus creating “links” between the stories (Cope, 2011). This process not only aggregated shared experiences from across the cases but also included unique experiences that were particular to some cases. The identification of themes followed Motion and Leitch (2002) three criteria for thematic analysis :i) recurrence of meaning; ii) repetition of the same text/data; and iii) text salient to the research topic. Table 3 presents an extract of the analysis.

	Theme	Description	Data extract
<b>External Context</b>	Government Passive Role	The government did not prioritize policy formation and regulation.	Our lawmakers are very slow, as consequence we are always late in Mozambique. Many people lost their money with scams, and the police were not able to help because they did not have how to prosecute those criminal. (SME_B, manager).  ...The laws are the same as any other business, however, I think the government should bring some change, with online transaction we are more at risk. (SME_E, manager)
		No active role in promoting e-commerce awareness, infrastructure or training.	If we look at all country, there are few people with access to technologies such as smartphones or even computers, people don't have the know-how to buy online, and the government does not help as well. (SME_A manager).  There are no incentives to do business in online, not even financial. They main concern is always collecting taxes, even without providing any support to us. (SME_C, manager)
	Market lack of readiness	Local suppliers prefer traditional ways of doing business	Suppliers are an issue, only very few have a more practical approach. For the others, we still have to go there by ourselves every time, some even don't accept POS, or electronic transfer, it is a nightmare..." (SME_D, manager)  We buy fresh vegetables from local farmers around Boane district, and some of them don't even have a bank account. We helped some of them to open bank accounts... (SME_C, manager).
		Costumers lack of purchase power	Sales have declined, people out there don't have money to buy anything, and I am not talking about luxurious items, we just sell groceries. Now we are more concerned with the economic crisis... (SME_C, manager)  You have to understand that we are still a poor country, buying a smart phone is still a privilege to majority of Mozambicans. We just rely on the growing middle class, which is also struggling with the crisis. (SME_A, manager).

**Table 3 Cross-cases Thematic Analysis**

#### **3.4.3.4. Level 4: Interpretation and enfold literature/theory**

In order produce a theoretical explanation, in this level of analysis the findings from level 3 are discussed in the context of the extant literature, a process described by as enfold in literature (Cope, 2005). This is an interactive and comparative process of going back and forth between the existing theory and the data, and developing a deeper understanding of the findings in relation to the extant literature. The outcome of this level of analysis was the interpretation of the findings and the conclusions that are presented in chapter 5.

### **3.5. Research trustworthiness**

In both quantitative and qualitative methods the reliability and validity of the research are always desired. However, these concepts are commonly associated with quantitative research (Bashir et al., 2008), where experimental and quantitative measures to test hypotheses and produce generalizations are generally used to ensure consistency and truthfulness.

In the qualitative paradigm on the other hand, reliability and validity are not viewed separately, and cannot be addressed in the same way as in quantitative studies (Shenton, 2004). In qualitative studies, trustworthiness is often used instead, defined as the degree of confidence that the researcher has that their qualitative data and findings are credible, transferable, and dependable. The term trustworthiness was proposed by Lincoln and Guba (1986, p. 81) as a reference to the “goodness of fit” criteria upon which the trustworthiness of a qualitative study is evaluated , namely : credibility, generalizability, dependability, and conformability (Lincoln & Guba, 1986).

According to Bashir et al. (2008) the ability and effort of the researcher play a vital role when trying to achieve trustworthiness. Therefore, researchers need to be attuned to multiple factors that pose risks to the trustworthiness of the findings, and plan and implement strategies to counter them and promote confidence (Golafshani, 2003). In ensuring the trustworthiness of this research, the researcher implemented the four set of criteria proposed by Lincoln and Guba (1986).

- i. According to Cameron (2011, p. 29) “Credibility is about determining how congruent the findings are with the reality” . Ensure credibility was achieved by first developing an early familiarity with the participating SMEs, this was achieved via a prior investigation of the

organization through their websites, social media presence as well as a collection of some archival organization documents. Second, by triangulation of data collection methods, in this research included interviews, organizational documents, as well as website.

- ii. “Transferability is achieved by providing sufficient contextual information to enable the audience to judge whether the findings can be transferred to other situations” (Cameron, 2011, p. 29). In pursuing the transferability, a thick description of contextual factors impinging the research, as well as a detailed description of each SME context together with all relevant aspects to the research questions.
- iii. “Dependability is about sufficient details and documentation of the employed methods so that the study can be scrutinized and replicated” (Cameron, 2011, p. 29). To establish dependability, a detailed description of the research design and its implementation were provided together with evidence of interview instrument available in appendices while interview transcripts will be made available upon request.
- iv. “Confirmability is about guaranteeing that the study findings are the result of the experiences of the informants rather than the preference of the researcher” (Cameron, 2011, p. 29). Triangulation was again used as a technique to reduce the researcher bias, together with a reflexivity technique by which the researcher reviewed the whole research process to comprehend to what extent aspects such as being women, having a background in the ICT sector have influenced the process.

### **3.6. Ethical considerations**

The researcher was aware of the integrity and moral principles required when planning, conducting and reporting interpretative research (Walsham, 2006). Therefore, permission from the Ethics Committee of the University of Cape Town (UCT) was obtained (see Appendix B), as well as permission from the Mozambican Chamber of Commerce and Industry (see Appendix C).

Furthermore, three important ethical elements were considered, as suggested by Walsham (2006), confidentiality and anonymity; tensions working with the organization; and reporting in the literature are very important ethical issues to consider. In ensuring confidentiality and anonymity, participation in the study was voluntary; all the SMEs were informed of the purpose of the study and that they had the freedom to withdraw from the research process at any point. All information collected was treated with strict confidentiality only possession of the researcher. When reporting

all the participant SMEs were treated anonymous, however some demographic information such as the size of the business, business sectors were disclosed for analytical purposes.

### 3.7. Summary of the chapter

This chapter discussed the methodology employed in the process of collecting and analysing data throughout the entire study. Issues of trustworthiness and ethics were also discussed. Table 3.2 presents the resume of the research design. The following chapter presents the case study narratives for each of the SMEs.

<b>Component</b>	<b>Approach</b>
<b>Ontology</b>	Subjective
<b>Epistemology</b>	Interpretive
<b>Research purpose</b>	Exploratory and Descriptive
<b>Approach to theory</b>	Deductive
<b>Research strategy</b>	Multiple case study
<b>Data collection technique</b>	Interviews& Website and document analysis
<b>Data analysis technique</b>	Thematic analysis

**Table 4 Research design summary**

## CHAPTER 4: RESEARCH FINDINGS

### 4.1. Introduction

This chapter presents and discussed the results obtained, it is structured as follows: Section 4.2 presents an overview of the selected SMEs. Then, Section 4.3 presents the second level of analysis: a descriptive narrative of the SMEs. Finally, section 4.4 presents a summary of the chapter.

### 4.2. Overview of the selected cases

In Table 5, SMEs were categorized according to Molla and Licker (2005a) level of e-commerce maturity model. The institutionalization of e-commerce in this model comprehends three stages, namely, ‘interactive stage’ where basic capabilities are introduced, such as having a web presence that accepts queries and entry form from users; ‘transitive stage’ where is added the capability of selling and purchasing products and services online; and finally, the ‘integrated stage’ where the business is fully integrated with customers, suppliers, and other back-office systems. None of the SMEs had reached an integrated stage, while four of them were in a transitive stage and the other two, in an interactive stage.

Maturity stage	Description	SME	Sector
Interactive	A website presence that accepts queries, e-mail, and form entry from users	SME D	Consulting (business strategy)
		SME E	Catering
Transitive	A website, that is, online selling and purchasing products and services such as customer service	SME A	ICT
		SME B	Hair & Beauty
		SME C	Retail (supermarket)
		SME F	Fashion designer

**Table 5 SMEs e-commerce maturity level**

### **4.3. Case study narratives**

This section presents a narrative description of the six cases. First, in section 4.3.1 a description of the owner-managers and the respective SMEs profiles are presented, followed by a section 4.3.2 that discusses in details the themes which emerged in the process of e-commerce institutionalization.

#### **4.3.1. Owner-managers and SMEs profiles**

##### **a) SME\_A**

The owner-manager is 29 years old with a degree in computer science. Whilst completing her degree, she participated in an internship program in Germany, thus being early exposed to international tech advancements. Upon her return to the country, she started the enterprise as a solo-owned business that has grown to the point of employing 17 people. Moreover, the enterprise has two branches in the country.

SME\_A provides ICT services with a broad profile of services ranging from web design to resell IT consumables. The business activities at SME\_A are organized into four divisions: i) Technical assistance unit that manages business services such as installation and maintenance of computers, printers, and other equipment's to clients; ii) Sale of equipment's unit; ii) An internal research, development and training division that is responsible for the innovative component of the organization, and provide training on clients premises; and iv) A recently launched unit that deals with online sales of their products.

All the businesses units are managed by the CEO, and operations coordinated by the COO that is the husband of the CEO. The company portfolio of clients includes Mozambican government institutions, NGOs, private owned SMEs, as well as singular clients that mainly buy computers and accessories.

##### **b) SME\_B**

The owner-manager has a bachelor degree in Telecommunications Engineer, and a master degree from an Australian University. While still pursuing her master degree abroad, she started the online community for black women hair, that later led her to open the online store that she manages while maintaining a full-time job as well.

SME\_B is a small enterprise selling black women natural hair and beauty products online; since started its businesses operations in 2014, e-commerce has been at the core of their business strategy. They represent various international brands in the country, and to date have clients from all over Mozambique, as well as other countries such as Angola, Guinea-Bissau, and Portugal. There are only 3 full-time employees. Two of them undertake administrative and logistic functions while the owner/manager manages all the issues regarding sales on the website, suppliers and technical issues. Their use of e-commerce emerged primarily driven by the perception of customer needs and the top management enthusiasm. Through a personal social media platform SME\_B was able to achieve a stronghold in e-commerce.

**c) SME\_C**

The owner-manager first established a small online business selling women's apparel through Facebook whilst completing her degree in agricultural science. Later, she attended two international internship programs in Brazil and Germany. Once graduated, she partnered with her husband to establish the country first online supermarket. Today, in her early thirties, she is the chief operating officer (COO) of the enterprise. SME\_C is an entirely online grocery shop, which sells all range of products from fresh products to drinks and household essentials. The company sources fresh products from small farmers around the province of Maputo; and other products are sourced from suppliers in the city or from neighbour South Africa. SME\_C is organized into three departments, namely, operational, IT and marketing, with a total of 12 employees distributed in these departments.

**d) SME\_D**

The owner/manager lived in Portugal for more than 15 years. In 2006, she returned to Mozambique to work in a Portuguese company that was establishing in the Mozambican market. After working there for few years, she left the company to start her own consulting company while doing her PhD. Currently, at 38 years old, she manages a team of 60 employees, providing advisory and technical assistance services to government, development agencies, civil society organizations as well as the private sector in Mozambique and other African countries such as: Malawi, Tanzania, Angola and Cape Verde. The organization recently extended its scope to also provide short-term

training, capacity building, as well as project and fund management. As SME\_D is a service provider, and their primary business activities are tender-based, a full transactional form of e-commerce is not feasible, because prices are stipulated according to the requirement of the job. All the ICT related services including maintenance of the company website are outsourced to a local ICT firm.

**e) SME\_E**

SME\_E is led by 50 years old woman with a basic level of education, and more than 20 years of experience in business management. It started as an informal business selling birthday and wedding cakes. In the late 90's, she established a formal enterprise specialized in catering services for individual, small-medium sized corporations, development agencies and government institutions. The company has currently expanded its services to include decoration and restaurant services. The organization grew to have 60 employees, out of which 48 are bakers and cooks, the remaining works in the administrative and managerial position. Immediate family members of the owner are part of the managerial team.

**f) SME\_F**

SME\_F's owner-manager has a degree in architecture. At the age of 23, with the financial support from her family she opened a formal fashion and design store offering exclusive local produced clothes for men and women all over Mozambique and abroad. The firm has grown to employ 19 people, most part of them as sewer machine operators. SME\_F has one active transactional website that was created by a local ICT firm. The site has transactional capabilities, however the only payment method available is PayPal. As a result most of the sales done through the website are from clients from outside of Mozambique. They also have their products featured in a third-party e-commerce website. However, the majority of their sales are still done face-to-face or using a combination of social networks and mobile phones.

### 4.3.2. Institutionalization of e-commerce

The institutionalization process in the investigated SMEs followed different paths. SMEs did not necessarily follow the traditional stages of growth described in the literature, where organizations follow the six stages of growth described by (Molla & Licker, 2005b), from not connected to the Internet to having a website integrated with suppliers, customers and other back-office systems . In the case of SME\_A, they went through three different phases of institutionalizing, namely: (i) getting online, (ii) web publishing and (iii) transacting online. The process unfolded through the years influenced by different factors. Due to the nature of their business, ICT and e-commerce played an essential role in their strategy. The SME employs B2B and B2C forms of e-commerce.

On the other hand, the process in SME\_B was characterized by two different phases – getting online, and transacting online –, SME\_B faster path to institutionalization might be explained by the fact that they do not have a physical retail store. The shop is purely online store with a strong social media presence, which includes a Facebook, Instagram and YouTube accounts. They have a community of more than 20,000 followers on their social media platforms. As she explained, the Facebook community was one the motivators behind her decision to embark on the entrepreneur journey:

*“I created the Facebook page as a platform to share my experience and passion with natural hair, after a while everyone wanted the products I was using, so I started my online store...”*

SME\_C also did not follow the gradual path of e-commerce development as described by Molla and Licker (2005b). It was a rather straightforward path to a transactional form of e-commerce. The organization took two years planning, and preparing to launch a complete online store. Therefore, since the conception of the organization, e-commerce has always played a central role in their business model.

SME\_D was driven by the nature of their business, which do not always require “face-to-face” interaction with its clients and potential clients. Email communications and/or video conferences are most of the time sufficient to fulfil their needs. As a consequence, the process of institutionalizing e-commerce in SME\_D was driven by the needs of customers, particularly by foreigner clients that are not always able to travel to Mozambique

Contrarily, SME\_E path to institutionalization was slower when compared with the above SMEs. As described by the IT manager, the progress was mainly determined by the local customers' needs. During many years they were comfortable with just employing traditional ways of doing business, until late 2011 when a combination of e-mail and mobile phone for communication with customers, as well as Internet for researching new trends in the market was introduced. The progression to adopt a relatively more advanced form of e-commerce that includes a static website and social media networks with a market purpose was driven by the perception of gaining competitiveness.

Lastly, in SME\_F the path to a transactional form of e-commerce was initiated by the use of social platforms. Even before becoming a formal business, the owner-manager was making use of these platforms to display her work, marketing and communicate with potential customers.

In Appendix A, Tables 5 to 10 present the details of the institutionalization process for each of the SMEs including a summary of the main factors that have influenced the different phases. Below a discussion of the common themes that emerged during the analysis of each case is presented.

#### **4.3.2.1. Use of Email/mobile phone**

The use of mobile phones and emails to enable communication with business partners was a common thread among all the SMEs. Mobile phones were strategically used to help avoiding infrastructural challenges present in the environment. By having a direct channel of communication with customers, the SMEs perceived that they were capable of maintaining relationships with customers.

As described by the manager of SME\_B, despite all the available resources on the website most of the sales are completed with the aid of mobile phone or e-mail. Customers have the habit of calling, email or send Facebook messages before finalizing any transactions. She estimates that only 15% of the total transactions are completed without a mobile phone call or email prior interaction. As she explained:

*“After all the effort, money and time spend in providing a complete online experience; I realized that my customers still preferred to interact with me first, or see the product first before completing the payment...”(SME\_B)*

It was evident the important role mobile/e-mail communication played, even among SMEs with transactional capabilities. It was a common practice to inform the customers of every detail regarding the transaction and allowing customers to also have inputs in the process.

While mobile phone usage was more common among SMEs that employed B2C e-commerce, the SMEs in B2B form of e-commerce more often used e-mail instead. Talking about the use of e-mail the manager from SME\_D said:

*With our international customers, we do everything by e-mail. They give us instructions; we send invoices, then they pay electronically, and sometimes we finish the contract without ever meeting in person or talking on the phone.*

#### **4.3.2.2. Social media Platforms**

The majority of the respondent SMEs reported the frequent use of social media platforms to help conducting business. When asked to comment on the role of social media such as Facebook, the manager from SME\_F described how the use of social media has been very beneficial for the business. She explained that they have always been avid users of social networks, as a result, they have been able to grow the community of followers and potential customers to almost ten thousand. Potential customers acquired through the pages either call their mobile phone, send Facebook or WhatsApp message to interact further and possibly complete the purchase. As she detailed:

*“The customer usually leaves a message or a comment on the picture on Facebook saying that they like the dress. We, then give them my number of the contact, and we continue to communicate in private about price, size, fabric and other details...”*

In the same way, SME\_B has used the popularity of Facebook and Instagram to create a community of followers that would at a later stage become potential customers. By using such platforms, they were able to build and maintain a good relationship with the customer. As the owner stated:

*“My posts became so popular that everyone wanted to buy the products I used in my hair, we only sell products that we have already tried and tested.”*

This way of interacting was also observed in SME\_A and SME\_C, where they also use their social media pages popularity to drive customers to their websites. By contrast, SME\_D and SME\_E reported low levels of social media use. They perceived it as beneficial only when interacting with individual customers. However, it is not suitable for transactions with larger organizations such as NGOs or government. Moreover, according to the manager of SME\_D larger organizations are their most important source of revenue, therefore activities in the organization are tailored to meet their needs. As she explains:

*“We are not very active on Facebook as others. Our client's e-mail or phone as directly”*

Social media accounts were viewed as the channels where in recent years, most of the new customers have been acquired. When answering a question of the most valuable channel for their business, SME\_A, explained:

*“The social networks are a crucial tool for our business, more than our website. At the beginning, most of our new clients are attained via Facebook.”*

#### **4.3.2.3. Education, expertise, and international experience**

A recurrent theme among the interviewees was the higher level of education combined with the experience of living or working abroad. In the case of SME\_A, the owner educational background was considered as an excellent contributor to the strategic application of ICT in general and e-commerce in particular for the business. As the owner explained, her expertise in computer science played a crucial role in her business decisions:

*“ Because I was studying computer science, everyone assumed I was able to fix computers, design websites and more, then I started providing basic technical support for a small company in my neighbourhood “*

Likewise in SME\_B, the manager had a degree in Telecommunication engineering and lived in Australia for several years while completing her master degree. This was a driver for the current

status of e-commerce and allowed her to quickly set up and manage all technical component with little to no support from outside ICT support team. As she detailed:

*“I was always a tech geek, so it took me almost 4 months, but I learned and managed to set up and administer all website by myself. While I was doing my master in Australia, I had more time and opportunities to learn about it... “*

Similar to the above SMEs, all the owners-managers of the remaining SME presented high levels of education and international experience that worked as drivers for their level of awareness and enthusiasm towards e-commerce. As the comment below from SME\_C manager shows:

*“Shopping online was so convenient and easy in Brazil, then made me realize that nothing similar was available in my country yet ...”*

#### **4.3.2.4. Technological Resources**

The availability of technological resources or lack of it surfaced as a critical factor for the development of e-commerce activities. According to the manager of SME\_F, the challenge of not having in-house ICT personnel puts strain on further developments and maintenance of e-commerce applications. She narrated that relying on an external firm for maintenance and website improvement made the costs very high. As a result, the website has not received any further improvements since it was created. As she explained:

*“...I think the main challenge is not having someone with expertise around here. If we could dedicated a little bit more of time to the website, or if I could afford someone just for that, it would promote more the website. ”*

Talking about the same issue, the manager of SME\_D said:

*“IT is not our expertise, so we chose to subcontract all the IT services. And we assign someone to update the website and serve as the link of contact with the IT Company, however she also has other duties in the company. It would be expensive to have employees full time here just for that, and I also think is not even necessary...”*

Likewise, SME\_B and SME\_C rely on the expertise of external ICT professionals. However, in their case, having e-commerce at the centre of their business model, they choose to use

international website developers, as they felt that in the local market they were not able to find expertise with capability for software development. As the manager from SME\_B put it:

*'I wanted a fully automated website and the local service providers were just wasting my time. I don't know I felt they couldn't do it. So, I contracted an international provider that came as a complete package with all the capabilities...'*

In the case of SME\_A, being an ICT organization, their employees in general had some degree of experience in software development and more advanced technical networking skills. The manager emphasized the fact that the organization was making further investments in software development, with a dedicated team for R&D, as she explains:

*"We do everything ourselves, I have a team of technicians that are well trained and with experience. You understand we provide this services to our clients, so we are good in that. Although, I have to admit that we still have a lot to learn, however for web development and maintenance we have what it takes..."*

#### **4.3.2.5. Top management Commitment**

In all the SMEs the leadership displayed considerable levels of enthusiasm regarding e-commerce and the relevance of it for their business. For example, the manager from SME\_A often emphasized having two active websites, a blog with ICT related information for clients, as well as a Facebook and Instagram in which they are very active as evidence of their commitment with e-commerce agenda. As she put it:

*We want to be on the top of the game, be always available online for our customers in all the channels. In our online stores our customers can browse all the products available, we include prices and payments with credit/debit cards or bank transfers.*

Similar levels of commitment were observed among the leadership of the other SMEs. However, in the case of SME\_D that was led by a relatively older manager, the primary informant – the owner/manager– attitude towards e-commerce was passive, she was not always aware of issues regarding e-commerce in the organization. She explained that all the decision related to ICT and e-commerce in general were taken by her son. However, with the increase of sales brought by e-commerce channels, she developed a more enthusiastic attitude about its potential to enhance the performance of their business. As she detailed:

*“I am not always so enthusiastic or have knowledge about technology, my main focus is always on my cakes and administrative issues. I confess that my sons are the ones always bringing new ideas, and helping the team implement them...”*

#### **4.3.2.6. Gender Stereotypes**

A fair number of the interviewed SMEs reported they faced gender prejudice while doing business. As the manager from SME\_A detailed, despite having a management experience and technical capabilities, very often she would encounter challenges when dealing with potential clients that would often show disbelief in an ICT company led by a woman. It was visible how societal prejudice influenced by cultural norms in the country towards women in business and ICT in particular, were harming the business. As a way to overcome this barrier, she invited her husband to join the company as a chief operating officer. Her comments below show:

*“... When we started getting many clients, I had to ask my husband to leave his job at a bank and come to work with me. It helped with clients that did not trust me because I am woman...”*

SME\_D similarly reported facing various hurdles to grow and get established. Among them, the lack of trust from business partners was a significant obstacle in the first years of the company. She encountered prejudices, particular from organizations led by men, which are the majority in the field she operates. As she recounted:

*“Being a young woman with a capable team but lacking seniority, I faced a lot of prejudice, people were very skeptical. It was a like the ‘chicken and egg’, they think you are very young and without experience, but without the work we couldn’t get experience. After three years, I invited two former male colleagues as senior partners, and previously closed doors suddenly opened.”*

In the case of SME\_C the business was a joint-venture between her and her husband since it started. Maybe this being the reason why she did not feel problems related with gender prejudices when conducting business where relevant.

Other interviewees working in not male-dominated industries, such as cosmetics, catering, and fashion, do not encounter the difficulty mentioned above, since most of their customers or even suppliers are fellow women.

#### 4.3.2.7. Government passive role

Institutional lack of support was perceived by the SME's as detrimental. SME's felt the government of Mozambique is not committed with the e-commerce agenda. An example was the lack of a functional e-commerce legislation in the country. This was viewed as a factor slowing down a full integration of e-commerce. SME\_C explains:

*"...doing e-commerce is taking risk, we are governed by the same laws of a normal business while our reality is different...For example, we are fully online based platform, in case of fraud I am not sure the authorities are going to help us, that is why we invest in security and take extra care regarding payments..."*

Additionally, the managers considered the government very slow in adapting to new technology advancements. They felt a general resistance from the government for various e-commerce related activities including awareness, financial assistance, and education. Talking about this issue the manager from SME\_A said:

*"...If we look at all country, there are few people with access to technologies such as smartphones or even computers, people don't have the know-how to buy online, and the government does not help as well."*

The manager from SME\_D expressed her concern with the resistance of government officials to use technologies themselves, as she explains:

*"I believe the government needs to put more effort in educating their people. For example, the same government official that use Internet, has personal email, Facebook, etc. But when he is representing the institution he changes. They always prefer long meetings, I believe it is a strategy to have opportunities to ask for bribes..."*

The manager from SME\_B was simultaneously working in her enterprise and an employee of the agency responsible for regulating electronic transitions in the country. Therefore, she was aware of the passive role the government was taking when enacting e-commerce laws. She viewed the government reactive role as a threat to the growth of businesses in the sector. As she explained, only in 2017, after an increase in the number of reported online scams the government enacted policies that regulate online transactions:

*“Our law makers are very slow, as a consequence we are always late in Mozambique. Many people lost their money with scams, and the police were not able to help because they did not have how to prosecute those criminal”*

#### **4.3.2.8. Market forces readiness**

The consumer preparedness or lack of it was also a critical factor shaping the process of institutionalization. For example, at SME\_A, the increase of their client’s portfolio, to include some international enterprises operating in the country, as well as NGOs, was an essential contributor to the rapid development of their of e-commerce capabilities. They had to quickly adapt to comply with the international client's way of doing business. As she explained:

*“...At that time we started to have big clients, I felt we needed to invest more in our technology solutions to appear more professional, and compete with many Portuguese ICT firms that were starting to establish in the country “*

In the other hand, the experience of SME\_B showed how customer’s preferences for viewing and inspecting products prior to buy dictated certain changes on the business model. While designed to be a 100% online experience, the company had to partner with some local hair beauty salons to provide a physical store where clients could inspect the product before buying. As a consequence of the customer’s preferences, operations in SME\_B are now a mix of an online store and approved resellers of the product. As she explained:

*“Our objective was to sell online simply, but Mozambican reality showed us a different story. Everyone used to call asking where he or she can see or apply the products, so I decided to partner with two salons in Maputo that are serving as alternative points of sale. Clients from other provinces and abroad buy from the site, they have no option... “*

SME\_C observed that majority of local consumers were very comfortable with traditional forms of grocery shopping, not showing a positive attitude toward online grocery shopping. As a result, although originally designed to target Mozambican consumers, the majority of the platform early adopters consisted of foreigners living in Mozambique. Therefore, their client’s database is predominantly comprised of expats. As the CEO explained:

*“We recognized that people here like going to the supermarket, especially women, they enjoy leaving the house to walk in various markets. This is a disadvantage to our business as we imagined serving all Mozambicans, but the reality was different, we are not accustomed to this kind of platform and it takes time to reach this stage..... The expats are used to shopping online, because in their country of origin it is common, so to build our clientele and trust quickly we were very focused on them at the begin...”*

While at SME\_F, the website only caters to customers located outside Mozambique. To the extent that the content of the website is only displayed in the English language (Note Mozambican official language is Portuguese), When asked the reason for this strategy, she explained that her local customers are used to come directly to their offices or to place orders using email or social media pages. As she stated:

*“...it is fine like that; he website is to have international visibility, people from here are more on Facebook, Instagram and WhatsApp...”*

SME\_F reported a certain level of hesitation from customers to make payments without seeing the products first, especially from customers that are outside of Maputo. To overcome this issue, SME\_F developed a strategy that requires upfront payment of only half of the price of the order. The rest of the payment is received when the order is ready for shipment. This process adds extra labour to the process.

With respect to the distributors in the supply chain, SME\_E noted that most parts of their suppliers are very reluctant in adopting e-commerce. The majority of the local retailers often questions the necessity of e-commerce in their business, with some going to the extent of not accepting payments made through the bank, only accepting cash transactions. As she explained:

*“...suppliers are an issue, only very few have a more practical approach. For the others, we still have to go there by ourselves every time, some even don't accept POS, or electronic transfer, and it is a nightmare...”*

#### **4.3.2.9. Supporting industries readiness**

The high price associated with some fixed costs required to maintain the business online, such as security certification, was another source of discontent. SME\_A perceived security certificates as

very costly, to the extent that the organization's website as of the time of the interview was offline. The respondent indicated that their security certificate was outdated and they were looking for cheaper options, as she explains:

*"It costs us more than 500 USD per annum for the security certificate, I am looking for alternatives, and the number of sales completed through the website does not justify this cost..."*

In the case of SME\_B, the manager felt the local ICT service providers had no capacity to successfully perform the type of service required. She credits all the features of the website to the fact that it is a complete package provided by an international webhost provider, although it does come at a relatively high cost. She points that it was in her view the most reasonable option. Because in her opinion no local provider would be able to implement all the technical features she envisioned to the website:

*"I wanted a fully automated website and the local service providers were just wasting my time, I don't know I felt they couldn't do it..."*

SME\_B, SME\_E, and SME\_F websites are hosted by an international webhost. They explained that the costs were reasonable considering that included all the necessary security features, and back-end management. The manager of SME\_B explained, that while she was interested in using the local domain "co.mz." for her website, the costs were 4 to 5 times higher when compared with the international domains.

Electronic payments were another source of concern among some SMEs. The interviewees view the Mozambican banking system as unsupportive of e-commerce activities when compared to other countries in the region. Such inadequate system is especially detrimental, as the percentage of Mozambicans with access to credit cards is very low. As a result, the majority of the payments require the customers to go to the bank or transfer through the bank platform and then email or WhatsApp the proof of payment. This, introduces delays in the process. As explained by the manager of SME\_B, when asked about methods of payment:

*"No, the client has to send me the proof of payment after deposit. It is not automated. Only for credit cards, and very few people use credit cards. But at the end of the day it works, gives us much work but is better than nothing."*

The inability of the banks to support e-commerce transactions was perceived as a limiting factor preventing e-commerce progress. When asked about the most common payment methods used by their customers, the SME\_E manager also noted that cash and electronic funds transfer are the favourite. However, with no instant electronic transfers accepted between different banks, there are a two days waiting period when funds were transferred from a different bank. The manager highlighted the inadequacy of the current method:

*“..Checks are almost a thing of the past, now everyone transfers directly to our bank account. However, we take caution when receiving money from a different bank, there is a one or two days wait for the money to reflect in our account. In the past we had some unfortunate events...”*

Lack of Internet access is another detrimental factor for local costumers on their journey to a full e-commerce experience. The speed and levels of Internet access among consumers are still relatively low. As the CEO of SME\_C explained the organization website had to be redesigned to address the problem:

*“... Our Internet is very slow; when we choose this business model we knew that we had Internet with this speed. So, for example we had to compromise on picture size in our website to guarantee less download time...”*

The inability to deliver products in a cost-effective manner was another recurrent challenge. Most of the SMEs only arranged delivery services for customers making large orders or living in the surrounding areas, as the costs associated with delivery are very high. As described by the manager of SME\_E:

*“There is no way I can deliver only one cake to a client in Matola, it is just too expensive and time-consuming. Because many neighbourhoods don't have street numbers, our driver had to call and ask the client to direct him to his or her residence. We tried to do that for a while, but we are no longer doing it. We only deliver for enterprises, which are normally located here in the city.”*

The lack of financial capital to expand their operations was considered to be an obstacle to growth by some of the SMEs. The country almost non-existent venture capitalist market hindered the organization capability to access a required investment. As access to finance is mostly only available through traditional credit providers such as banks that require collateral.

SME\_C detailed how they were able to secure a line of credit through a local bank, the credit was used to lease vehicles for the delivery of their products. However, she believes that having her husband as CEO did help to facilitate the process:

*“To be honest we used our own money to start the business, to secure leasing for the vehicles we used some of my partner assets as collateral. Otherwise I don’t think we could have got, banks don’t like to finance start-ups...”*

Similar experience was observed in SME\_D and SME\_F. The difficulty in accessing capital for growth was a problem for them. In the case of SME\_D it was only possible to get a loan when using the family house as collateral, as she detailed:

*“It is difficult for us to get capital for business, I was lucky because my husband understood and was willing to give our house against the loan, otherwise I am pretty sure they would not give me, especially being a woman enterprise...”*

#### **4.3.2.10. Economic Recession**

The economic crisis that affected the country in the end of 2015 had a vast impact on businesses in the country. All the interviewed SMEs complained about the negative effect the recession was having on their business. SME\_A manager detailed how various projects were interrupted due to the very low turnover during this period:

*“... 2015 and 2016 were tough years for us and most small business, we were losing clients, we had to reduce or cut investments in various new projects, we just entered in surviving mode...”*

Similarly, in other SMEs, the volume of sales have dropped considerably. The high level of inflation has forced them to increase the prices of their products and services. Especially in the imported products, where the increase could go as far as double the initial price. As a consequence of the low profits no additional investments in e-commerce were being made, as SME\_B manager detailed:

*“Now we are more concerned with the crisis, is difficult to plan ahead. We are in ‘survival mode’ as my partner always says. We are getting by with what we have...”*

#### **4.4 Summary of the chapter**

This chapter presented a descriptive narrative of the six cases under investigation. Which included details about the type of e-commerce being implemented in each SME, and the factors that have influenced the process of institutionalization.

The following chapter presents a cross-case analysis of the findings (*level 3*) and a discussion in the context of the extended literature (*level 4*).

## **CHAPTER 5: CROSS-CASE ANALYSIS**

### **5.1. Introduction**

Following the report of the themes that emerged among the investigated cases in the previous chapter, this chapter presents a cross-case analysis of the findings (level 3), while discussing them in the context of the extended literature (level 4).

### **5.2 Cross-case Analysis**

In this analysis, the evidence across the cases was compared to illustrate specific patterns. In Table 6 a summary of the key findings are presented. The outcome of this analysis was the aggregated shared and unique experiences of these SMEs process of institutionalizing e-commerce. First, the content of e-commerce in the SMEs is explained, by analysing the type and characteristics of e-commerce being used among them. Second, the dynamics of the external and internal factors shaping the process are presented. Finally, how the process of institutionalization unfolded in the organizations is explained by the process.

	Themes derived	Key findings
Content	Use of e-mail and mobile phones	The adoption of e-mail and mobile phones to undertake or complete transactions is a common practice among the SMEs.
		Mobile payments are not widely spread among SMEs.
	Social media as an e-commerce platform	The popularity and simplicity of social media are seen as an alternative to traditional marketing channels and a way to reach a wider audience.
		The integration of social media in e-commerce is perceived to offer more benefits to organizations that offer tangible products.
Internal Context	Attitude towards e-commerce	The intersection of age and education does influence women's attitude towards e-commerce.
		Experiences from international markets help to shape decisions regarding e-commerce.
	Resources availability	The availability of resources had a positive impact on the SMEs e-commerce endeavor.
		Business partners in the developed economies is a valuable business resource.
External context	Government passive role	The government does not prioritize policy formation and regulation of the e-commerce environment.
		The government does not champion campaigns, training, and financial services to support e-commerce.
	Supporting Industries readiness	Lack of adequate and reliable logistical infrastructure hinders e-commerce.
		E-commerce payments are predominately made by bank transfer and cash.
	Market forces readiness	Local customers lack the power of purchase
		Local business partners' lack of readiness hampers the e-commerce development.
	Socio-cultural norms	Existing socio-cultural expectations about women roles exacerbate the challenges of the SMEs.
		Local socio-cultural shopping habits that are difficult to mimic in an online environment hinder e-commerce growth.
Process	Growth stages and scope of e-commerce	The scope of the SME determines the type of e-commerce being pursued how far the SME will go on
		SMEs do not follow the traditional e-commerce stages of growth.as defined by (Molla & Licker, 2005a).

**Table 6 Summary of key findings of the research**

### 5.2.1. Content

The use of website coupled with e-mail or mobile phone for undertaking or completing business transactions is a prevalent practice in all the SMEs. Mobile phones were reported to be particularly useful in providing a reliable mean to perform business functionalities, such as direct communication with customers at any time or location. Even in cases where web-based e-commerce with transactional capabilities were available, SMEs reported that costumers often preferred to communicate with them prior completing the transactions, either by call or WhatsApp messages.

These findings mirror various others found in the literature. Wamuyu and Maharaj (2011) revealed how the use of mobile technologies was facilitating e-commerce in Kenyan small enterprises. Corroborating with their findings, Kabanda (2011) described the hybrid view Tanzanian SMEs had of e-commerce. They perceive e-commerce as a mix of a static website and mobile payment capability. However, in the case of Mozambique, mobile phones are used only to communicate. Although mobile payment technologies such as M-Pesa are available, it is not widely spread in all the regions of the country. The most utilized methods of payments include bank transfers and cash-on-delivery. As a result, SMEs have not adopted mobile payments. Among the interviewed SMEs, only SME\_A revealed an intention to integrate mobile payments into their business in a near future.

Another common characteristic was the use of social media platforms. All the SMEs make use of social media websites. However, their way to use the platforms differed in some particularities. None of the SMEs mentioned using traditional marketing strategies such as TV ads or Billboards. They use social media features to their advantage to build relationship and trust with potential customers. Features such as: customers reviews written directly into the organization's account, direct reception customers feedback, and customers referencing a product on their accounts mimic the traditional word-of-mouth marketing in an electronic environment. The electronic word-of-mouth combined with the simplicity and widespread use of social media platforms were able to help these business reach wider audiences. As the owner of SME\_F put: *'my clients are no longer from Maputo only, I have clients all over Mozambique thanks to my Facebook.'*

The value of social media to increase public awareness of e-commerce has been confirmed through the literature. Jagongo and Kinyua (2013) found that SMEs in Kenya were also able to use social media to build their business brands, overcome limited marketing resources and create a relationship with customers, which also confirmed that the increase of direct interaction with customers was enabling to build trust with customers, that is often transferred towards community trust, and further leads to more sales (Chen & Shen, 2015; Lu et al., 2016). Another issue reported in the literature is the relatively higher level of use of social media by women businesses when compared with their male counterparts. The social nature of women, makes them more likely to utilize social media platforms to perform or even create new ventures (Sharma & Grewal, 2018; Ukpere et al., 2014). SME\_B business owner is a validated example of women that leveraged personal social media platforms to commence her business.

On the other side of the spectrum are SMEs which do not seem to derive many benefits from actively engaging in social media. For instances, SME\_D and SME\_E, which are mainly service providers with the majority of their clients being other business, did not perceive social media as an adequate channel to interact with their customers. This view is confirmed by Sharma and Grewal (2018), that described how social media e-commerce is more beneficial for SMEs that offer products which are tangible.

In the context of this research, despite any challenges, women-led SMEs in Mozambique are able to utilize the social component of the social media platforms to their advantage. Throughout the above discussion, it has been demonstrated how the combination of commercial and social activities has been able to ameliorate some of the traditional barriers to e-commerce. This is particularly important in developing markets where human and social elements of commercial transactions are highly valued (Kabanda & Brown, 2017). The success of this new phenomenon, often called social commerce, is mainly attributed to the role of the social aspect that traditionally shapes commercial activities (Lu et al., 2016).

### **5.2.2. Internal context**

It is often said that age is just a number, however, in the context of e-commerce institutionalization by women-led SMEs in Mozambique, age seems to play an important role. The findings revealed

that SMEs that are led by relatively older women (SME\_D and SME\_E, 45 and 51 years old respectively) are less knowledgeable and enthusiastic about more advanced forms of e-commerce. They are content with the use of a static website and other simple applications. By contrast, the group of women with an average age of 29 years old displayed a more positive attitude towards the benefits of a transactional form of e-commerce. Revealing that younger generations are more likely to take risks and try new technologies. These attitudes do not seem to be peculiar to the Mozambican reality. Findings from a study conducted in Nigerian SMEs found that older generation of SMEs did not see the need to learn or implement new technologies. They were satisfied with the use of mobile phones combined with other traditional ways of doing business (Agwu & Murray, 2015).

Surprisingly, all owners-managers are very well educated: One of them holds a Ph.D. degree (SME\_D), one with a Master degree (SME\_B), three with a bachelor degree (SME A, C, and F), and one with secondary education (SME\_E). This is an interesting fact in a country where the percentage of the population with higher education is only one percent, and adult education levels among women are at a much lower rate than men (Roby et al., 2009). However, it was observed that the women in the study were from the upper-middle class, and had studied or worked abroad. These experiences of working and living abroad as women from a more advantageous background, well-educated, and with international exposure helped to shape the SMEs they lead decisions and experiences with e-commerce. These observations are confirmed by Showunmi et al. (2016) in their study of intersections between classes, education and ethnic in British women's leadership experiences. They concluded that women from middle-class upbringing have more sense of possibility and personal power than women who grew up in poverty.

Except for SME\_E, all of the other SMEs owner-managers reported having experiences studying, living, or working abroad. In most of the cases, the desire to mimic international e-commerce success stories was one of the main drivers to institutionalize e-commerce. The cases of SME\_B and SME\_C highlight this practice. They developed e-commerce websites based on their experiences using similar services while living abroad. As a result, they were able to very quickly develop a more advanced form of e-commerce prevalent in the developed world. However, the lack of customer's readiness to engage in full transactional e-commerce led them to adapt some of the features to the reality of the country. As the manager of SME\_C commented: "...so, we are

*trying to make some changes to appeal to the local consumers. Now, we still have many foreigners that live here using the platform.”*

These hurdles were consistent with what was found in literature, where it was reported that for various reasons customers and some businesses in some developing countries were unimpressed with the potential benefits of institutionalizing e-commerce (Kabanda & Brown, 2017; Mutua et al., 2013).

A combination of the factors discussed above was able to translate into energy and support for e-commerce and its impact across the organizations, especially from the top of the management team. The top management commitment with e-commerce was evident among the SMEs, even in SMEs that were content with relatively simple use of the technology (SME\_D and SME\_E). Management commitment towards technology adoption is well documented in the literature as one of the crucial factors for successful institutionalization of e-commerce (Boateng et al., 2011; Tang Sai & Standing, 2015).

Throughout the interviews and observations, it has been noted that the availability of resources or lack of them played an essential role in shaping the institutionalization process in the SMEs. In terms of human resources, such as ICT skilled personnel used to deploy and maintain e-commerce solutions, the study revealed a preference for outsourcing of these services. Five of the SMEs make use of external ICT firms for support and maintenance of e-commerce applications within the organization.

On the other hand, SMEs that did not have e-commerce at the core of the business – SME\_D, SME\_E, and SME\_F – were satisfied with the services received from local firms. These findings are aligned with literature, which points out that in general small enterprises tend to rely on external expertise for ICT support (Shemi & Proctor, 2013; Tran et al., 2014). However, SMEs viewed the costs associated with these services as a detrimental factor in a long term. The financial ability of SMEs to maintain updated website is a concern well documented in the previous literature (Li & Xie, 2012; Morris & Proberts, 2013). However, the response to this barrier is different in each SME. For example, in the case of SME\_F, the website has not been updated since the time it was set-up, the manager explained that the revenue generated by the website at the moment did not justify

further investments. SME\_E made only few changes when updates were required; They turn to family and friends with ICT skills for help. Even SME\_A that has available in-house ICT expertise lamented the higher costs of security certificates required to their website. Therefore, it must be noted that the financial issue is a key challenge often reported by SMEs at different stages of adoption (Shemi & Proctor, 2013). Nevertheless, the financial factor alone does not seem to account for the sluggishness in moving forward with the e-commerce agenda by the SMEs, since they have managed to conduct business transactions through their websites.

Regarding business resources, one of the most common and often cited by the interviewees was the existing business relationship with international partners. In some of the SMEs, business relationships with partners have helped to shape the e-commerce activities. For example, SMEs for which the majority of the suppliers are outside of the country, they felt more pressured to adapt to modern ways of conduct business (SME\_A, SME\_B, and SME\_F). On the other hand, those that often dealt only with local suppliers and consumers did not have the same outcome. As outlined by SME\_D, some of their suppliers were so reluctant to modern business practices to the extent of only accepting cash payments.

In the context of the SMEs investigated in this study, resources such as within organization ICT support, relationships with local and ICT foreigner companies, as well as foreigner business partners were perceived to be conducive to the e-commerce agenda. On the contrary, the cost associated with maintenance and the lack of ICT firms with software development expertise was more detrimental to the cause. The findings are aligned with Molla and Licker (2005b), which indicated that as SMEs in developing countries adopt more advanced e-commerce practices, human, business, and technological resources hurdles that traditional act as barriers to e-commerce become less detrimental to the cause.

### **5.2.3. External Context**

The role of the government's interventions in policy formulation, regulation, and facilitation of e-commerce has been well described in the literature b(Boateng et al., 2011; Quagraine & Ariwa, 2016). When asked about legislation regarding e-commerce in the country, only SME\_B displayed

any knowledge of government efforts to regulate online transactions. The other SMEs were not certain about how is the legality of the environment in which they are operating. There was a general perception among the interviewees that the government support for SMEs in ICT endeavours was almost non-existent. The lack of support might be attributed to the lack of resources and human capital with adequate knowledge to intervene (Mabila, 2013). The lack of human and technical resource resulted in a government with a ‘wait-and-see ‘approach toward the issue of regulation of e-commerce. This resulted in an environment that did not breed positive growth for online transactions. The country only enacted a law aimed at regulating electronic transaction in January of 2017, so it is not well-known by the public, and the impact of the implementation is yet to be felt.

The SMEs considered that not only legal norms are necessary, but other supporting mechanisms are also fundamental. Mechanisms such as financial assistance, reliable network infrastructure, specific training on ICT/e-commerce, and reasonable Internet access costs are of the utmost importance. SME\_B, SME\_D, and SME\_F explained the challenges they faced when searching for funds to expand business activities. Others complained about receiving weak support regarding knowledge deployment – only general entrepreneurship training are available – and raising awareness of the general public about e-commerce. There was a general agreement that the inability of the government to support them in various aspects was a discouraging factor.

These findings are at odds with those by Scupola (2009). When studying SMEs in Denmark and Australia, he revealed how the government role was not deemed critical by SMEs from those countries. However, like Hu et al. (2004) described, the “hands-off” policy approach it is not adequate for the reality of developing countries. Which contrary to their developed counterparts do not have well-developed infrastructures and diversified private sector, and the government is mainly concerned with issues of regulations and policy guidance only.

Overall, there is a general understanding that the government lacks readiness for e-commerce. This was mainly attributed to the failure of the government in creating a safe and predictable environment for e-commerce to thrive. Nonetheless, the reality is that laws usually lags behind technological developments (Hu et al., 2004). As a result, many businesses – especial in

developing countries – are obliged to bear the risk of operating in uncertain environments, as it has been the case for the interviewed SMEs for a long time.

As mentioned in the previous section, SMEs thought the industry is not capable of providing the necessary support for e-commerce institutionalization. One of the most problematic issues was the inability of the banks in providing secure and reliable methods of payment. Only one bank in the country supports the use debit cards or instant EFT online payments. As a result, some websites only accepted credit cards, bank deposits or PayPal (requires having a credit card). However, credit cards are not widespread among the local customers. This is expected in a country with very low levels of financial inclusion, where 60% of adult population are financially excluded i.e. without access to a bank or mobile account, very few can access credit cards. Not to mention that mobile money payment has only taken off in the last three years in the country. To date, only 10% of the adult population makes use of mobile payments; it explains the fact that direct bank transfers, cash payments or POS were the most common method of payments in the study. While direct bank transfers are not a dominant method of payment in the e-commerce literature (Huang & Benyoucef, 2013), in the case of the SMEs in this study bank transfers enabled them to bypass the barrier of credit cards and receive payments. These findings mirror those of Mutua et al. (2013) that points to the lack of financial instruments as a hindrance to e-commerce development.

Turning now to the delivery system in the country, the majority of the SMEs complained about the inadequate transportation and roads systems across the country. The delivery system in Mozambique as in many developing countries is not reliable. The absence of a physical address infrastructure is a further burden to the SMEs that have to rely on informal and patchy solutions to delivery of goods and services. As a result, some SMEs choose not to offer delivery services because of the high associated costs. These results agree with the findings of other studies, in which lack of street names and postal numbers inhibited e-commerce development (Boateng et al., 2011). However, other researchers have argued that the effects of the lack of reliable logistics services is minimal for e-business (Okoli et al., 2010).

Pressure from customers and suppliers are known to be a driving force for e-commerce (Boateng et al., 2008a). SMEs in this study reported pressure from international suppliers and customers. However, the local market did not display the same level of readiness. Although there was a specific demand from local costumers– particularly those living outside the capital Maputo– the

market size is still relatively small, as reported in the literature review only 17% of the population have access to the Internet. In addition to the small market, the customers have a low purchasing power that is being exacerbated by the economic recession that is affecting the country since 2015. All the SMEs reported experiencing a general decline in business as costumers held back from buying their products and services. They felt so strongly about this issue to the point that they pointed out directly in various moments during the interview without having the researcher asked. These findings are consistent with literature which confirms that low internet penetration and purchase power are factors that inhibit e-commerce spread (Chong et al., 2012).

All owner-managers were unanimous about the impact of societal gender stereotypes to their businesses. Nonetheless, it was noted that SMEs which are operating in sectors that are traditionally male-dominated faced more adversities. This was the case of SME\_A, SME\_C, and SME\_D, that described how they face prejudice when dealing with potential customers. This lack of confidence from business partners was perceived as detrimental for the business in general and e-commerce in particular. Because it diminishes their capability of acquiring more customers, as a consequence less turnover that translates into less funds available to pursue e-commerce activities. To circumvent this obstacle, SMEs managers resorted to strategies such as: employing male business partners or working with their husbands. As SME\_D detailed: *'...when I invited two former male colleagues as senior partners, previously closed doors suddenly opened...'*

On the other hand, SMEs that operated in traditionally female-dominated industries acknowledged the practice but did not view it as a significant problem for them. These findings are aligned with those of Ritse and Richard (2015) when investigating Nigerians women-owned SMEs adoption and use of e-business, which concluded that some of the challenges faced by those women were related to their gender. In the case of developing countries such as Mozambique, socio-cultural expectation about the roles women play in a society associated with institutional biases further exacerbate these challenges (Buskens, 2010; De Vita et al., 2014).

Another recurrent theme was the nature of local business partners. Suppliers and customers preferences have dictated the direction of e-commerce in the selected SMEs. For example, habits such as inspecting products or extensively discussing the service before payment, and the social connection created by physical shopping are difficult to emulate in an online environment. These

customs have shaped the form of e-commerce being employed in most of the SMEs, which is based in one or a combination of mobile phone, e-mail, social media and website, and offline communication. These findings are consistent with those of other studies which suggest that some cultural practices function as obstacles in the progression of e-commerce (Kabanda & Brown, 2017; Vatanasakdakul et al., 2004). Contrary to previous studies (Kiondo, 2007; Vatanasakdakul et al., 2004), this study did not find the language used for communication as a significant barrier to e-commerce. A possible explanation may be related to the fact that managers and employees of the respondent SMEs are well educated, they are fluent in the language of the country – Portuguese – and proficient in English, the primary language of the Internet. It is essential to bear in mind that level of education and class of the respondents' it is considerably high when compared with the general population of the country.

The willingness to share information and advice is another feature in Mozambican social scenery that is perceived as beneficial for e-commerce. According to the interviewees, it is common to socialize with business partners to strengthen business relations, sharing information and even mentoring other women in business is a common practice. For example, SME\_D runs a mentorship program for women in the informal sector, SME\_A and SME\_C often interacting regarding business opportunities. This accords with previous literature where Maier and Nair-Reichert (2007) states that in general women managers are more comfortable in disclosing information, engaging in informal conversations, and have a higher sense of collectivism.

Taken together, these results highlight the importance of the social-cultural context to e-commerce. Entrenched social norms dictated the direction of e-commerce in many developing countries.

#### **5.2.4. Process of Institutionalization**

The discussion of the process of institutionalization is based on the interactions of factors that shape the process and how this interaction determine the extent of institutionalization. There are SMEs that have been able to reach transactional levels (such as SME\_A, B, C, and F), while others only have been able to reach interactive status (such as SME\_D, and E). As such, it is fundamental, to understand how these interactions of factors are assisting SMEs to attain these levels.

For SME\_A, a small ICT firm, the early stage of the e-commerce adoption was influenced by factors such as managerial education and international experience, and the already existing ICT

applications such as e-mail, and Internet that were used to contact and buy products from international suppliers. The high interaction of these internal factors (external factor: international suppliers) yielded a favourable outcome for SME\_A. They began with a website for marketing purpose that was complemented by e-mail or mobile communications for completing the transactions. The continuous commitment of the top management with e-commerce resulted in large investments in technical resources and ICT expertise. This combined with pressure from competitors and local market development, led to further developments that resulted in a transactional website with the purpose of selling products to the local market.

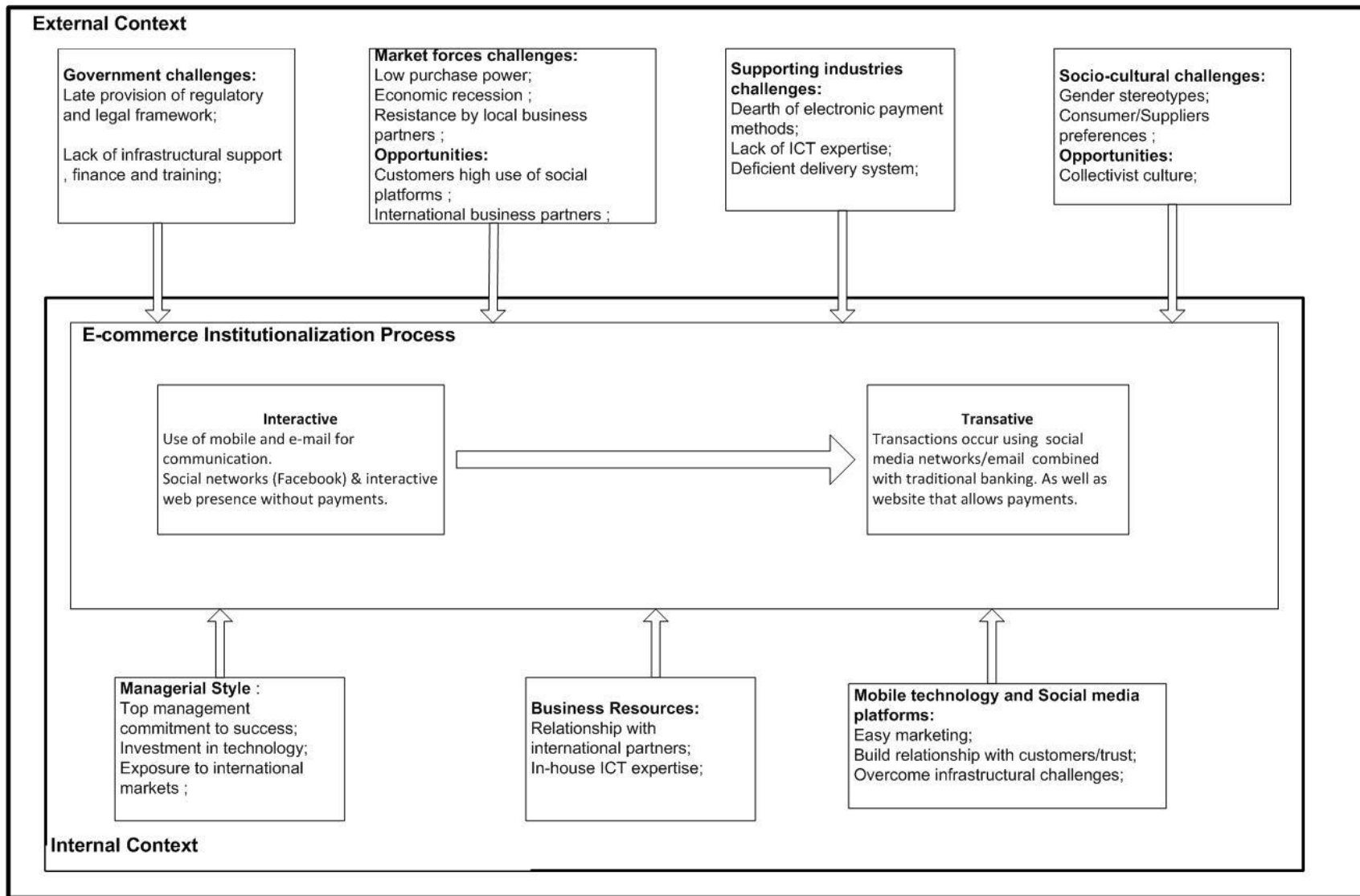
In the case of SME\_B and SME\_C the capability to resort to international market for ICT expertise was a strategic move that gave them competitive advantage. In addition, with the desire to mimic international e-commerce experiences resulted in the use of a transactional form of e-commerce since the organizations were first established. Challenging the popular assumption that e-commerce development in organizations usually follow the steady stages of growth (Daniel et al., 2002; Molla & Licker, 2005a; Ngai & Wat, 2002; Tan et al., 2007). For both the SMEs, e-commerce plays a central role in their business model, as they invested in the business and technological resources that yielded very good results. Furthermore, their experiences match those observed in previous studies where SMEs took advantage of external service provider for technical support (Caldeira & Ward, 2003). On the other hand, both the SMEs were also impacted by the top management commitment and focus on the website to deliver business objectives; none of them has a physical store, which leads to a mode of operation requires that customers purchase online. However, customer's preference for inspection of products before purchasing has led SME\_B to partner with other businesses to create a points of sale where inspection is possible. As a result, local customer readiness impacted the extent of institutionalization at SME\_B.

When the main customers are larger organizations such as NGOs or governments, as is the case of SME\_D and SME\_E, the e-commerce institutionalization process is highly impacted by the needs of these organizations. Governments in developing countries are known to be slow adopter of new technologies (Awiagah et al., 2015). As a consequence, the extent of institutionalization in these organizations is slightly low if compared with the other SMEs.

In the case of SM\_E, particularly, another contributing factor to current status is the reliance only on local suppliers, which make limited or no use of technology when conducting business. The interaction of these factors with others such as lack of available in house ICT expertise has slowed the process of institutionalization in this SME. However, both SMEs are satisfied with the current use of e-commerce, they have no intention to make further developments. The website and some social media platforms as marketing tools associated with e-mail, mobile phones, and other Internet applications are sufficient to fulfil their needs. They have chosen this strategy despite possessing resources to improve e-commerce activities.

In the case of SME\_F, their journey through e-commerce began with social media platforms and the website was introduced much later. Due to the nature of the business, they had significant number of customers from foreign countries which helped to shape the direction of e-commerce development in the organization. As an example, their transactional website only cater to international customers, the only available method of payment is PayPal which is not common among locals. While for undertaking business with local customers a combination of social media platforms and mobile phone/email for direct communication has been sufficient. The interaction of these external environment factors has highly impacted the process of institutionalization in SME\_F. They have chosen to follow two different strategies for different markets.

In Figure 3, a summary of the identified factors that influence the process of institutionalization are shown. For women-led SMEs environmental factors are perceived to be more detrimental for the organizations. However, despite the challenges, the interactions with various internal organizational factors that are conducive for the institutionalization have yielded good results for the investigated SMEs.



**Figure 3 Application of Results of Factors Influencing e-commerce Institutionalization**

### **5.3. Summary of the chapter**

This chapter analyzed and discussed the findings across the cases as to understand how women-led SMEs in Mozambique conceptualize e-commerce and how the internal and external context shaped the process of institutionalization of e-commerce into the SMEs. The analysis revealed that SMEs in this research conceptualized e-commerce as a combination of mobile/email for communication, social media platforms for marketing /communication, and interactive or transactional websites. Results also indicated that both the internal and external context of the SMEs had shaped the e-commerce institutionalization process. However, when SMEs reach a transitive or interactive stage, environmental factors is seen to be harmful to the advancement of e-commerce. Particular, the government passive role, the market and supporting industries lack of readiness, as well as social norms that dictate the ways businesses are conducted in the country. On the other hand, organizational factors such as the top management support linked with the level of education and exposure to international markets helped to create a conducive environment for e-commerce to flourish.

## **CHAPTER 6: CONCLUSION AND RECOMMENDATION**

### **6.1. Introduction**

The purpose of this study as presented in chapter 1 is to investigate the e-commerce institutionalization in women-led SMEs in Mozambique. Of particular interest are the contextual factors that shape the process of institutionalization. The chapter commences by revisiting the research questions, with the objective of review the extent to which the questions have been answered. The next section presents the contributions and recommendations of the study. This is followed by a section on the limitation of the study, and finally the outline of future work that could be carried out is presented.

### **6.2. Revisiting Research Questions**

#### **6.2.1. What are the contextual factors that contribute or inhibit to the institutionalization of e-commerce in women-led SMEs?**

The findings suggest that the contextual factors influencing e-commerce institutionalization by women-led SMEs are both internal e external. However, in the context of Mozambique, internal organizational readiness contribute more positively to the institutionalization. The top management innovativeness, enthusiasm and support are factors identified as key contributors that stand out among all the cases. Additionally the availability of business resource, as well as mobile technology and social media platforms usage. As organizational challenge this study identified the lack of available ICT expertise. Environmental factors that were perceived as contributing factors for e-commerce institutionalization includes; market forces and some socio-cultural features. While the government lack of readiness, lack of industry support, as well as some socio-cultural and market forces particularities were perceived as challenges to the institutionalization process. Taken together, these results suggest that the internal organizational factors are regarded as opportunities that contribute to the institutionalization, whilst most of the environmental factors tended to be perceived as a hindrance.

By focusing in these contextual factors, this study makes several noteworthy contributions that SMEs, practitioners, governments, and other stakeholders involved in the e-commerce and socio-economic empowerment of women need to concentrate on for effective institutionalization of e-commerce by women-led SMEs.

### **6.2.2. How do these factors interact to induce the e-commerce institutionalization in women-led SMEs in Mozambique?**

This study adopted the contextual theory key components as a basis from which to conceptualize e-commerce institutionalization in the investigated SMEs. Through the examination of the dynamic links between the content, the context (internal and external), and the process of e-commerce institutionalization, it was possible to determine how the degree of interaction between the factors helps to shape the application of e-commerce in the organizations.

The findings of this research demonstrate that, SMEs attain great levels of institutionalization and satisfaction when enabling factors within and outside the organization interact positively. External factors such as international business partners (suppliers or customers), pressure from competitors, and new markets make a great contribution to the extent use of e-commerce applications within the organizations. The interaction of these external factors with contributor factors within the organization such as the top management commitment, enthusiasm with e-commerce agenda, and availability of ICT expertise.

The cases of SME\_A, and SME\_B are a good demonstration of how organizations reaped benefits from this interaction. Due to the high interaction with international partners, they have been able to very quick attain a transactional form of e-commerce. Additionally, by actively using their website and social media platforms not only for marketing purposes but for transactional purposes as well, the benefits of e-commerce were always felt. In the case of SME\_C, additionally to the benefits mentioned above, there is also consideration that online sales is the sole method of business delivery.

On the other hand, the interaction with some external factors contribute to a relatively slow reap of benefits from the institutionalization of e-commerce. As the evidence from this study showed, when the organization main business partner are organizations which are relatively slow adopters

of technologies, the extent of institutionalization is slightly low. SME\_D and SME\_E cases illustrated this interaction. By mainly interacting with organizations such as the government of Mozambique they saw no need to further improve their e-commerce capabilities.

### **6.3. Contribution and Recommendation**

The present study makes several noteworthy contributions to the literature and practice. First, this study makes a theoretical contribution by combining multiple theories (contextualism theory and Perceived E-readiness Model) to underpin the research. The use contextualism theory for the investigation, it covered the whole process of institutionalization while allowing for a deep understanding of the process. Combined with the PERM original themes that proved to be well suitable for the unique characteristics of SMEs in an LDC such as Mozambique. It allowed highlighting the importance of the context in which the process of institutionalization unfolds. The use of multiple theories and an interpretive approach has provided a better understanding of e-commerce institutionalization from the SME owner's/manager's perspective. An understanding that in the case of women-led SMEs in Mozambique, associates e-commerce with social media platforms, and mobile technology. Therefore, making them a very important characteristic of e-commerce in these SMEs.

Second, this empirical study of the institutionalization using an interpretive approach provides SME managers, practitioners, and other stakeholders concerned with women development a better understanding of the process in order to develop appropriate policies and interventions that are suitable for the reality of women-led SMEs in Mozambique or other LDCs with similar contextual characteristics. SME managers in LDCs can learn from the different experiences, and compare their e-commerce efforts with these of SMEs that were able to institutionalize and make strategies for improvements within their organizations. Hence, eliminating the need for “trial and error”, consequently reducing the investment costs, which is particularly important for women business that in generally face more challenges to access capital. Additionally, from the findings of this study SMEs managers have the ability to get a better understanding of the existing challenges in the external environment, especially the ones faced by women. The managers are consequently

able to effectively plan how to react with appropriate set of actions to these influences imposed by the environment.

For the government, the results of this research echo similar calls to not only provide but also promote relevant e-commerce legislation (Mutua et al., 2013). For example, a study from Miraz et al. (2016) which examined women-led SMEs in India, found that the government role in providing the initial impetus and the ongoing momentum for e-commerce business initiatives among women was of the utmost importance. With regard to the government of Mozambique, it was found to be very slow in providing an enabling environment for e-commerce to thrive. Furthermore, it is imperative that the government assistance provide not only regulation but also facilitates the formation of networks and training that improve the SMEs knowledge regarding e-commerce

Finally, the study contributes to existing debate of e-commerce and use of ICT for development in LDCs by providing a distinct contribution of the SMEs that are owned or managed by women. This is particularly important because the literature on e-commerce in LDCs tend to be generalized while studies have shown that women in this context face a different set of challenges when conducting business (Miraz et al., 2016). Furthermore, it makes a great contribution to the scarce literature about e-commerce in Mozambique.

#### **6.4. Limitations and Future work**

Finally, a number of important limitations need to be considered. First, the major limitation of this study stem mainly from its investigation of small number of cases. Hence, raising concerns about the sample not being large enough to claim generalizability to the population from which the sample was taken (Baxter & Jack, 2008). However, findings of this kind of study are not intended to be generalizable in the statistical sense, but results can be generalizable into theory (Lee & Baskerville, 2012). In addition, case study method is prone to selection bias, in this study a purposive sampling was necessary to select SMEs that could provide useful information regarding e-commerce institutionalization. Therefore, further research making use of a more diverse sample could provide a better understanding of findings from this research.

Second, in this study, the SME and the women that own/manage the respective SMEs are analysed as an inseparable unit. Therefore, it is important to recognize that the owner/manager level of education, class, and prior e-commerce knowledge as influencers in the decision process for institutionalization. The effects of these factors have not been well examined, it would be interesting to further investigate these factors in future studies.

Third, findings revealed how for women-led SMEs e-commerce is conceptualized as a mix of website and extensive use of social media platforms/mobile phones. The manner in which women-led SMEs are prone to employ social commerce requires further investigation to understand how issues related with gender, the cultural context, how and different regions or countries impact this process.

Finally, in terms of concretely applying the contextual theory key components this research was limited by time constraints, the study adopted a cross-sectional research time frame. As such, there was a limitation on the inclusion of timelines, history, and the links between the change processes and outcomes for e-commerce in the SMEs. Future studies can consider adopting a longitudinal research time frame, this approach could be usefully to explore these factors and give a more in-depth understanding of the contextual factors shape the process of e-commerce institutionalization through time.

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## **APPENDIX A: RESEARCH INSTRUMENT**

### **SECTION 1: Demographics**

1. What is your position in the organization (business owner, business partner, business manager, or other)?
2. What type of business or type of sector your organization falls under?
3. How many employees your organization has?
4. How many years have you been operating?
5. How many years of experience do you have?
6. What is your current age?

### **SECTION 2: General questions covering background information, organizational, and leadership characteristics**

1. What is your background (both academic and experience)?
2. How did your background lead you to this position?
3. What is the background of your organization?
4. What are the products or services does your organization offer?
5. How did you learn about e-commerce?
6. Does e-commerce help your organization achieve business goals? If so, explain how.
7. What are the steps followed in your company in an e-commerce transaction? (Customer /supplier order)
8. Over time have there been changes on how e-commerce is being implemented in you organization? If so, how? If so, what was happening before the changes?
9. Can you detail the benefits/threats or potential benefits/threats that e-commerce has brought to your organization?

### **Section 3: Internal organizational contributors to the institutionalization of e-commerce**

#### **Commitment/Top management support**

1. How do you/your organization support implementation/institutionalization of e-commerce in your organization? ( Could be related to human resource, business resource or technological support)
2. Do you see your organization as a leader in e-commerce? (Comparing with similar organizations )
3. Do you take risk actions in processes related to e-commerce? If yes, what risks?
4. How do you communicate your vision of e-commerce activities throughout your organization?
5. Do you have interact with professional bodies about the current trends in e-commerce usage?

### **Resources**

1. Do you consider that your organization had the expertise to implement and now to maintain e-commerce?
2. Do you consider that the level of e-commerce within your organization is a result of the availability of human? Why?
3. Does your organization have the finance means to maintain e-commerce initiatives?
4. Does your organization feel any pressure to get latest e-commerce initiatives?
5. Do you perceive your organization have a culture of sharing information?
6. Is your organization well computerized with Internet, bandwidth and WLAN?
7. Are your other systems integrated with e-commerce?
8. Would you say the level of e-commerce adoption in this organization is a result of the available resource (human, finance, and technological)? If so, why? If not, why?

### **Governance**

1. Are roles, responsibilities and accountability clearly defined within e-commerce initiatives?
2. Do you analyse the possible changes that are caused by your organizations, suppliers, partners, and customers as a result of e-commerce institutionalization? If ye, how is this done.
3. Do you assess the impact of e-commerce institutionalization in your organization? If yes, how is this done?

### **Section 3: Internal organizational contributors to the institutionalization of e-commerce**

#### **Government e-readiness**

1. Is the legal environment conducive to conduct business on the Internet?
2. Are there effective laws to combat cybercrime, and protect consumer privacy?
3. Do you believe the government of Mozambique is committed to promoting e-commerce?
4. Do you know about any government initiatives to support e-commerce?

#### **Market Forces e-readiness**

1. Do you believe your customers and partners are ready to conduct business online? If yes what is their level of readiness?
2. How do your competitors and partners influence your decisions regarding e-commerce?
3. Would you say the level of e-commerce in this organization is result of market forces? If so, why? If not, why?

#### **Support industry e-readiness**

1. What do you think of the telecommunication infrastructure reliability and efficiency?
2. What do you think of the financial institution's capability of supporting e-commerce transactions?
3. Is there efficient and affordable support from the local IT industry to support your e-commerce processes?
4. Are secure electronic transactions (SET) and/or secure electronic commerce environment (SCCE) services easily available and affordable?
5. What support do you receive if support have you received, if any, from other local/international organizations to accomplish e-commerce initiatives in your organization? If yes, explain.

#### **Socio-cultural norms**

1. What are the socio-cultural challenges/benefits brought in by the local environment in the application of e-commerce in your organization? Explain

### **Section 4: Conclusion**

1. Is there anything you would like to add? Any questions?

## APPENDIX B: FACTORS INFLUENCING SMES E-COMMERCE INSTITUTIONALIZATION

Process		Content	Context			
Stage	Objective		Internal factors		External factors	
			Drivers	Barriers	Drivers	Barriers
<b>Getting online (use e-mail and basic access to information)</b>	To provide means of communication with its international suppliers and local clients.	E-mail; Internet for browsing and research;	Managerial educational background;  Managerial International experience;	Lack of availability of resources.	Large number of international suppliers	Gender stereotypes
<b>Web publishing (static website with basic info)</b>	To maintain an online presence for market purposes	E-mail ; static website; Mobile phone; blog ;	Top management support and commitment;		Pressure from competitors;	Lack of functional e-commerce legislation;
<b>Transacting online (complete transactions online)</b>	To sell products and services online	E-mail; Mobile phone; Transitive website ; Blog; Social Media	Available in-house ICT expertise;			Economic recession;  High costs associated with maintenance of the systems;  Consumer's lack of readiness for full online transactions.

**Table 7 Factors influencing e-commerce in SME\_A**

Process		Content	Context			
Stage	Objective		Internal factors		External factors	
			Driver	Barriers	Driver	Barriers
<b>Getting online (use of social media networks)</b>	To provide means of communication with its international suppliers and local clients.	E-mail; Social media;	Owner educational background;  International experience;	Lack of financial resources;	A large number of international suppliers;  International consumers;	The high cost of local webhost;  Lack of local experts in website development;

<b>Transacting online (complete transactions online)</b>	To maintain an online presence with market and transaction purposes	E-mail ; Transactional website; Blog ; Social media;	Top management support and commitment;		Perceived competitive pressure;  Social networks;	Costumers lack readiness for full online transactions;  Country economic crisis;  Lack of functional legislation;
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**Table 8 Factors influencing e-commerce in SME\_B**

Process		Content	Context			
Stage	Objective		Internal factors		External factors	
			Driver	Barriers	Driver	Barriers
<b>Transacting online (complete transactions online)</b>	To maintain an online presence with market and transaction purposes	Transactional website;  Social media (Facebook)  Mobile phone;  E-mail;	Managers educational background;  Managers International experience;  Manager enthusiasm and perception of e-commerce.	Lack of funding;  Lack of local ICT skills;	Word-of-mouth marketing;  Interaction with international peer organizations;	Consumer preference for traditional methods of shopping;  Lack of infrastructure of (logistics)  The slow speed of internet;  The country economic recession affected sales and development;

**Table 9 Factors influencing e-commerce in SME\_C**

Process		Content	Context			
Stage	Objective		Internal factors		External factors	
			Drivers	Barriers	Drivers	Barriers
<b>Getting online (use e-mail and basic access to information)</b>	To communicate with local and international stakeholders	E-mail;  Skype  Mobile phone;	Managerial enthusiasm and International experience;	The complexity of the technology;  Lack of ICT skill and expertise.	International clients;	Gender stereotypes;  Lack of funding;
<b>Web publishing (static website with basic info)</b>	To maintain an online presence for market purposes	E-mail ;  Static website;	Availability of resources;	The nature of and characteristics	Support from local industry;	Traditional business practices;

		Skype Facebook	Top management support and commitment;	of the business;		Economic recession;
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**Table 10 Factors influencing e-commerce in SME\_D**

Process		Content	Context			
Stage	Objective		Internal factors		External factors	
			Drivers	Barriers	Drivers	Barriers
<b>Getting online (use e-mail and basic access to information)</b>	To communicate and interact with customers;	E-mail; Internet for browsing and searching; Mobile phone	Awareness ; Available human resources;	Complexity of technology;	Imposition by business partners (consumers);	Transportation infrastructure;
<b>Web publishing (static website with basic info)</b>	To maintain an online presence for market purposes	E-mail ; static website; Mobile phone; Facebook; WhatsApp	Perceived benefits of using e-commerce.  ICT skill and expertise availability		Pressure from competitors;  Influence of consumers.	Resistance from suppliers.  Lack of payment facilities;  Economic Instability;

**Table 11 Factors influencing e-commerce in SME\_E**

Process		Content	Context			
Stage	Objective		Internal factors		External factors	
			Driver	Barriers	Driver	Barriers
<b>Getting online (use of social media networks)</b>	For marketing and provide means of communication with customers.	E-mail; Social networks;	Owner awareness;  International experience;		International consumers;  Use of social networks;	Lack of local experts in website development;
<b>Transacting online (complete transactions online)</b>	To maintain an online presence with market and transaction purposes	E-mail ; Transactional website; Social media;		Lack of top management commitment;  Lack of ICT expertise;	Customer trust;	Costumers lack readiness for full online transactions;  Country economic crisis;

**Table 12 Factors influencing e-commerce in SME\_F**

