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Clustered e-commerce platforms and the location choice of Home-Based Businesses in South Africa.

A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in Entrepreneurship and New Venture Creation

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Abstract

E-Commerce in South Africa was estimated to be worth US$3bn in nett sales during 2019 and is expected to grow at 13% on average up to 2024 (Deloitte, 2021). This growth is largely driven by marketplace e-commerce platforms eg., Takealot™. Marketplace e-commerce platforms provide a cluster environment for third-party sellers to trade their products and services on their platforms.

Home-based businesses are also showing a growth pattern. Access to the internet and other technology has better enabled the home to have access to marketplace e-commerce platforms which is sometimes referred to as clustered e-commerce. The study shows why it is justifiable to call marketplace e-commerce, clustered e-commerce by demonstrating that it has all the elements of a cluster.

The study mainly focused on the impact clustered e-commerce has on the location choice of home-based businesses in South Africa. The study assessed the common elements that make clustered e-commerce a preferred location choice for home-based businesses in South Africa. The study measured how clustered e-commerce in South Africa has influenced levels of trust amongst home-based businesses as well as understanding the economic factors that play a role in the location choice decision.

Results show that levels of trust and marketplace e-commerce elements have a significant influence on the location choice of home-based businesses. Economic factors did not seem to have a significant impact on the location choice of home-based businesses that trade on marketplace e-commerce.

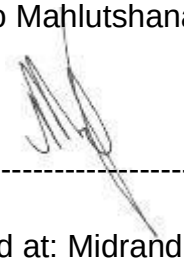
The study recommends that the research be replicated with a larger sample. Marketplace e-commerce platforms need to comply with the legislation compelling them to make the full details of the seller visible. This would make the population visible in order to sample.

Key words: marketplace e-commerce, clustered e-commerce, location choice, home-based businesses

Declaration

I, Ngqiqo Mahlutshana, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the Field of Entrepreneurship at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Ngqiqo Mahlutshana



Signed at: Midrand on the 28th day of February 2022

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- Madoda
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CHAPTER 1- INTRODUCTION

This chapter outlines the purpose of this research. It also gives detail to the reader about the topic. The purpose of this study is discussed, followed by the context of the study, problem statement and research objectives. While making clear what the research objectives are, the research question is also elaborated on. The study further discusses the key theories influencing the research and states which theory it follows. The significance of the study is stated, followed by the definition of key terms and assumptions.

1.1 Purpose of Study

The purpose of the study was to investigate the impact that clustered e-commerce has on the location choice of home-based businesses in South Africa. The study assesses which functions of clustered e-commerce are most likely to influence the location decision of home-based businesses.

1.2 Context of the study

E-Commerce in South Africa was estimated to be worth US$3bn in nett sales during 2019 and is expected to grow at 13% on average up to 2024 (Deloitte, 2021). In 2020, the Nielsen Global syndicated report found that 30% of surveyed shoppers claimed to be new to e-commerce (The Nielsen Company, 2020). While shopper growth in e-commerce is closely monitored, it is difficult to track e-commerce adoption in South African businesses and thus it is even harder to obtain data on the factors that influence businesses to adopt e-commerce (de Klerk & Kroon, 2005). There has been little dedicated research conducted on home-based businesses internationally.

Clustered e-commerce provides a route to market for smaller businesses including home-based businesses (Goga et al., 2019). Studies show that e-commerce provides a lower transaction cost for small businesses compared to traditional retail (Olusegun, Akpoviroro, & Adebowale, 2019). Clustered e-commerce, which is conventionally

known as marketplace e-commerce, is the most popular form of e-commerce in South Africa. The highest-ranked clustered e-commerce domains in South Africa are, Takealot.com (9.8m visitors), gumtree.co.za (7.7m visitors), amazon.com (3.5m visitors), Makro.co.za and olx.co.za (Similarweb, 2021). All these e-commerce platforms allow home-based businesses and other businesses to sell on their platform.

Traditionally, Makro has been in the physical retail space, however, in 2014, Makro saw the opportunity to get into e-commerce. The Makro e-commerce sales commenced in 2016 (Statista GmBh, 2021). Between 2019 and 2020, the Makro e-commerce platform experienced year-on-year growth (Statista GmBh, 2021).

As per the data that has been presented above, Takealot is the market leader within e-commerce and the marketplace (clustered e-commerce) environment. The e-commerce platform was officially launched in June 2011 after the acquisition of Take2 by Tiger Global Management and Kim Reid in 2010 (Takealot Online (Pty) Ltd, 2021). Takealot has become a route-to-market platform for many businesses, including home-based businesses as it allows both individual businesses and companies to list their products and trade through the platform (subject to approval).

Takealot.com group revenue grew by 23% in 2020, this was driven by marketplace e-commerce (clustered e-commerce) which grew by 77% Year-on-Year (Naspers, 2021)**.** Market place e-commerce is the area of business that home-based businesses trade their products through. For now, there is no public data that categorises business type contribution to performance. The Takealot.com marketplace is a route-to-market platform for any business that wants to digitally enable itself and thus it has become an easy-to-go market channel for businesses (Naspers, 2021).

Bidorbuy is an e-commerce marketplace that is also founded on the principle of a cluster for both buyers and traders (Bidorbuy, 2021). Initially, Bidorbuy was an auction site, which then evolved into a classified marketplace, and now in 2021, BidorBuy can be defined as an auction site and marketplace e-commerce (Bidorbuy, 2021). From July 2020 to September 2020, Bidorbuy had 1.7million monthly visits with a visit duration of 07:40 minutes (Similarweb, 2021).

Marketplace e-commerce (clustered e-commerce) is popular amongst merchants and shoppers, in 2017 sales on Amazon reached $3.03 billion and in 2020, Amazon's revenue was 386.064B (Macrotrends LLC, 2021). Amazon has been in South Africa

since 2004 and in 2020, the clustered e-commerce platform announced that it would set up its regional headquarters in Cape Town, South Africa (Amazon Web Services, 2021).

The growth of marketplace e-commerce platforms is well documented. The type of businesses that trade on these platforms are visible only by brand and name, but one cannot gather from face value where they are based. Both home-based businesses and e-commerce in South Africa are growing. Home-based businesses are becoming prevalent in South Africa, with more than 1,8 million people running these businesses (Ehlers, 2000). In other countries, home-based businesses are well documented, in the United Kingdom, home based businesses account for 59% of businesses and in the United States, they account for 52% of all businesses (Reuschke & Mason, 2020). Since the beginning of the 21st century, the home has become a place of economic activity and a place for business start-ups (Wynarczyk & Graham, 2013).

1.3 Theory Section

The location choice is a decision that has an impact on the growth trajectory of the firm (Dubé et al., 2016). Entrepreneurs may choose to set up businesses in their homes. This location decision leads to the business being classified as a home-based business. Home-based businesses (HBB) are businesses that use the residential property as an alternative to a commercial location to carry out business (Wynarczyk & Graham, 2013). Home-based businesses represent a change in the concept of a workspace (Wynarczyk & Graham, 2013). This business model addresses directly the strategy adopted by the business.

Two traditions have always influenced the location of the firm, one is based on the conception that new firm formation is a circumstance-dependent, social, and economic process (Reynolds, 1991). The other tradition is influenced by the neoclassical economic conception that firms choose the location based on cost minimisation, taking the distance transaction costs (McCann, 1995). These two traditional theories do not acknowledge that business location can be influenced by technology and telecommunications.

Though a firm could be a HBB, the choice to operate on an e-commerce platform can also be explained through the Cluster Theory. Platforms, such as Takealot and Amazon offer the HBB an opportunity to organise and trade within a cluster.

Being a part of this cluster is also influenced by the location decision of the firm. Entrepreneurs are not just part of physical clusters, such as shopping centres and malls, but placing their enterprises on e-commerce platforms continues to place them within clusters. Clusters are a common feature of today's economy (Kuah, 2002). The research assesses the marketplace e-commerce (clustered e-commerce) factors that influence HBB location choice.

1.3.1. Location Theory

Traditionally, the location decision of firms has been a concern within the space of economic geography (Dubé et al., 2016). This is because traditionally the location theory has been concerned with distance, space, and time (Jordaan et al., 2004). The theory emphasises the role of distance, economies, and clustering in the location of firms (Dubé et al., 2016).

Mccann and Sheppard (2003) argue that the format of the location theory has changed, based on new developments. Though the theory is evolving, it is still concerned with economic factors such as spatial transaction costs, modern clustering, and/or agglomeration (Mccann & Sheppard, 2003).

The renewal of the attention on location theory has been a concern across various disciplines, including management science, economics, geography, and international business (Mccann & Sheppard, 2003).

The location theory is about the choice concerning where to put productive factors and in the case of this study, it would concern the choice made by an entrepreneur on trade location and productive location. The location theory acknowledges that interregional trade flows are a result of the location choice (Krugman, 1993). Within the retail space, the location theory is concerned with the retailer's market boundaries, identifying suitable locations aligned to business strategies (Wang et al., 2016). This

view summarises the evaluation expressed by Brauers (2018). The location theory consists of a supply side and a demand side (Brauers, 2018).

The supply side is concerned with the location possibilities that are available to the entrepreneur for production and distribution (Brauers, 2018). The demand side, on the other hand, is characterised by several objectives or criteria (Brauers, 2018). These include (not limited to) finding a location for a specific project (Brauers, 2018).

Isard (1956) was one of the first early writers on Location Theory. He introduced empirical results which showed that the distance factor is at the heart of the location decision (Isard, 1956). Previously, the Location Theory was applied to a physical location. In the analysis of the location theory, Jordaan et al. (2004) look at how proximity to convenience and markets influences location choice. The influence of technology on location choice is explored by Wheeler et al. (2000) who acknowledge that telecommunications technology has changed the social structure of individual lives. Telecommunication technology has created the death of distance and the predominance of social spaces (Wheeler et al., 2000).

The location theory affirms the fact that the decision to choose one trading location over another is influenced by profitability. Decision-makers consider trading locations based on the expected profits (Rahman & Kabir, 2019).

The Weberian approach to location theory involves three stages, finding a point of minimum transportation cost, assessing other lost locations, and an analysis of agglomeration (assessing advantages and disadvantages) (Bater & Walker, 1970). In the case of e-commerce, one can say that the transport costs are also reduced by the use of courier services or transport logistics associated with the e-commerce firm.

1.3.2. Cluster Theory

There are many ways of accessing profitability. Operating within a cluster is a choice that is made by many firms. Werber speaks of the need for firms to establish linkages, this need also influences the decisions of firms. The next section of the paper goes into detail on the Cluster Theory and why firms would choose a location that makes them fall within a cluster. The choice to choose a location within a cluster has, in the past. led to the formation of industries with firms migrating from operating as individual firms to forming industries (Rahman & Kabir, 2019).

Porter (1998b) defines a business cluster as a concentration of organised businesses, suppliers and firms. Core to Porter's definition of a cluster is that clusters must have interconnectedness (O'Dwyer et al., 2015). Though Porter, who is the father of the Cluster Theory, confined clusters to geographic locations, the cluster concept has expanded over time (Manzini & Di Serio, 2017). Through technology and globalisation, the notion of a cluster has assumed global dimensions (Lazzeretti et al., 2012).

In assessing the lifecycle of the cluster, Swann et al. (1998) described three stages of a cluster's lifecycle; critical mass stage (new entries start to increase the growth of the cluster), the plateaus stage which occurs at peak entry, this is followed by a saturation point where the cluster stops growing (Swann et al., 1998). Dwyer et al. (2015) state that clusters have to have common aspects or complementary aspects. There must be links in a cluster which are either vertical (buyer and seller relationships) or horizontal (complimentary products or services).

The cluster environment supports the identity of new businesses, it also provides lower barriers to entry. Highly dense clusters provide a sanctuary for new start-ups (Cooper & Folta, 2000). Clusters give entrepreneurs and firms a sense of identity (Cooper & Folta, 2000). Clusters theory is built on the assumption that clusters provide a competitive advantage to a firm as they provide interconnectedness.

The model (Figure 1.1) from Porter describes the advantages and disadvantages that come with a cluster. This model is based on the Cluster Theory.

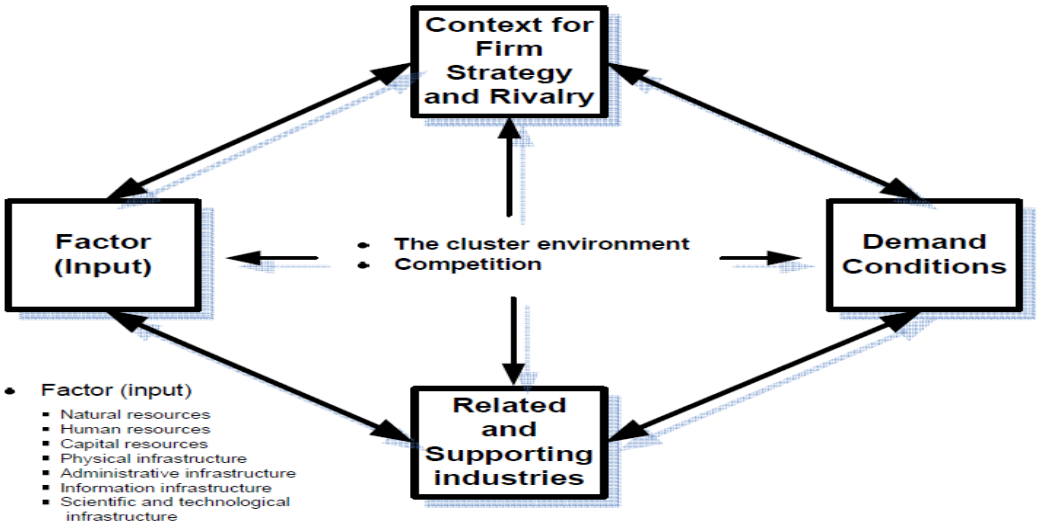


Figure 1.1: Cluster Advantages and Disadvantages (Porter, 2000)

In the above figure, Porter shows that the cluster provides a competitive advantage. Within the entrepreneurship content, clusters have affected competition and have created competitive advantages. Porter (1998c) believes that clusters help increase the productivity of companies based in the cluster, they drive the pace of innovation and stimulate the formation of new businesses (Porter , 1998a). In the diamond, Porter identifies four components of the cluster which are, influence conditions, need conditions, related and endorsed industries, plus firm strategy, structure and competition (Porter, 2000).

Factor conditions are about the inputs that come with the cluster, in the case of e-commerce clusters, these normally come with human resources, physical infrastructure and technology (Porter, 2000). This can be seen in the case of Takealot in South Africa.

How the cluster positions itself in the market creates demand conditions. A cluster that operates across borders will have a different set of demand conditions compared to a cluster that only operates within the borders of a nation. If an e-commerce cluster operates in a global environment, it will create global demand for the products and services of the individuals within that cluster (Kuah, 2002).

Normally, established clusters have well-entrenched strategies and structures, however, individual firms within the cluster have to also determine their own trading strategy within the cluster. The entrepreneur and management within the firm have to ensure that they make decisions that allow them to effectively gain from the position of the cluster while also competing within the cluster (Deloitte, 2021) The increase in e-commerce clusters creates an opportunity for entrepreneurs to position themselves to compete within established clusters.

E-commerce clusters provide various types of support, which have already been mentioned under factor inputs. These factor inputs are available to all members of the cluster (Porter, 2000). It then comes down to how each member of the cluster utilises these inputs to gain a unique competitive advantage within the cluster. While competing within the cluster, all players within the cluster should be driven by the agenda to improve the overall cluster (Porter, 2000).

1.3.3. Theory Choice

The theoretical aspect of the study has been informed by the objectives of the study. The study aims to create an understanding of the marketplace e-commerce elements that potentially play in the location choice of home-based businesses. Secondly, the study creates an understanding of the fact that though home-based businesses operate within the individual residential home and away from the physical clusters that are provided by shopping centres, and business parks, these firms are still operating within clusters on the internet.

With the location theory, the study wants to understand what the benefits are of choosing e-commerce as a trading location. What are the advantages of trading on e-commerce platforms? The understanding of the location theory comes with getting full insight into what considerations are made by firms when choosing a location.

There is an interconnection between the cluster theory and the location theory. It is important to understand what informs home-based businesses to continue to seek to operate within clusters on virtual platforms.

Both theories are best suited to explain the motivating factors for firms to migrate to home-based businesses while adopting e-commerce as an alternative method of accessing the market. Going back to the work of Michael Porter for the description of the cluster allows the study to fully understand the theory and to draw a proper analysis of how this theory still applies to marketplace e-commerce.

The cluster theory does not only limit itself to what a cluster is, but draws focus on how clusters emerge, what influences the emergence of clusters and how clusters are sustained. Once firms have decided to join a cluster, what is the expected behaviour and how do they relate to other members of the cluster?

Both theories focus on the macro and do not focus on individual entrepreneur decisions. The study is focused on the decision of the firm, and therefore entrepreneur decision theories do not apply to this study. The objective is to use the location theory and the cluster theory within the firm perspective. This is because the study focuses on business-to-consumer firms and transactions.

1.4 Problem Statement

E-commerce research usually focuses on the consumer, factors that impact on adoption and barriers (Gelderen et al., 2008). E-commerce has changed the face of retail in South Africa, increasing prospects for companies and businesses to reach a wider range of customers (Goga et al., 2019). Shopping centres provided physical clusters for businesses, however as many businesses begin to operate from residential properties, the growth in clustered e-commerce depicts a shift from physical clusters to online clusters.

Factors that influence South African home-based businesses to consider the growing clustered e-commerce as a location choice are not well documented. According to Porter (2000), the cluster concept has focused on geographic concentration and interconnected companies. This interconnectedness is shifting from physical clusters to virtual platforms. Both on physical locations and virtual platforms, clusters provide a supportive environment for entrepreneurs (Porter, 1998b). Marketplace e-commerce relies on clustering to direct and drive sales (Wątróbski & Małecki, 2017). Clustering

is at the core of marketplace e-commerce, but it is not commonly called clustered e-commerce.

Research on clustering in e-commerce focuses on the process applied to create clusters and classification of goods and services (James, 2021). As businesses begin to migrate from physical clusters to virtual clusters, little is known about the impact of that change on the HBB.

Prior research on clusters shows that firms can gain an advantage by being a part of a cluster. However, little is known about the advantage that home-based businesses gain when they adopt clustered e-commerce as a business operating model. Performance is key in the assessment of a firm's operations (Olusegun et al., 2019).

Home-based businesses are classified under Small, Medium Enterprises in South Africa (Bureau for Economic Research, 2016). A failure to understand the shift from physical clusters to virtual clusters creates the following problem: a failure to have a clear measurable understanding of the impact of marketplace e-commerce on home-based business location choice.

It is important to conduct this research because both the state and the private sector (including marketplace e-commerce platforms) need to understand how to position and present clustered e-commerce platforms as a location choice.

Firm location choice is affected by many factors (Chin, 2020). The study can be a reference point for both firms and researchers who seek to understand the elements and factors of clustered e-commerce which influence the location choice of home-based businesses.

1.5 Research Objectives

The impact of clustered e-commerce on the location choice of home-based businesses in South Africa:

1) Assess the common elements that make clustered e-commerce a location choice for home-based businesses in South Africa.

2) Measure how clustered e-commerce in South Africa has influenced levels of trust amongst home-based businesses.

3) Identify economic factors that influence the decision to choose clustered e-commerce as a location choice.

1.6 Research Questions

To achieve the study objectives, the following questions are answered in the study.

1) Which of the clustered e-commerce elements are most likely to influence the location choice for home-based businesses in South Africa?

2) How clustered e-commerce in South Africa influence the levels of trust amongst home-based businesses in South Africa?

3) Which economic factors are most relevant in the decision to choose clustered e-commerce as a location choice?

1.7 Significance of the study

Both developing and modern economies have a large pool of Small, Medium Enterprises and many of those firms are home-based businesses (Kapasi & Galloway, 2018). These home-based businesses all have different business models based on infrastructure and availability of resources by area and country. Information and Communication (ICT) growth in South Africa has allowed for the re-integration of the home and business (Sayers, 2010). This new way of working creates an impression of a fragmented economy. This study shows that what might seem fragmented is clustered in another format. Home-based businesses are hidden in nature, and this makes co-ordinated research difficult (Sayers, 2010).

The study further contributes to the Cluster Theory by showing that marketplace e-commerce has all the characteristics of a cluster. Traditionally, clusters have been found in the form of shopping centres, the old traditional village square, the mall, but recently, clusters are found in the form of e-commerce marketplaces. The new form of clusters makes geographical clustering less important as businesses can form clusters on virtual platforms (Taher, 2021).

The study contributes to the Location Theory by assessing the impact that e-commerce has on the activities and structures of businesses that are home-based. The growth of e-commerce is well documented in South Africa, however, the impact that it has on home-based businesses is not separated from the general research that has been done on Small Medium Enterprises (Molapo, 2014).

These virtual platforms that are provided by the internet have meant that clusters can exist across national borders and are not limited to industrial classifications (Molapo, 2014). Home-based businesses are establishing themselves in these clusters. The size of the business or structure is not visible on the e-commerce platform, it is the reputation of the cluster that drive business growth and attracts clientele (Taher, 2021).

In the study by Molapo (2014), it is acknowledged in the concluding remarks that there is a little comprehension on the benefits of using e-commerce amongst small, medium enterprises in South Africa. Digital trading platforms are important to the growth and survival of small businesses (Molapo, 2014). This study expands this area by

assessing the impact that e-commerce has had on home-based businesses in their location choice within the South Africa context.

1.8 Delimitations of the study

The study pays attention to South African home-based businesses that trade on clustered e-commerce platforms. Businesses that have physical walk-in outlets are excluded from the study. Clustered e-commerce platforms are commonly known as marketplace e-commerce (Ciguene & Marron, 2021). This means that home-based businesses that are exclusively trading on an individual e-commerce platform are excluded. Individual e-commerce platforms are those that exclusively trade only the individual business's products and services (Gelderen et al., 2008). The study is limited to home-based businesses that trade in physical products and excludes businesses that are trading services.

1.9 Definition of Key Constructs

The key constructs used in this study are home-based business, clustered e-commerce, consumer goods, Internet, technopreneurship and business-to-consumer.

1.9.1 Home-based businesses

Home-based businesses (HBB) are businesses that use residential property as an alternative to a commercial location to conduct business (Wynarczyk & Graham, 2013). These businesses are often considered to be formal amongst the informal businesses (Donaldson & Smit, 2011). A HBB denotes rewarded work conducted from a place of residence, this is a house that also serves as a residence (Donaldson & Smit, 2011).

1.9.2 Clustered E-Commerce

The typology of online shops that resemble department stores or shopping centres on a virtual platform. Clustering involves a set of rules that group individual objects, phenomena, according to a certain profile or type (Małecki & Wątróbski, 2017). Clustered e-commerce has not been widely researched and defined in academic research. Clusters are a concentration of firms that can produce synergy because of their interdependence (Kuah, 2002). A cluster is a form of network that occurs within a location where there is a commonality amongst firms and businesses that increase the impact and frequency of communication (Porter, 1998b). Clustered e-commerce is an online marketplace where products or service information is provided by multiple third parties, but the transactions are processed by the marketplace operator (Smart Women, 2017).

1.9.3 Consumer Goods

Consumer goods are generally any product or service that is purchased mainly for personal or household use (Kolb, 2018). Consumer goods are classified in different ways based on frequency and duration of use (Kolb, 2018). It is easy to group consumer goods into three categories, durable goods, semi-durable goods, and non-durable goods, this is because many of the purchases people make are based on habitual or routine choices (Stankevich, 2017).

1.9.4 Internet

The internet is a web of computer networks, linked together primarily by lines through which data can be carried in seconds around the world (Venter, 2015). The internet is key to e-commerce as it allows companies to offer their services and products in different locations without having to set up a sales service in each of those locations (Venter, 2015).

1.9.5 Technopreneurship

Technopreneurship is defined as the creation and securing of economic value by exploiting new technology-based innovations (Venter, 2015). Technopreneurship means technology entrepreneurs who can either be big, small, or medium enterprises (Polytechnic, 2017). It is about businesses that combine entrepreneurship and technology.

1.9.6 Businessto-Consumer

Business-to-Consumer refers to all transactions between a business and an end user (Venter, 2015). The transaction is not limited only to goods, it also applies to services rendered to an end-user (Drigas & Leliopoulos, 2013). Business-to-consumer e-commerce is about using the internet as a retail market channel to reach the end consumer (Drigas & Leliopoulos, 2013).

1.10 Report Structure

The context of this study was discussed in chapter one, this is followed by chapter two which is the literature review for home-based businesses in South Africa, HBB location choice, marketplace e-commerce vis-à-vis home-based businesses and marketplace (clustered) e-commerce.

The study's conceptual framework is discussed in chapter two.

Chapter three discusses the research methodology approach, the details are provided for the research population, sampling, instrument, and data collection, including the process on validity and reliability.

The results are exhibited in chapter four and further detail regarding the results is provided in chapter five.

The last chapter, which is chapter six, discusses the study's conclusions and implications of the findings.

CHAPTER 2-LITERATURE REVIEW

2.1. Introduction

As mentioned in chapter one, the main objective of this study was to assess the impact that clustered e-commerce has on the location choice of home-based businesses in South Africa. The conceptual framework for this research examines the impact that clustered e-commerce has had on the overall structure of the HBB. The chapter reviews the literature on clustered e-commerce and home-based businesses. More importantly, this chapter provides a critical analysis of the current literature. Peer-reviewed journal articles and previous empirical studies provide secondary sources of information for illuminating the current body of knowledge. The discussion emerging from this chapter enables the researcher to explore relevant theories and empirical findings which are used to identify and develop the hypothesis for the current study.

The chapter is structured and presented according to the following logical and systematic outline. Firstly, the chapter provides an overview of home-based businesses in South Africa. This is followed by a discussion on the characteristics of home-based businesses. Additionally, the concept of clustered e-commerce is explored, and the discussion specifically focuses on marketplace e-commerce in South Africa. Further, HBB location choice is discussed. Location aspects discussed include community fit in business location choice and economic considerations in business location choice. Lastly, the study's conceptual framework is discussed.

2.2. Home-Based Businesses in South Africa

Home-based businesses (HBBs) are small businesses which add considerably to the economic growth of the local community and the country at large (Modarresi et al., 2016). A HBB is any business that uses a residential property instead of a commercial property as a base to conduct business (Newbery &Bosworth, 2010). Historically, home-businesses have been a common feature in townships with 33% of households in a township, such as Mamelodi, running one (Gough et al., 2003). Home-based businesses are very visible in South African townships. Almost 60% of informal businesses in South Africa are home-based businesses (Smit & Donaldson, 2011). This concept is not limited to middle- and upper-income communities, there is an estimated total of 355,00 home-based businesses in townships and inner cities in South Africa (Rust, 2007). Generally, in South Africa, home-based businesses are seen as a sub-group of the informal economy (Nkeiru, 2012). In a study conducted by Kruger et al. (2020) in South Africa, it was found that 25% of businesses were primarily home-based businesses. This pattern was observed to be stemming from a cost reduction mindset (Kruger et al., 2020).

Home-based businesses are not a recent concept, business and residence were once closely linked (Kane & Clark, 2019). Homes have been used as places to create product. These businesses are equally split between traditional businesses and knowledge intensive businesses (Kane & Clark, 2019). Those engaged in digital entrepreneurship while operating from a HBB are most likely to have post matriculation education (Reuschke & Mason, 2020). The growth of technology and the shift towards e-commerce has provided for the growth of home-based businesses (Chin, 2020).

Research on home-based businesses has suggested that home-based businesses provide a low-cost entry option for entrepreneurs to try out ideas (Gelderen et al., 2008). This research does not acknowledge that the business model might not be based on trying out the idea, but the idea is based on the home being a location choice for the business. According to Walker (2003), home-based businesses also mirror the aspirations and values created by larger businesses (Walker, 2003). Digital technology has transformed the characteristics of home-based businesses (Reuschke & Mason,

2020). Technology is transforming the processes and activities that occur in home-based businesses (Nambisan & Baron, 2021).

This idea that home-based businesses are a place for trying out new ideas has an impact on the credibility of the business. Businesses in sectors such as retail and hospitality tend to have a short life cycle, but due to their visibility, they are regarded as legitimate businesses (Walker, 2003). The HBB, at face value, seems small, but its choice to use the internet and e-commerce to access the market gives it scale and credibility (Sayers, 2010). Sayers (2010) argues that home-based businesses are an accepted part of the economic landscape and command credibility. The legitimacy discussion of home-based businesses began with Walker (2003) arguing that home-based businesses are real businesses that make a significant economic impact and social contribution (Walker, 2003). Digital technologies give home-based businesses access to established markets and help with enhancing the reputation of the HBB (Nambisan & Baron, 2021).

In South Africa, a high number of enterprises in the inner cities and townships are using their homes for business purposes (Gordon & Nell, 2006). In South Africa, about 60% of all informal businesses are home-based (Smit & Donaldson, 2011). Home-based businesses trade openly in the townships because most municipalities do not have the capacity to regulate (Smit & Donaldson, 2011).

In a study done by Smit and Donaldson (2011) in George, South Africa, on home-based businesses, it was found that 49% of home-based businesses were operated from former white group areas (suburbs), 23% were operated in townships and 28% were operated in former coloured group areas (Smit & Donaldson, 2011). The majority of the home-based businesses that were operated in townships focused on retail (Smit & Donaldson, 2011). The statistics of home-based businesses in South Africa are not well documented as these businesses are hidden in nature (Pierce-Lyons, 2009).

Table 2.1: Home-based business categories (Smit & Donaldson, 2011)

Location	Home-based business category						Total
	Retail	Services	Production	Services and retail	Production and services	Production and retail	
Former white-group areas	5%	23%	1%	11%	2%	7%	49%
Township	17%	0%	0%	0%	6%	0%	23%
Former coloured-group area	16%	11%	0%	0%	1%	0%	28%
Total	38%	34%	1%	11%	9%	7%	100%

n = 98 HBB respondents

The statistics shared in the above table confirm the fact that there is a higher prevalence of home-based businesses in suburbs compared to townships, but one would assume that this is a phenomenon that is prevalent to townships because, in that environment, they are highly visible (Gordon & Nell, 2006).

The home-business types range from retail-oriented home-based businesses to the service industry (Smit & Donaldson, 2011). The most common home-based businesses in South Africa include shebeens, hair salons and restaurants. These types of home-based businesses involve the customer visiting the place of business and interacting directly with the trader. Smit and Donaldson (2011) described the home as an casual business location. According to Smit and Donaldson (2011), the George Municipality in South Africa sees HBB as a type of business operating from a house that also serves as a place of residence (Donaldson & Smit, 2011). There are cases where the home is used to create products (food and clothes) that are sold in the home or on the street (Smit & Donaldson, 2011).

2.2.1 The impact of municipal land use policy on HBB

The current regulations governing land use in South Africa do not stimulate HBB development (Juries-Whiteman & Campbell, 2001). Despite this setback in regulation, there is a high prevalence of home-based businesses in South Africa (Juries-Whiteman & Campbell, 2001).

Land use is regulated under municipalities in South Africa (Republic of South Africa, 2013). Section B of the Constitution empowers local government to regulate trading and buildings (Smit & Donaldson, 2011). However, how municipalities govern land use differs by area. The regulations set by the City of Johannesburg, for example, state that not more than 25% of the built area of the residential dwelling may be used for non-residential purposes (City of Johannesburg, 2018). The Land Use Scheme from the City of Johannesburg has separated the areas that deal with spaza shops and shebeens and the area that deals with home enterprises for professions and occupation (City of Johannesburg, 2018). The regulations of the City of Johannesburg on home-based businesses limit the number of people who can be employed by the business to only two people, other than the members of the household (City of Johannesburg, 2018). City of Johannesburg land use scheme is an example of the regulations that are placed on the functionality of home-based businesses in South Africa.

In its town planning scheme, the City of Tshwane has a section regulating home-based businesses. These are defined as home enterprises under section 9 of the land use scheme. The City of Tshwane limits a home enterprise to a maximum of 30% of the floor space in the dwelling, and these enterprises can only employ a maximum of two people (City of Tshwane, 2008). The City of Tshwane Municipality defines a home enterprise which is deemed to be in a HBB as a practice of an activity, business, hobby, or occupation in a dwelling unit to generate an income (City of Tshwane, 2008).

A review and analysis of City of Johannesburg and City of Tshwane regulations on home-based businesses highlight the complexities prevalent in the regulations when it comes to home-based businesses in South Africa. By and large, the current regulations limit formal business rights on residential properties in South Africa (Peterson, 2016).

The City of Cape Town requires a property owner to apply for consent if the property will be used for any activity outside of what it has been zoned for (City of Cape Town, 2012). To operate a HBB, one has to apply for consent from the City of Cape Town Municipality (City of Cape Town, 2012). These regulations were developed pre-COVID 19. In 2021, the City of Cape Town acknowledged that many business owners were operating their businesses from home, however they were warned that they have to

familiarise themselves with the land uses and development rules (PropertyWheel_G, 2021).

It is believed that government compliance requirements cost home-based businesses billions of rands each year (Ehlers, 2000). A review of literature highlighted that running a HBB in South Africa is not simple. There are various zoning schemes with which a HBB entrepreneur has to comply. The municipal zoning schemes determine the type of business and the business activities that can be conducted in a specific area (Van Der Merwe, 2021). Therefore, due to the policy limitations, there is a need for responsible authorities to revisit the policy about home-based businesses in South Africa as it does not stimulate the establishment of home-based businesses (Juries-Whiteman & Campbell, 2001).

2.2.2 Nature and characteristic of Home-Based Businesses in the South African business landscape

There are two dimensions to the South African HBB environment, namely: the informal and the formal business environment. Home-based businesses are found in wealthy neighbourhoods (Kane & Clark, 2019). The internet infrastructure that is being implemented has provided business infrastructure in the home (Kane & Clark, 2019). It is challenging to locate home-based businesses in suburbs as they are sometimes unregistered and unlicenced (Sayers, 2010). Many factors contribute to the informal character of home-based businesses, and the legislative requirements and red tape are contributors (Mason et al., 2008).

Home-based businesses most visible in the townships are spaza shops. These home-based businesses account for 2.7% of the retail trade in South Africa (Ntema & Marais, 2014). These spazas use the home as a place to conduct business. A spaza shop is an informal convenience shop that operates from a place of residence, typically attached to the house (Petersen et al., 2019). The Nielsen Company (2016) revealed that there were 121 000 spaza shop stores in South Africa.

The informal food service has also become a critical player in home-based businesses in the township economy. These informal businesses are geared to serve the

immediate community and market (Petersen, 2020). In addition, these home-based businesses are usually reliant on immediate family for labour and are unregistered (Petersen & Charman, 2018). In terms of character and nature, the home-based businesses in South African townships are informal micro-enterprises that operate in a survivalist mode (Petersen & Charman, 2018). These home-based businesses are predominantly run by women with family members employed part-time (Petersen & Charman, 2018). The employment of family members is seen as a common strategy in home-based businesses (Petersen & Charman, 2018). Nkeiru (2012) had earlier pointed out that most home-based businesses in South Africa are run by women.

This trend can also be linked to findings made by Urban and Msimango-Galawe (2021), that women are still found to concentrate on activities that are in line with their roles in the domestic space. This is driven by the need to balance work and family roles (Urban & Msimango-Galawe, 2021).

In a study by Mathibela (2018), it was found that home-based enterprises can be created because of a rental agreement. The owners of the home-based enterprise do not necessarily stay on the same property that the business operates from but sometimes they rent space on someone else's residential property (Mathibela, 2018). Nkeiru (2012) finds that this arrangement is a result of limited commercial space in the South African townships. The limited commercial space is a result of inherited spatial planning (Nkeiru, 2012).

Home-based businesses are not restricted to low-income groups or neighbourhoods (Nkeiru, 2012). The continued advancement in technology and connectivity has enabled many to run home-based businesses (Pramjeeth & Sapepa, 2013). Many HBBs are in the service industry and prefer to operate from home as they do not have customers visiting the business site (Pramjeeth & Sapepa, 2013).

2.3 Visible facets of Home-Based Businesses

Home-based businesses and non-home-based businesses have similar markets (Philips, 2002). There are three types of home-based businesses. These include those that trade on the internet, those that have customers visiting the home business and those that have the home as a base but conclude the transaction outside of the home (Kapasi & Galloway, 2018).

Clark and Douglas (2010) noted that there are two major types of home-based businesses. The first type includes sole traders or individual proprietorships with limited liability (Clark & Douglas, 2010). Partnerships, which are rare in home-based businesses are the second type (Clark & Douglas, 2010). Home-based businesses are most likely run by the owner (Kapasi & Galloway, 2018). Furthermore, they tend to be micro-businesses, employing fewer than 10 people (Naveed & Daniel, 2017). The business model is characterised by lower set-up costs (Naveed & Elizabeth, 2016). These businesses are small in terms of number of people employed, size and turnover (Mason et al., 2011). However, they generate substantial employment opportunities in some countries. Chen (2014) states that home-based businesses are the largest employer in some economies.

The most common facet of home-based businesses is that they use a residential property as a substitute for a commercial location (Wynarczyk & Graham, 2013). Kapasi and Galloway (2018) stated that a common element in home-based businesses is that the owner is embedded in the business. The business has no other headquarters or location (Mason et al., 2011). The most distinguishing feature of home-based businesses is that their location is in the home (Waiswa, 2020). To a large extent, the domestic space is a key resource to home-based businesses (Waiswa, 2020).

Thompson (2009) perceived home-based businesses as being characterised by start-up and nascent businesses. The businesses are a host to self-employed individuals (Mason & Reuschke, 2015). In the United Kingdom (UK), 56% of self-employed people operate home-based businesses (Mason et al., 2008). In Europe, 39% of self-employed women run home-based businesses and 87% of home-based businesses are operated by women (Rodrı´guez-Modron˜o, 2021). Therefore, the home is a very

important location for small businesses (Mason et al., 2008). Home-based businesses are characterised by being small in terms of employment and turnover (Reuschke & Domecka, 2018).

Around the world, the nature of products and services offered by home-based businesses is diverse. The services and products offered by home-based businesses include in-home hospitality, craft, food production and retailing (Wynarczyk & Graham, 2013). In the UK, most home-based businesses are well established commercial ventures (Mason & Reuschke, 2015). In Sub-Saharan Africa, home-based businesses are engaged in retail, services, manufacturing, and production activities (Waiswa, 2020).

Gelderen et al. (2008) used the acronym SMILES to define the facets of home-based entrepreneurs. SMILES represents, speed, multiple incomes, Inexpensive, lean and smart. Speed is seen as a key characteristic of home-based businesses because home-based businesses provide their services in a fast way (Gelderen et al., 2008) Technology use has further enabled these businesses to sharpen this characteristic (Gelderen et al., 2008). Speed allows the firm to operate optimally within its environment and conditions.

Multiple incomes as a characteristic of home-based businesses is based on the belief that home-based businesses are more likely to engage in multiple forms of income generation (Gelderen et al., 2008). The use of the internet has enabled HBB to have income from multiple channels (Reuschke & Mason, 2020). Digital technology has enabled home-based businesses to overcome market access constraints. This has further enabled firms to generate multiple incomes. HBB owners tend to work part-time on their HBB while running another business or working as an employee for another organisation (Clark & Douglas, 2010). As mentioned by Gelderen (2008), home-based businesses are inexpensive to set up and operate. There is an economic concern regarding who produces what and where (Krugman, 1993).

Another characteristic of home-based businesses is that they are lean and smart (Gelderen et al., 2008). Clark and Douglas (2010) found in their study that 51% of home-based businesses in New Zealand had one full-time employee, 11% had two full-time employees (Clark & Douglas, 2010). In a study conducted in the USA in 1996, home-based businesses employed more than 3.5 million people (Philips, 2002). Kane

and Clark (2019), also agree with the fact that home-based businesses do not prevent employment creation and growth (Kane & Clark, 2019). In 2014, home based businesses in the USA had overall employment growth of 24% (Kane & Clark, 2019). In another related study conducted in George, South Africa, it was found that generally home-based businesses do not employ more than five people per business (Smit & Donaldson, 2011).

2.4 Home-Based Business location decision

The decision to locate a business from a residential property is an economic decision and a location decision founded in economics. The location theory understands that firm growth depends on the link between mobile and immobile factors (Krugman, 1993) The concept of space influences location and location decisions are usually based on the return on investment that a specific space will give (Krugman, 1993). This is the case because firms seek to maximise profits or minimise costs, and this influences the location choice of the firm (Dubé et al., 2016).

The decision to operate a HBB can be based on a variety of reasons, including cost-minimisation, the type of business, and access to alternative trading platforms, such as e-commerce (Kapasi & Galloway, 2018). Philips (2002) believes that people start home-based businesses for two major reasons; to earn a primary income or to earn a supplementary income (Philips, 2002). Reuschke and Mason (2020) characterise home-based businesses as businesses that offer cost minimisation, tend to be smaller in terms of employment size and revenue.

2.5 Marketplace E-commerce vis-à-vis Home-Based Businesses

E-Commerce as a go-to market platform has helped transform the entrepreneurial process and activity (Reuschke & Mason, 2020). Technology has helped reduce the number of hands required in the business process (Olusegun et al., 2019). It allows for one to achieve business performance objectives using fewer human resources by leveraging technology capabilities (Olusegun et al., 2019). E-commerce allows the organisation to reach more customers while remaining lean. The size of a business is

usually reported based on employment levels and/or turnover (Clark & Douglas, 2010). The use of e-commerce defies this view as a business can employ fewer people while growing its turnover (Philips, 2002). In the study by Reuschke and Mason (2020), it is found that only a minority of home-based businesses use online platforms for sales.

There is no official or academic term for clustered e-commerce. Marketplace e-commerce follows the tradition of a traditional physical market that is constituted in the form of a cluster. Historically, clusters were a phenomenon that came with the industrial revolution which can be seen in the emergence of the textile industry in Italy, the shipbuilding industry in Glasgow and the car manufacturing industry in Detroit (Kuah, 2002). The cluster approach has historically focused on geographical concentrations of firms in related industries, fields that compete and complement one another. In essence, clustering has been about co-operation (Stam & Spigel, 2016).

The competitive dynamics in e-commerce are the same as those in traditional retail markets (Goga et al., 2019). Today, technology and e-commerce has set a new method of how companies compete with one another (Haryanti & Subriadi, 2020). Algorithms are applied on platforms, such as Amazon, to create clustering. All marketplace e-commerce platforms are based on clustering; this allows for the product to be placed in the most appropriate category (Ciguene & Marron, 2021). Clustering on e-commerce is used to group objects based on their similarity (Ciguene & Marron, 2021). This has an impact on the sale of goods as they depend on the categorisation of products (Malagueño et al., 2018). On marketplace e-commerce, clustering is used to categorise customers and suppliers based on large sets of data (Ciguene & Marron, 2021).

According to Kapasi and Galloway (2018), a firm's business model will influence its sustainability and competitive advantage. Pitelis (2009) believes that innovation may drive new business models. The emergence of technology and e-commerce has allowed home-based businesses to reach a wider market (Nathan et al., 2019). Technology has allowed people to set up businesses from home (Nathan et al., 2019). This means that in certain sectors, technology is a key characteristic of home-based businesses. Marketplace e-commerce has become a key characteristic of home-based businesses that trade online (Reuschke & Mason, 2020). Marketplace e-commerce is key to the growth of home-based businesses (Leong et al., 2020).

There are home-based businesses that have been created purely to operate on digital platforms (Reuschke et al., 2022). This digital technology has also been able to change the characteristic of home-based businesses in rural areas of China (Reuschke et al., 2022). As a characteristic of home-based businesses, digital technology comes in three distinct forms, namely, digital artefacts, digital platforms and digital infrastructure (Nambisan, 2017). Online communities and marketplaces are placed under the category of digital infrastructure (Nambisan, 2017). Digital infrastructure offers communication, collaboration, and computing capabilities (Nambisan, 2017).

2.6 Clustered E-Commerce

Clustering requires a set of rules that make it possible to group individuals, objects, and phenomena (Wątróbski & Małecki, 2017). In e-commerce, clustering is key to matching products to specific customer needs. Clustering is applied to ensure that information is placed in marketplace e-commerce, based on the shopper's behaviour (Wątróbski & Małecki, 2017). Clustering in e-commerce is a process of forming clusters of similar things. It is a process of unsupervised classification (James , 2021). Clustering is reliant on data. Data is key to e-commerce and can be used to enhance the e-commerce offering (Goga et al., 2019).

Clustered e-commerce is focused on creating a sectoral focus of firms which produce and/or sell a range of complementary goods and services (Foghani et al., 2017). Marketplace e-commerce is an intermediary between goods producers or service producers and consumers (Parasurarnan & Zinkhan, 2002). Ease of use and content navigation is critical to the success of market-place e-commerce (Parasurarnan & Zinkhan, 2002). Clustering is key to marketplace e-commerce ease of use and content navigation (Ciguene & Marron, 2021). It is for this reason that it is easy to give the term clustered e-commerce to marketplace e-commerce. Clustering is the basis of all marketplace e-commerce, including Amazon (Ciguene & Marron, 2021). This is because these platforms base sales on the categorisation of products (Ciguene & Marron, 2021).

Besides categorising products, clustered e-commerce brings businesses together through their product offering (Oxera, 2015). They are digitally enabled platforms that cluster multiple sellers and connect them to buyers (OECD, 2019). Most of these actors or players are unknown to one another and therefore clustering is a form of a matching mechanism (OECD, 2019). Clustered e-commerce focuses on grouping objects, based on their similarity (Ciguene & Marron, 2021). This means that e-commerce site owners have to have a good understanding of their users' interests and the type of products that are sold on their platforms (Su & Chen, 2014).

Like physical shopping centres (clusters), large marketplace e-commerce sites must help visitors to navigate the space and know exactly where to find certain categories (Su & Chen, 2014). Shopping malls became popular with shoppers because of the clustering effect (Mittala & Jhamb, 2016). A study by Accenture (2019) acknowledges that marketplace e-commerce is the new wave of retail growth (Accenture, 2019). The availability of different types of shops and products is what has created the success of malls (Mittala & Jhamb, 2016). Like malls, clustered e-commerce is based on the concept of providing a centralised marketplace. It was after the dotcom-bubble burst that a lot of research on how customers could be led to e-commerce as an alternative to brick-and-mortar malls and shopping centres appeared (Ezzi, 2015).

The clustered marketplace has been established across cultures for many years (Moore, 2012). With the establishment of marketplace e-commerce, clustering has remained central. Clustering on e-commerce relies on predictive accuracy to categorise products into thousands of leaf categories (Tan et al., 2020). This clustering gives individual companies innovative solutions, while also creating very strong competition amongst sellers (Kawa & Magdalena, 2019).

Marketplace e-commerce clusters products and services from numerous sellers which are then offered to clients (end consumers and customers) (Kawa & Magdalena, 2019). Clustering can occur on an individual e-commerce platform, but this is merely limited to products coming from the company. Marketplace e-commerce provides a selling platform to other businesses (Kawa & Magdalena, 2019). These platforms can be seen as electronic malls (Kutz, 2016). This process makes the traders relate to one another forming business clusters (MacGregor & Vrazalic, 2006). Marketplace e-commerce relies on clustering and can be termed clustered e-commerce because it is

a website that connects third party merchants on one platform with shoppers (Euromonitor International, 2018).

Rappa (2010) believes that the marketplace e-commerce model clusters buyers and sellers together and facilitates the transactions. Marketplace e-commerce relies on algorithms to cluster and find information (Rappa, 2021). However, Wroblewska et al. (2017) argue that the data provided by vendors and sellers on marketplace e-commerce is inconsistent, even with the same products and therefore performing any algorithm on such data results in poor clustering. The authors agree that clustering is key to the success of marketplace e-commerce (Wroblewska et al., 2017).

The main advantage of clustering in marketplace e-commerce is that there is a high number of sellers and buyers in one place (Kawa & Magdalena, 2019). This advantage is equally a disadvantage as there is very strong competition from many sellers in one place (Kawa & Magdalena, 2019).

Within the technology space, the growth of a cluster is not only dependent on its lifecycle but the technology development and lifecycle (Kuah, 2002). E-commerce clusters depend on innovation and technology evolution to remain competitive (Kuah, 2002). These platforms keep several features in place to ensure that the cluster is sustained and continuous (Euromonitor International, 2018).

As mentioned in the theory section of this research, factor inputs are critical to the success of a cluster, the features mentioned in figure 1.1 are part of the factor inputs that are offered by the cluster. These features help the merchants to deliver against consumer expectations during and after the sales process (Camilleri, 2021).

Generally, order fulfilment is about ensuring that the order is delivered to the purchaser. The e-commerce provider takes over the reception, storage, packaging and sending the package to the purchaser (Kawa, 2017). Order fulfilment has been key to the success of Takealot in South Africa, Takealot sees it as an obligation to ensure that the product ordered is delivered to the physical address which is nominated by the purchaser (Takealot Online (Pty) Ltd, 2021). Order fulfilment and quick delivery has been the major reason for the growth of marketplaces (clustered e-commerce) (Euromonitor International, 2018).

Cloud computing is crucial in African markets as there are challenges with telecommunication infrastructure, internet, and credit card penetration (Said, 2017). Cloud computing is about interactive online selling and purchasing technology (Tuncay, 2010). Cloud computing contributes to the competitive advantage of firms trading on e-commerce because it enhances methods of buying, selling, and dealing with the end customer (Said, 2017).

Another input feature of clustered e-commerce is that the sellers get to benefit from the advertising activities of the platform. Marketplace e-commerce drives the growth of the total cluster. Amazon's marketing strategy is focused on driving customer traffic to the Amazon.com website and building customer loyalty for the benefit of the cluster (Sadq, 2018). This strategy is common amongst marketplace e-commerce platforms. To attract buyers, they go directly to where the consumer's attention is focused: social media and search engines (Solis, 2018). Buyer acquisition and retention are critical, and therefore activities, such as loyalty programmes, are key to the marketing efforts (Solis, 2018). There are instances where individual products will be advertised, but the general objective of advertising is to draw traffic to the cluster (Sadq, 2018).

Takealot in South Africa generates 50% of its traffic from direct customers and 44% from search engines (Similarweb, 2021). The key feature of advertising by marketplace e-commerce platforms is to keep and recruit consumers and third-party merchants (Euromonitor International, 2018). Recruiting new merchants helps to grow the cluster which leads to a vast product selection (Euromonitor International, 2018). Seller acquisition accounts for 20% of marketplace objectives, however, this does not mean that efforts are not being applied to recruit new sellers (Solis, 2018).

As previously mentioned, marketplace e-commerce has all the characteristics of traditional clusters. Traditional cluster marketing has the following functions: researching markets, developing new markets, access to markets, sales promotion, and brand building (Tu, 2011). The adoption of these functionalities in what is termed marketplace e-commerce is very clear. The marketing initiatives that are employed within the cluster help small and medium enterprises within the cluster overcome some of the deficiencies (Tu, 2011). Traditional cluster literature points to the view that the cluster brand is highly dependent on the corporate and product brands within the cluster (Tu, 2011). It is for this reason that one of the key focus areas in marketplace

e-commerce marketing is the recruitment of merchants (Euromonitor International, 2018).

Traditional cluster marketing and advertising have been successfully implemented on e-commerce clusters (marketplace e-commerce). The value of the cluster brand is enhanced with the support of the brands and products within the cluster (Tu, 2011). This is explored in detail in the section on business location selection and how the place image has an impact on the location choice of businesses.

2.7 Marketplace (Clustered) E-Commerce in South Africa

Kalahari.com was launched in 1999 as one of the first e-commerce platforms in South Africa (Wits Business School, 2012). The company launched a marketplace in February 2010 (Wits Business School, 2012). Marketplace e-commerce provides the infrastructure for others to sell their goods (Goga et al., 2019). Marketplace e-commerce in South Africa is dominated by Takealot (Statista GmBh, 2021). The dominance of one single player in the marketplace e-commerce space is not unique to South Africa, the rapid expansion of one dominant platform is common internationally (Goga et al., 2019).This dominance can create an advantage which can lead to abuse, especially when marketplace e-commerce players have dual roles as they act as online retail stores and at the same time, operate as marketplaces in which third-party sellers trade and use their marketing and logistics services (Goga & Paelo, 2019).

Despite the dominance of one player in South Africa's marketplace e-commerce space, South Africa is one of the leaders in e-commerce development in the Sub-Saharan African Region (Haji, 2021). The most popular clustered e-commerce platforms in South Africa are Gumtree.co.za, Takealot.com and Amazon.com (Haji, 2021). The most purchased products on marketplace e-commerce besides data and airtime is clothing and apparel (International Trade Administration, US Department of Commerce, 2022). Despite this e-commerce, including marketplace e-commerce, is still in its development stage in South Africa (Adheesh, 2017). Worldwide Worx reported in 2018 that e-commerce total revenue was R14 Billion.

In February 2021, the Competition Commission South Africa released a draft for public comments as it launched an enquiry to look at the dominance of certain players in the e-commerce marketplace in South Africa (Competition Commission South Africa, 2021). The enquiry was aimed at determining if any of the digital marketplace platforms have features that obstructed or distorted competition (Competition Commission South Africa, 2021).

The enquiry was broadly focused on the following areas:

- Features that may impede competition amongst the platforms.
- Market features that may create discrimination or exploitation of business users
- And market features that may negatively impact the participation of SMEs and historically disadvantaged firms (Competition Commission South Africa, 2021).

E-commerce, including marketplace e-commerce, is regulated by the Electronic Communications and Transactions Act 2002 (“ECTA”) (International Trade Administration, US Department of Commerce, 2022). The Act was structured as an attempt to build trust in relation to electronic transactions by setting up procedures to ensure the security of the user (Pillay, 2017). Brick-and-mortar stores must comply with certain legal requirements and so do online stores (Strachan, 2015). The ECTA is the primary legislation in the regulation of marketplace e-commerce in South Africa and it also deals with issues related to consumer protection (SWVG Inc, 2022).

Though the ECTA is the primary legislation in regulating e-commerce, e-commerce sites in South Africa must comply with legislation such as National Credit Act, the Copyright Act, the Value Added Tax Act, and the Consumer Protection Act (International Trade Administration, US Department of Commerce, 2022). Privacy is protected by the Protection of Personal Information Act ("POPI") (SWVG Inc, 2022).

The legislation pertaining to marketplace e-commerce has been formulated to meet the developmental goals of South Africa (Michalson & van Zyl, 2009). The ETCA’s primary objective is to facilitate and provide legal assurance on e-commerce (Snail, 2009). Many have believed that global e-commerce firms provide a route to avoid taxation in South Africa and that this would disadvantage local competitors (Goga & Paelo, 2019). Goga and Paelo (2019) argue that South Africa has been progressive when it comes to the taxation of digital products and physical products traded on e-commerce. The legal framework is there, but there are no mechanisms to monitor

online purchases and thus SARS relies on companies to voluntarily comply (Goga & Paelo, 2019).

In South Africa, rural areas do not have significant participation in e-commerce and marketplace e-commerce (Haji, 2021). Urban areas have a higher level of e-commerce expansion than rural areas (Haji, 2021). The lack of adoption in rural areas is due to many factors, including education, logistical challenges, and address validation (Mkhosi, 2017). Moeti et al. (2021) looked at the acceptance and use of online shopping in Limpopo province and concluded in their report that the lack of access to technological infrastructure was a key impediment to the lack of growth in marketplace e-commerce. Rural areas do not enjoy the same access to the internet as urban areas (Moeti et al., 2021). Given the size of the country, there are many parts of the country which are not accessible (The Nielsen Company, 2015).

Logistics infrastructure plays a critical role to the success of clustered e-commerce, logistical connectivity requires work in South Africa (Mkhosi, 2017). The lack of roads and debilitating rail infrastructure make it difficult to deliver goods to consumers (Tempest, 2020). Logistics is a core function of marketplace e-commerce, and this includes warehousing and delivery (Goga et al., 2019). Unlike brick-and-mortar stores where the delivery takes place at the store, marketplace e-commerce platforms must focus on the speed at when the ordered items reach the customer (The Nielsen Company, 2015). Delivery services (logistics) are critical to the success of e-commerce in South Africa; however, these remain unreliable (Cilliers & Bean, 2019). The logistics industry is constantly expanding with technological advancements. It requires infrastructure expansion and communication for its complete fulfilment (Pradha, 2018).

Pradha (2018) explains the marketplace e-commerce logistics in the model (Figure 2.1).

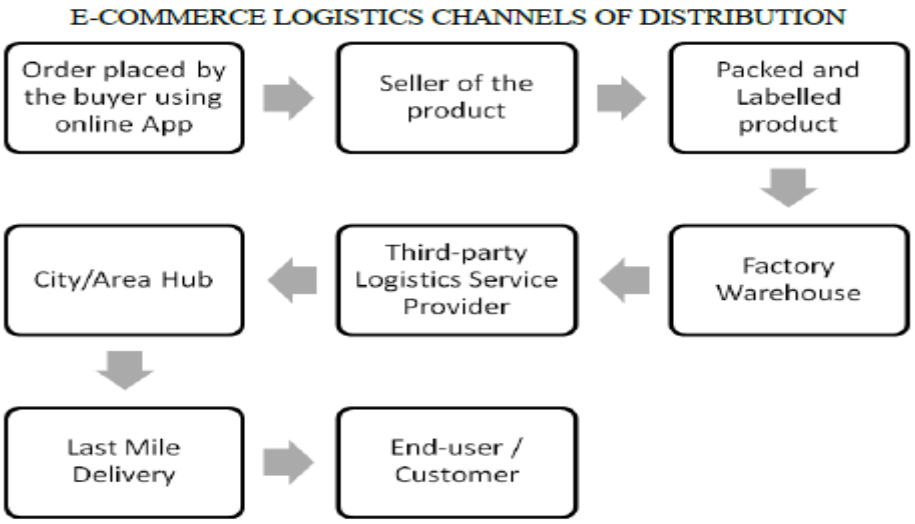


Figure 2.1: E-commerce logistics channels of distribution: (**Pradha, 2018)**.

Major players in the marketplace e-commerce industry either have their own logistics distribution capabilities or use third-party logistics providers (Pradha, 2018). The logistic model adopted is constantly changing as companies are continuously assessing the levels of control and ownership of logistics infrastructure (International Air Transport Association (IATA), 2020). Large marketplace players in South Africa handle the logistics that are associated with trading products online, they handle the warehousing deliveries, returns and payments (Thompson, 2022).

Marketplace e-commerce has influenced the growth of home deliveries in urban areas (Visser et al., 2014). Home delivery is not simply limited to a home address, it can also be to an office, another address, or a pick-up point (Visser et al., 2014). The ability to deliver is a main competitive advantage and a critical success factor in marketplace e-commerce (Ocicka & Raźniewska, 2016).

According to Statista (2022) in a study conducted in 2020, the key players in home delivery are marketplace platforms. Mr D Food had a 30% usage share, Uber Eats had a 25% usage share and the “others” had a 15% usage share (Statista, 2022). The restaurant to consumer segment was higher than the platform to consumer segment in revenue and this is still projected to follow the same trend up to 2025 (Statista, 2022).

Marketplace e-commerce has also been identified as a key tool to empower women and reduce poverty (Adheesh, 2017). Soko is a marketplace e-commerce platform that connects craftswomen in developing countries to the global marketplace by allowing

vendors to sell their goods directly to global consumers (Adheesh, 2017). In the research by Stander (2015), it is acknowledged that a greater opportunity exists for women empowerment through ICT. E-commerce can allow women to work from home while creating a work-life balance (Stander, 2015). Stander (2015) concludes that more South African women were using the internet to earn an income and that marketplace e-commerce was more likely to be adopted by affluent women. In the study on Women and E-commerce in Africa by the International Finance Corporation (2021), it was found that women were more likely to use e-commerce.

2.8 HBB Considerations in location choice

In the theory section, the research looked at the location theory. This section looked at the underlying dynamics of the business location and the factors that influence that decision. The amount of money and time invested in new locations by businesses indicates that the location choice is significant (Karakayi & Canel, 1998). The location choice of a business has the ability to determine the success and sustainability of the business (Lumbwe et al., 2018). The need for an appropriate location affects both new and well-established businesses (Lumbwe et al., 2018). Płaziak and Szymańska (2014) believed that the benefits of choosing the right location may be economic, social, and demographic. Choosing the right business location has an impact on the company's future in both the short and the long run (Dixit et al., 2019). Business location decisions are influenced by different factors. This study focused on the following factors: the ability to trust marketplace e-commerce platforms; economic factors; community fit and market e-commerce common elements (Dixit et al., 2019).

2.8.1 Marketplace e-commerce common elements and influence on business location choice

Looking at the most dominant marketplace e-commerce platforms, the following features are established to maintain the cluster and add value to businesses.

Table 2.2: Marketplace E-commerce elements

Feature	Amazon	Alibaba	eBay	JD.com	Rakuten
Fulfilment	X	X	X	X	X
Cloud computing	X	X			X
Advertising	X	X	X	X	X
Financial services	X	X	X	X	X

(Euromonitor International, 2018)

Marketplace (clustered) e-commerce is practically an online community where participants can provide and exchange information on products, services, and other interests (Kim et al., 2008). These online communities help firms to play an important role in improving market penetration and sales generation (Kim et al., 2008). Researchers argue that like physical communities, online communities must have a shared feeling of belonging. Furthermore, literature suggests that the same principles that a business would employ when deciding on a physical business location need to be applied when choosing a virtual location. Marketplace e-commerce has all the features of a community as it brings together multiple sellers and buyers in one common marketplace (Burn et al., 2005).

It is, therefore, expected that marketplace e-commerce positively influences the location choice of home-based businesses in South Africa. It is this view that informs the following hypothesis:

H1: Marketplace e-commerce common elements influence the location choice of home-based businesses in South Africa.

2.8.2 The ability to trust marketplace e-commerce platforms and location choice

Trust is a key element in trading and supply chain processes. Trading partners need to ensure that a trusting environment exists for trade relations to prosper (Kwon, 2004). This study focuses on elements of marketplace e-commerce which influence trust. The

ability of a business to trust an external partner to fulfil orders on their behalf is based on high levels of trust. This means that the business trusts another business will perform certain activities that will result in a definite outcome (Ghondaghsaz & Engesser, 2021).

The nature of the relationship between home-based businesses and marketplace e-commerce can be placed within the supply chain discipline and marketing discipline (Ghondaghsaz & Engesser, 2021). Frydlinger et al. (2019) argue that in this type of an environment, trust cannot be attained only through a contract, but through ensuring that all parties share a common interest. Contracts will always have gaps and omissions, but when both parties have a common interest, a partnership is established (Frydlinger et al., 2019).

Home-based businesses trading on marketplace e-commerce rely on the features of the website to gain trust as they seldomly interact directly with the buyers (Sun, 2010). The seller is dealing with an intermediary platform with little interaction with buyers and therefore they must trust that the platform functions in a manner that protects their interests and attracts buyers (Sun, 2010). Within the marketplace e-commerce environment, the interaction is between a human and a computer, and this means that the trustor has no human-to-human relationship with the trustee (Lee et al, 2018). This means that the relationship is determined by technological trust. Technological trust means that the seller trusts that the technological infrastructure can perform the expected tasks (Soleimani, 2021). Because sellers are interacting with a computer, the ease of use has a significant role on the ability of the HBB to trust the platform (Soleimani, 2021). Technology cannot be accepted if the users are unable to trust it (Sun, 2010).

The relationship between e-commerce platforms and home-based businesses is characterised by a significant amount of data sharing (Ghondaghsaz & Engesser, 2021). The existence of trust in relationships where data that can compromise the competitive advantage is of utmost importance (Sun, 2010). The lack of trust can result in low levels of efficiencies as parties will withhold data that is critical to the fulfilment of the task (Ghondaghsaz & Engesser, 2021).

This implies that trust is key in the location choice of home-based businesses since they need to manage their risk exposure just like any other business.

H2: Trust in marketplace e-commerce platforms influences the location choice of home-based businesses in South Africa.

2.8.3 Economic Considerations in Business Location Choice

Literature suggests that every location choice is taken to maximise the economic benefits of a business (Heizer & Barry, 2016). Home-based businesses consider a location that will minimise the operating costs of the business (Anyadiegwu & Mbohwa, 2018; Lumbwe et al., 2018). Empirical research has argued that the benefits of choosing the right location from an economic perspective could have an impact on the required investment, a reduction of costs to maximise profits and more rapid economic growth for the business (Płaziak & Szymańska, 2014).

Furthermore, researchers argue that the right location should be chosen for the right business (Plaziak & Szymanska, 2014). This process is continuous and does not just end at the launch phase. The location choice is dependent on the consistency of features of the business (Plaziak & Szymanska, 2014). Dixit et al. (2019) highlighted the fact that business location choices start with economic factors such as transportation, labour, real estate, construction costs, proximity to suppliers or market.

Regulation costs could also be an economic factor. Regulations influence business location decisions, as each regulation has a cost implication (Dixit et al., 2019). Compliance has a cost, the cost of compliance is time and money spent in conforming to government regulations and requirements (Marx & Mynhardt, 2011). The cost of compliance as an economic factor can be broken into two categories which are the cost associated with being compliant and the cost of non-compliance (Marx & Mynhardt, 2011). When considering economic factors, location decisions are made to minimise the cost of operation and this includes conforming to regulations (Lumbwe et al., 2018).

As mentioned previously in the literature review, regulations have an impact on businesses in South Africa. In 2015 there were 2,251,821 Small Medium Enterprises in South Africa, and only 667,433 were formally registered (Nieuwenhuizen, 2019). The lack of formal registration is due to the red tape and over-regulation. Herrington and Kew (2017) agree that regulatory requirements are a constraint to SME compliance and growth in South Africa (Herrington & Kew, 2017). The location choice based on local regulations can be seen in how businesses are choosing Cape Town as a location in South Africa (PricewaterhouseCoopers, 2018).

Transport cost is another economic factor that is crucial in business location choice across all businesses. The type of transport required is influenced by firm characteristics and also the influence of transport varies by firm type (Rahman & Kabir, 2019). Additionally, efficient transport is known to reduce costs in many economic sectors (Rodrigue, 2020). The impact of transportation on the location choice of businesses mainly focuses on the impact of accessibility and the influence of the accessibility of certain transport facilities such as airports and bus stations (Jiang, Xu, & Zhang, 2018). Even high-technology industries are affected by transport infrastructure (Jiang et al., 2018). The reason that transport is key to location choices of businesses is that accessibility is key to accessing resources (Jiang, Xu, & Zhang, 2018). Accessibility is not just about access to the market, but also access to suppliers (Dixit et al., 2019). Rodrigue (2020) acknowledges that transportation systems can ensure access to markets and resources and therefore play a key role in the location choices of businesses.

Additionally, researchers argue that choosing a virtual location can also be based on economic factors. E-commerce provides a way for small firms to compete with larger competitor in accessing markets by overcoming distance (Venter, 2015) . E-commerce allows people to transact online at any time using a payment system that is secured (Haryanti & Subriadi, 2020). As a location choice, e-commerce reshapes the conventional business model and takes away some of the costs through the reorganisation of business processes and systems (Makame, Kang, & Park, 2014). E-Commerce as a location choice provides reduced costs for both the seller and the buyer in the completion of the transaction (Makame et al., 2014). In 2018, 18% of total sales in the European Union were conducted via e-commerce (Jovanovi´ et al., 2020).

In considering the economic benefits of e-commerce as a location choice, businesses see it as a location that advances the firm market position because it delivers inexpensive and more operational distribution sequence for their products and/or services (Taher, 2021). E-commerce allows businesses to extend their offering to a wider customer range, unlike only servicing the demand which exists within their immediate location (Taher, 2021). A merchant can display their product online without having to set up a showroom or shop in another city (Taher, 2021). There is no limitation to the space that a store can occupy when trading on e-commerce. E-commerce provides unlimited catalogue space for the merchant (Jamsheer, 2019).

In the book called the *Longer, Long tail*, Anderson (2009) talks about how e-commerce has helped create endless catalogues because an enterprise is no longer limited by the walls that would be found in a conventional store. Conventional stores have limitations for both the merchant and the buyer (Taher, 2021). E-commerce benefits small businesses through the reduction of market entry costs, lowered distribution costs and increases the organisation's ability to reach more customers or consumers (Ezzi, 2015).

As a location, e-commerce requires the business to have an electronic device such as a laptop or mobile device and an internet connection (Taher, 2021). The need to have a physical store is reduced, there is no need for a conventional store when a merchant is trading on e-commerce. E-commerce reduces the significance of the size of the operation. Amazon, Takealot and other marketplace platforms give businesses online store fronts with no geographical constraints (Reuschke & Mason, 2020).

Literature and previous empirical studies reviewed above somehow highlighted the influence of the economic factors on the HBB location choice. This perspective informs the following hypothesis:

H3: Economic factors influence the location choice of home-based businesses that trade on marketplace e-commerce.

2.8.4 Community fit in Business Location Choice

Every community has a story and image that it tells the world, for example, Silicon Valley is known as the technology hub of the world (Dixit et al., 2019). Choosing Silicon Valley as a business location is most likely going to have an impact on the image of that business and its place within the technology community.

The concept of community fit falls within the cluster theory. As previously mentioned in the theory section, clusters give entrepreneurs and firms a sense of identity (Cooper & Folta, 2000). The ability to fit within the community will provide a business with the benefits that are found within a cluster. Clusters provide an ecosystem that can help drive collaboration and innovation (Jones Lang LaSalle IP, Inc., 2016). Choosing a location within a community that has similar businesses will enhance the business's credibility and boosts the firm's image. The image of the community carries over to the image of the individual business (Zumbach, 2010).

The community fit also determines access to human and social capital, access to information, capital of knowledge, business services and innovation (Plaziak & Szymanska, 2014). Human capital does not necessarily relate to cheap labour, but crucial skills (Plaziak & Szymanska, 2014). Operating within a relevant cluster or community gives the firm access to a large talent pool that specialises in the field in which the firm operates (Jones Lang LaSalle IP, Inc., 2016). At times, these resources are shared within the community or cluster (Jones Lang LaSalle IP, Inc., 2016). The qualities of the workforce and costs have been evaluated to be extremely important in the firm choosing its location (Fusková et al., 2018). The right community is highly likely to have availability of labour with appropriate skills and experience (Plaziak & Szymanska, 2014).

When looking at clusters, such as Silicon Valley, a clear visible characteristic is access to a highly skilled labour market, proximity to competitors and the transfer of knowledge that comes with the community atmosphere (Zumbach, 2010).

While cities are facing increased pressure to market themselves in order to attract the right businesses, virtual clustered e-commerce platforms also have the burden of ensuring that they attract the right sellers (Euromonitor International, 2018). Place branding is key to community fit. To sustain the community, focus has to be applied

on the place image. Place image plays a role in the selection of a community (Clouse et al., 2020). The visual image, brand and reputation of a place has a direct effect on place image (Clouse et al., 2020). This has a direct impact on location choice. Traditionally, business location choice process only considered economic factors such as real estate costs and tax incentives (Zumbach, 2010). Place image is key for both the platforms that want to attract sellers and also the sellers that are looking for a location to trade (Anholt, 2010). Place image can also be affected by the participants in the community. The identity of the community is key to place image as it makes an impression on the overall image of a place (Clouse & Dixit, 2017).

Both physical and virtual clusters are promoted using place images. The place images represent beliefs, ideas, and impressions that other people have of the place (Clouse & Dixit, 2017). The image of the community can help increase the competitiveness of the firm and accelerate innovativeness. The place image will increase the overall strength of the community and cluster (Zumbach, 2010).

The community fit in business location choice takes into consideration factors such as the nature of the cluster or proximity of the community to a cluster, what anchor institutions are in that community or cluster, and the presence of innovation and social networks in that community (Dixit et al., 2019).

On clustered e-commerce (marketplace e-commerce), the community fit is achieved when all users are engaged and committed to the platform. Participants exchange information on products and services (Kim et al., 2008). Online communities represent firms and people who share a common interest (Kim et al., 2008). Through these platforms, firms acquire more reliable and multidimensional information on shopper trends and behaviour (Kim et al., 2008)

HBB location choice is also driven by community fit. Home-based businesses have an impact on their local community (Rahman & Kabir, 2019). Each business has a belonging need which is provided by the community structure (Pierce-Lyons, 2009). The business provides an economic protection to the community and the community provides social protection to the business (Pierce-Lyons, 2009).

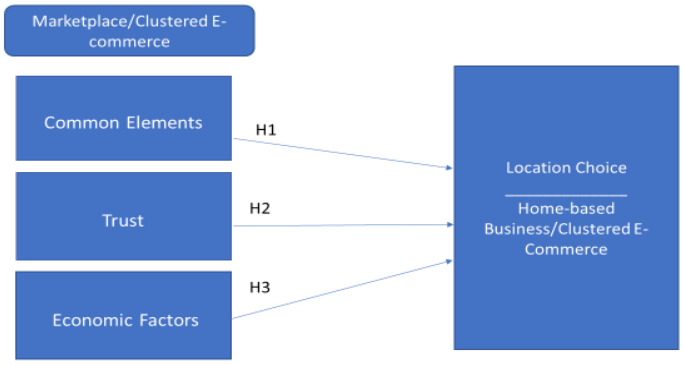
Isenberg (2011) looks at community fit from an entrepreneurial ecosystem view. Being a part of an entrepreneurial ecosystem provides a cost-effective method of stimulating economic prosperity. Entrepreneurial ecosystems are a necessary pre-condition to

cluster strategies (Isennberg, 2011). Entrepreneurial ecosystems take place in a community of interdependent actors (Stam & Spigel, 2016). Community fit is critical as all actors are interdependent.

2.9. Conceptual Framework

The conceptual framework is aimed at explaining the phenomenon that is being researched and the presumed relationship between the variables (Creswell, 2009).

Figure 2.2: Study Conceptual Model



This can be defined as a systematic conceptual framework since it uses a figure rather than narrating the concept (Shikalepo, 2020).

The following work guided the conceptual framework that has been depicted in figure 2.2

- Location Choice – This is influenced by the work of Weber who looks at how location choices are influenced by the assessment of the advantages and disadvantages (Bater & Walker, 1970). Decision-makers consider trading locations based on the expected profits (Rahman & Kabir, 2019). This is further influenced by the work of Porter (1998) who looks at the role of clusters in business.

- Home-based businesses- This is influenced by the work of Gelderen (2008) who looks at the characteristics of home-based businesses

- Marketplace (Clustered) e-commerce – This is guided by the work of Ciguene and Marron (2021) who look at clustering in marketplace e-commerce and its elements.
- Marketplace e-commerce common elements- This was guided by industry research from Nielsen (2015), Euromonitor International (2018) and Pradha (2018). All this work looks at the common elements of marketplace e-commerce platforms.

Table 2.3 lists the articles that have served as a guide for the study. The literature review has been framed and built with the help of these articles. This literature has been essential in defining the key concepts, assessing the appropriate academic frameworks.

Table 2.3 Summary of Essential literature used as a guide for the study

Author (s)	**Home Based Business**	**Marketplace/Cluster E-Commerce**	**Location Choice**
Dubé et al., (2016)			Location of firms based on economic geography
Isard (1956)			Distance to market and location decisions
Makgata (2004)			Proximity to markets and location decision
Lazzeretti et al., (2012)		Location of clusters and global dimensions	
Cooper & Folta (2000)		Locating within a cluster and benefits for entrepreneurs	
Porter (2000)		Cluster Advantages and Disadvantages	
Kane & Clark (2019)	Split between traditional and digital Home-Based Businesses		

Taher (2021)		New Forms of clusters (virtual clusters)	
Molapo (2014)			E-Commerce amongst small businesses
Wynarczyk & Graham (2013)	Characteristics of Home-Based Businesses		
Modarresi, Arasti & Talebi, (2016)			
Reuschke & Mason (2020)	Education levels and Home-Based Businesses		E-Commerce impact on Home-Based Businesses
Deloitte (2021)		Growth and size of e-commerce in South Africa	
Gogaet al.(2019).	Home-Based Businesses use of clustered e-commerce	Clustered E-commerce as route to market for Home-Based Businesses	
Walker (2003)	Legitimacy of Home-Based Businesses		
Smit & Donaldson (2011).	Types of Home-Based Businesses		
Philips (2002)	HBB Markets		Economic factors in HBB location
Kapasi & Galloway (2018)	HBB Ownership		Factors affecting the location choice of Home-Based Businesses
Urban & Msimango-Galawe (2021).	Women and Home-Based Businesses		
Reuschke et al. (2022).	Home-Based Businesses and Digital Platforms	Impact of digital technology on Home-Based Businesses	
Heizer & Barry, (2016)	Cost Minimisation in Home-Based Businesses		Economic Benefits of location choice
Rahman & Kabir, (2019)			Transport cost in business location choice
Dixit et al. (2019).		Community fit in clusters	

Kim et al. (2008)		Common Elements	

2.10 Chapter Summary

The literature review provided a detailed view of the literature on home-based businesses. A HBB is any business that uses a residential property instead of a commercial property as a base to conduct business (Robert & Gary, 2010). This is not a new concept as business and residence were once closely linked (Kane & Clark, 2019). It can be concluded that home-based businesses are legitimate businesses that contribute to the economy. There are two dimensions to the South African HBB environment, namely: the informal and the formal business environment (Kane & Clark, 2019).

The literature review on characteristics of home-based businesses showed that they strive to be lean, have multiple incomes, and are smart. The use of the internet has enabled HBB to have income from multiple channels (Reuschke & Mason, 2020). This advances the view that the location decision of home-based businesses is based on economic factors, trust, and access to markets.

Marketplace (clustered) e-commerce has facets that impact the location choice of home-based businesses. It provides access to broader markets and provides factors that are key to the operations of home-based businesses. These elements have an impact on the location choice of home-based businesses.

CHAPTER 3 - RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research methodology that was adopted in the research to investigate the identified hypotheses. The chapter discusses the theory in detail and shows how it has influenced the approach that has been adopted. The data collection and sampling method is explained. Detail is provided on the measuring instruments that have been adopted and concludes with giving a clear understandable breakdown of the data analysis process.

3.2 Research Paradigm

A research paradigm is a set of basic rules or principles (Aliyu et al., 2015). Hesse-Biber (2009) believes that a paradigm is a framework within which theories are constructed.

A research methodology is a theory of how a study should proceed. Methodologies define the problems to be investigated and how to frame a problem (Creswell et al., 2003).

The values underlying the studies paradigm are neutrality, objectivity and ensuring that a sizeable possibility of knowledge is acquired (Leavy, 2017). Applying these values means that the study can be replicated as it focuses on hypothesis testing. Quantitative research has allowed for the control of the implication amongst the self-sufficient variable and the reliant variable (Abuhamda, Ismail, & Bsharat, 2021) The values are applied to make this study more objective as the reality raised can withstand the test of facts. These facts will remain regardless of who measures them (Ryan, 2018). The theory that underpins this approach and values is positivism.

Positivism believes that knowledge should be objective and not biased (Ryan, 2018). It is aligned with the hypothetico-deductive model that focuses on verifying a hypothesis (Park et al., 2020) This theory fits the study as it is empirical, based on

experimentation. This is because the primary goal of the approach is to generate explanatory associations.

A positivist enquiry requires that the experimentation is well defined and described (Park et al., 2020). Furthermore, the functional relationships can be resultant between independent variables and dependent variables (Park et al., 2020). The positivist theory fits this study because it assumes that a reality can be understood, measured, and identified.

This research fits the positivist theory as it carried out a survey and the respondents were not influenced in any manner. This was a systematic approach aimed at looking for patterns. Positivism is about using a concise discussion and excludes descriptive stories about human feelings (Ulinnuha , 2020). Positivism promotes the view that any other researcher can arrive at the same conclusion (Mukherji & Albon, 2014). This was highlighted earlier in this section when it was stated that quantitative research can be replicated. This is because the core objective of the research was to measure the extent of the phenomenon. How this was done is explained in detail in the section on data collection and sampling.

It was critical for the study to be guided by a research theory as this provided a foundation and a structure. The theory provided a compass that gave direction to the approach that the study took (Abuhamda et al., 2021). Having a theory that guides the approach of the study has served as a barrier to engaging in approaches that would influence the outcome or the collection of data (Pigott, 2017). Post-posivists believe that it is impossible to fully accomplish this though, as even the identity of a researcher would influence what they conclude (Fox, 2008).

Post-posivitism rejects the view that a researcher can be independent (McGlinchey, 2022). It is believed that there will always be bias in research based on the researcher's background (McGlinchey, 2022). Post-posivists believe that research cannot simply be empirical, it must take into consideration multi-dimensions. Post-posivism believes that data cannot be analysed on its own, other viewpoints have to be taken into consideration (Panhwar et al., 2017).

The ontological concern of positivism is that there is an objective reality which is governed by quantitative data (Aliyu et al., 2015).

This objective reality influences the methodological paradigm. The research approach involved closed-ended questions with numeric data. The approach purely observes and measures the information statistically. Positivism as a theory is well suited to this research as it is about using a short discussion and excludes descriptive stories about human feelings (Ulinnuha, 2020). Constructivism, on the other hand, would study the context and setting of the participants (Dudovskiy, 2022). Positivism is linked to research that uses standards of reliability and validity (Dudovskiy, 2022).

3.3 Research Approach

This study has followed the model of quantitative research. This is because the study has examined relationships amongst variables (Creswell, 2009). The hypothesis that has been presented were tested quantitively. Quantitative research is a method of testing claims about the group or population that the study is observing (Privitera, 2017). The quantitative research method follows a structured inquiry about a phenomenon through the collection of numerical data and execution of statistical techniques (Creswell, 2009). The research places emphasis on figures through the use of statistics. This is because the research is focused on hypothesis testing. A hypothesis is the statement that was created in chapter one of this research which speculates the outcome of the research (Mourougan & Sethuraman, 2017). This was the tentative position taken at the start of the research and accounted for the set of facts which have been tested in this research (Mourougan & Sethuraman, 2017).

Using the quantitative approach, the research was able to focus on the purpose of the study using questions and hypotheses. The quantitative approach is a great tool to focus a study (Mourougan & Sethuraman, 2017). This is because the approach compels the researcher to specify the null hypothesis and the alternative hypothesis (Mourougan & Sethuraman, 2017).

The study fits the characteristics of quantitative research as described by Johnson and Christensen (2012). The research approach is aimed at understanding the observed population rather than a particular group in a specific context (Mukherji & Albon, 2014).

Quantitative research always focuses on objectivity and is fitting to this study because quantifiable data can be collected and measured against the variables (Queirós et al., 2017). The research has applied a structured procedure in the form of a survey. This fits within the quantitative approach as it has adopted a formal instrument for data collection (Queirós et al., 2017). Quantitative data is numerical and therefore the collection method has to produce numerical data.

Quantitative research allows for focus on understanding the context of the problem within a smaller sample with a group dimension that is small (Queirós et al., 2017). This research approach has allowed the researcher to have modest proximity to the problem that is being studied (Queirós et al., 2017). Adopting this approach has allowed the research to either prove or disprove the existing theories that have been described in the theory section. The deductive approach that comes from the process of quantitative research is aimed at proving, disproving, or giving credence to existing theories (Leavy, 2017). This approach is appropriate to this study because it is aimed at evaluating the causal impact that e-commerce has on the location choice of Home-Based Businesses. The quantitative approach is fitting when the primary objective is to explain or evaluate (Leavy, 2017).

3.4 Population and Sample

The term population is used to refer to the set of all the units to which the finding of the research is applied (Majid, 2018). Cooper and Schindler (2014) define a population as those people, or records that have the information to answer the measurement questions (Cooper & Schindler, 2014). Certain populations are not easily identifiable or reachable (Ellard-Gray et al., 2015). This was the case in this study as home-based businesses that trade on e-commerce are hidden.

To ensure that the research reaches the right population in the case of a hard-to-reach population or hidden population, pre-screening questions are crucial (Ellard-Gray et al., 2015). The two first questions in the instrument that was distributed were focused on pre-screening to ensure that the participants were part of the research population. Marketplace e-commerce trading is an emerging social phenomenon and thus the population being studied is also an emerging social group. This means that the

population has an unknown size and privacy issues which make quantitative research more difficult to carry out (Elgabry & Camilleri, 2021).

The targeted population of interest for this study was home-based businesses that trade on marketplace e-commerce. This is an emerging population that is hidden with an unknown size. Home-based businesses are businesses that use a residential property as an alternative to a commercial location to conduct business (Wynarczyk & Graham, 2013).

Based on the nature of the population, the first sampling strategy that was applied is snowball sampling. Targeted snowball sampling was one of the methods chosen because the identified population is emerging and difficult to access (Taherdoost, 2016). When one member of the targeted population was identified, they were asked to identify other members of the target group (Wegner, 2016). This method presented challenges due to slow responses. It is not uncommon to use more than one sampling strategy in cases where there seems to be a challenge with reaching an acceptable sample size (Ellard-Gray et al., 2015). It is recommended that more than one sampling method is executed when trying to reach a population that is hard to reach (Ellard-Gray et al., 2015).

The purposive sampling strategy was applied because the research is focused on a population that has a specific interest (Cooper & Schindler, 2014). Respondents that do not adhere to the descriptive criteria, would not have the knowledge or experience required for them to respond to the survey questions. Purposive sampling helped significantly to overcome the issue of access to the identified population.

Purposive sampling is mostly popular with qualitative research, however, when conducted online, it lends itself to quantitative research because samples can be reached through the distribution of online surveys (Barratt et al., 2015). Purposive sampling can produce data which can be analysed quantitatively when used on digital platforms because it produces large datasets (Barratt & Lenton, 2015).

Though the size of this emerging population is unknown, the study still focused on picking a sample. A sample is about examining a portion of the population (Cooper & Schindler, 2014). Due to limited time and resources, it is doubtful that this research would collect data from the entire population. Sampling techniques have to be applied in order to reduce the number of participants (Taherdoost, 2016). The sample must be

representative of the population, it would distort the outcome of the research if the sample does not represent the population. The sample estimates one or more of the population values (Cooper & Schindler, 2014).

To identify the best possible sample, size and method to be used – the following questions were considered by the researcher;

- Who are the people that represent this population within South Africa?
- How can they be reached/ Where can they be found?
- What are the barriers that will arise when trying to reach this group?

Language that is relevant is key when trying to draw responses from hard-to-reach populations (Ellard-Gray et al., 2015). The labelling of the population became critical at this stage of determining the sample. The research had to change the language by making it clear that home-based businesses are businesses that do not have physical commercial premises. The term clustered e-commerce was labelled as marketplace e-commerce which is a term with which the population is familiar.

Ellard-Gray et al. (2015) provide solutions to reach hidden populations. The researcher was guided by some of the solutions raised.

- Eligibility requirements were set. It was stated clearly that the sample would be drawn from HBB Owners/Managers that trade on marketplace e-commerce in South Africa.
- To overcome mistrust, the researcher had to make it clear what the objectives of the study are and what information would be shared in the results. Rapport was built with individuals that have access to social networks where the sample of the population is most likely to be found.

Purposive sampling in its nature requires the researcher to have situated knowledge and build rapport with the targeted population members using language that is relevant to them (Barratt & Lenton, 2015).

This online purposive sampling also has elements of cluster sampling. The researcher went onto various marketplace e-commerce platforms. Each marketplace e-commerce platform has the name of the seller. Google searches were done to pull contact information as this is not displayed on marketplace e-commerce platforms. This would be identified as cluster sampling. Cluster sampling is done by identifying

clusters that have the population which you intend to research (Sedgwick, 2014). It is expected that the community being studied would be found in these clusters as marketplace e-commerce is a cluster as it was defined in the literature review. Cluster sampling involves inviting members of a cluster to participate in the study (Sedgwick, 2014). Each of the marketplace e-commerce platforms that were selected constitutes a cluster (Taherdoost, 2016). All the sellers on the platform in this method of sampling would be identified as a cluster (Satishprakash & Shukla, 2020).

3.5 The Research Instrument

A research instrument is a tool which is used to collect, measure, and analyse data in research, and this is related to the methodology of the study (de Trigueros, 2017). In quantitative research, the instrument is based on questions (Creswell, 2009). The research instrument is largely determined by the researcher; however, it must be linked to the research methodology (Creswell, 2009). In Quantitative research, surveys are the most used form of research instrument (de Trigueros, 2017).

This study has made use of a self-completion survey. The self-completion survey is a survey that has been designed to be completed by the respondent without involvement from the researcher (Lavrakas, 2008).

The survey was designed using Qualtrics. Qualtrics is a tool that is used to administer and manage surveys (Machado, 2012). The tool allows for the creation and distribution of online surveys (Machado, 2012). Check and Schutt (2012) define a survey as the collection of information from a sample of people through their responses to question (Check & Schutt, 2012). It is a means for gathering data about the characteristics, actions, or opinions of a group of people (Glasow, 2005). Surveys may use several data collection methods and the most common of these are questionaries (Check & Schutt, 2012).

The survey was designed with the data analysis plan in mind, and thus the researcher had to design the survey with the variables in mind. The following variables were operationalised in the survey.

- IV- Market place e-commerce elements: is operationalised using the elements expressed in Euromonitor (2018) and Pradha (2018).
- IV- Levels of Trust: This is operationalised using the work of Ghondaghsaz and Engesser (2021).

- IV- Economic Factors: Dixit et al. (2019) highlighted the fact that business location choices start with economic factors, such as transportation, labour, real estate, construction costs, and proximity to suppliers or market. The economic factors described by the authors provided a basis point for the development of the instrument questions.

The survey was designed to.

- Assess the common elements that make clustered e-commerce a location choice for home-based businesses in South Africa.
- Measure how clustered e-commerce in South Africa has influenced levels of trust amongst home-based businesses.
- Identify the economic factors that influence the decision to choose clustered e-commerce as a location choice.

The questions in the survey were in the form of a Likert scale. This was done to quantify perceptions and opinions. Initially, Likert scales were developed to measure attitudes (Joshi et al., 2015). This objective is still in line with the developer's intention. Rensis Likert developed the Likert Scale in 1932 to measure attitudes (Joshi et al., 2015). This is done in the form of a set of statements asking participants to state their level of agreement (Sullivan & Artino, 2013).

Likert Scales help with quantifying preferential thinking, feelings and actions in a manner that can be validated while maintaining reliability (Sullivan & Artino, 2013). The Likert Scale used in this research has two parts which are namely the statement and the response scale (Johns, 2010). The Likert Scale used in this research ranged from "strongly disagree" to "strongly agree". This would be described as an ordinal scale. Ordinal scales are about categorising data in rank order (Allanson & Notar, 2020). In the case of this research, a hierarchical ranking system was used to indicate comparative levels.

Table 3.1 shows the constructs that were measured in the instrument with the dimensions and comment on the instrument. The table also references the literature source that was fundamental to the development of the construct.

Table. 3.1 literature sources used to develop the research instrument

Construct	Literature sources	Dimensions	Comment on Instrument
Elements influencing location choice	Anholt , (2010). Clouseet al., (2020). de Klerk & Kroon (2005).	• Quick Onboarding • Payment systems • Social Connect • Mobile-friendliness • Administration Interface • Geographic boundaries • Access to Marketplace e-commerce	1 to 5 That is, 1. Strongly disagree 2. Disagree 3. Not sure (neither agree nor disagree) 4. Agree 5. Strongly agree
Levels of Trust	Wątróbski & Małecki (2017); Goga et al. (2019). Ciguene & Marron (2021). Euromonitor International (2018)	• Data protection • Exposure • Growth of marketplace e-commerce • Trust • Reliability • Analytical Information	1 to 5 That is, 1. Strongly disagree 2. Disagree 3. Not sure (neither agree nor disagree) 4. Agree 5. Strongly agree
Economic Factors	Lumbwe et al. (2018). Dixit et al. (2019). Rahman & Kabir (2019). Taher (2021).	• Cost to set up • Labour costs • Resources • Increase sales • Real Estate Costs • Cost Reduction • Shipping Costs • Operating Costs • Market Access • Cluster	1 to 5 That is, 1. Strongly disagree 2. Disagree 3. Not sure (neither agree nor disagree) 4. Agree 5. Strongly agree

3.6 Procedure for data collection

This section of the research articulates the data collection procedure that was followed by the researcher. Data collection was a critical factor in conducting this research. The data collection procedure is a description of the process that was taken to gather the data required for the study (Creswell & Creswell, 2018). This process is influenced by the technique and process that has been chosen in the research design. The procedure begins with a determination of the data that would be required in the study (Kabir, 2016).

The study began with an introduction which detailed the objective of the study, the significance of the study, theories related to the study, and problem statement. This section relied on secondary research. Secondary research is when the researcher uses data that exists and they have not been involved with the process of collecting the actual data (Kabir, 2016). Secondary data was collected for chapter one by searching for existing literature on the subject.

The journal articles referred to in this research ensured that the most up-to-date literature was used in the study. Careful consideration was taken to ensure that the journals were reputable.

The data that is at the core of the research's empirical analysis is primary data. This is data that has been collected from first-hand experience and has never been published (Kabir, 2016). The data was collected using a self-administered survey which was developed and distributed by the researcher. The survey was distributed after ethical clearance for the study was granted. The distribution of the survey commenced in December 2021.

As it was mentioned in the section on population and sample, the research applied online purposive sampling and targeted snowball sampling. This was influenced by the accessibility of the population and sample. Targeted sampling was applied initially when the link to the survey was posted on LinkedIn. The link was posted on the researcher's profile and InMail's were also sent to marketplace e-commerce managers that had a presence on LinkedIn.

The following post was placed on the researcher's profile on LinkedIn.



Figure: 3.1 LinkedIn Post

To recruit participation from clusters, the following message was sent via WhatsApp and email. Details that are in academic language were visible once the person opened the Qualtrics link.



Figure 3.2 WhatsApp Message with Instrument Link

Online purposive sampling was conducted using WhatsApp messages and/or emails with a link to the research instrument. Once a population member was identified on marketplace e-commerce platforms (where the population of this study is found to be

in clusters), using the contact details found on the platform, a member would be sent a link with a request to respond the survey. Some online marketplaces in South Africa comply with obligations set by US law to publish the identity of the seller on their platforms (Corey & Juan, 2020). The researcher conducted Google searches to verify if the sellers met the set criteria of operating from home. Once this was established, an email or WhatsApp was sent with a request to participate in the study. The link to the survey was attached to the request.

3.7 Data Analysis

This section of the report discusses the process followed to analyse the data for this study. Data analysis is the stage in the research process where the data collected is analysed (Field, 2018). It is conducted to see what the trends are in the data (Field, 2018). By looking at the trends, an analysis is conducted to test the hypotheses that had been developed (Cooper & Schindler, 2014). Besides testing the hypotheses, the data analysis is used in this research to assess the relationship between the variables that have been presented (Cooper & Schindler, 2014).

The data from the self-administered survey was downloaded into SPSS and Microsoft Excel. The Excel download was used for the initial cleaning process. The data cleaning process involved removing inconsistent data and invalid data (Willes, 2018). Incomplete data was removed as some respondents did not complete the survey in full. Once this process was completed, the data was loaded onto SPSS which stands for Statistical Package for the Social Sciences. This is a programme that was developed by IBM (Field, 2018). The programme allows one to perform data entry, analysis and create tables and graphs (Field, 2018). The data entry into SPSS was done through a simple export from Excel.

The research instrument had no time limit. It also saved data even though the respondents might not have completed the survey in full. This required the researcher to remove the incomplete data which is deemed not to be valid for the study. What this process of data cleaning entailed was, identifying missing values (removing the data

with missing values), screening for data errors, coding (including coding of reverse questions). These steps are described in detail in the steps taken to clean the values from the 84 responses.

3.7.1 Data Screening

Data screening is about checking data for errors, in layman terms, it is the quality control process in data management (Field, 2018). This process is about identifying potential data entry errors and gaps (Field, 2018). This process is carried out to ensure that the data was usable. The missing data that was picked up from the screening process reduced the sample size and the researcher had to go back and gather more data. Missing data compromises the sample size which is available for analysis (Abdulwahab et al., 2011). This had to be done twice in this study as the initial screening resulted in a lower valid sample size.

- Missing Data: Missing data renders the survey defective. This data threatens the validity of the research (Groenwold & Dekkers, 2020). Missing data is not uncommon in survey research, it occurs in almost every study (Groenwold & Dekkers, 2020). This can occur due to respondents skipping certain question due to not being able to answer the question or simply missing the question. One of the guiding principles for the study was not to interfere with the data, therefore responses that had missing data were deleted. There was an option to enter plausible estimates to make the data set complete (de Leeuw & Hox, 2011). This was not explored because it could have created bias in the study. Using estimates would have also strengthened the position expressed in the complete data (de Leeuw & Hox, 2011).
- Initially, the study had 60 respondents, and after clearing out missing values, only 30 were valid. The researcher allowed the survey to run for another week. This resulted in the study obtaining 84 responses in total. The data was cleaned, and 40 responses were deemed to be completed in full.
- Missing value analysis was conducted on SPSS. The research did not have numeric variables and therefore there was no need to run a system missing value test. The researcher ran a user missing values test. This was done by

running a frequency distribution. This merely validated that the data was clean, and no further data cleaning was necessary.

After the data was screened and the missing values were removed, several statistical techniques were applied to analyse the data to test the hypothesis. The following section of the study provides a detailed description of these techniques.

3.7.2 Descriptive Statistics

Descriptive statistics were used to summarise the data, this is because they help summarise the data in an organised and understandable manner. Descriptive statistics can summarise data and provide a clear description of the sample (Cooper & Schindler, 2014). These were used to describe the relationship between the variables within the sample. The use of descriptive statistics results in the data being summarised in a simple format (Kaur et al., 2018). The format that was adopted to summarise the data are tables, graphs and interpretation which describes the instances.

The descriptive statistics were utilised in this research to understand common elements that make clustered e-commerce a location choice for home-based businesses and factors that influence trust and economic factors.

The descriptive statistics helped to assess frequencies for each of the valid responses. These frequency measures look at the number of times a value arises in the data (Kaur et al, 2018). In this study, the frequency is shown as percentages and these descriptive statistics helped with understanding the mean, and standard deviation from the sample.

3.7.3 Correlation Analysis

Correlation is about assessing the relationship between two or more scores or two variables (Arkkelin, 2014). This is a commonly used approach in quantitative research because it is used to measure the intensity of the relationship between the scores or

variables (Wegner, 2016). The correlation can either be positive (+) or negative (-) or non-existent (0) (Wegner, 2016). A positive correlation is seen when two variables move in the same direction and the coefficient is greater than 0 (Wegner, 2016). The values must either decrease or increase together for a correlation to be positive. A negative correlation on the other hand means that the variables are not aligned and are moving in opposite directions (Wegner, 2016).

The Pearson coefficient is one of the most popular methods of assessing correlation. When used in calculating sample data, it is represented by the symbol r (Arkkelin, 2014). It is used to determine the direction and degree of affinity in two continuous variables (Arkkelin, 2014). The Pearson correlation is normally used for data that follows a bivariate normal distribution (Schober et al., 2018). This correlation analysis requires that the data be linearly related.

This study uses a correlation coefficient to test the strength and direction of the relationship between Elements (IV) influencing location choice (DV), Levels of Trust, and Economic Factors.

3.7.4 Regression Analysis

Regression analysis is used to predict values of a dependent variable from one or more independent variables (Field, 2018). Whether it is called multiple regression or simple regression, these are still terms relating to the linear model (Field, 2018). Regression analysis as a linear model may include as many independent variables as the researcher wants (Field, 2018). In simple terms, regression allows the researcher to gather conclusions about the relationship between variables. This allows the researcher to determine if there is a significant relationship between independent and dependent variables (Wegner, 2016).

Regression analysis differs from correlation analysis since correlation analysis identifies the strength of the relationship between variables (Wegner, 2016). Regression analysis is used in cases where a prediction needs to be made (Wegner, 2016). The regression analysis is about finding the equation that fits a straight line to

the scatter points (Wegner, 2016). It is the scatter plot that graphically shows the relationship between the independent and dependent variable (Wegner, 2016).

3.8 Validity and Reliability of Research

Validity and Reliability are measures use to establish the quality of the research (Cooper & Schindler, 2014). This is influenced by many factors including the research design. Cooper and Schindler (2014) simplify the explanation of the concept of validity and reliability using an analogy of an arch bow. “High reliability means that repeated arrows shot from the same bow would hit the target in essentially the same place” (Cooper & Schindler, 2014, p. 259). In the same analogy, scattered arrows would indicate low reliability (Cooper & Schindler, 2014). So, Reliability is about the consistency and stability of results.

Validity on the other hand explains how the collected data comprises the area of research (Taherdoost, 2016). It is about ensuring that the measurement scale measured what was intended to be measured. It is concerned with the meaning of the measurement scale (Cooper & Schindler, 2014).

3.8.1 Validity

As mentioned, validity is focused on the interpretation and meaning of the measurement scale. This can involve several approaches and does not only take one form, but it also has many sub-types (Taherdoost, 2016). The two major forms of validity are internal and external validity (Cooper & Schindler, 2014). External validity is about the data’s ability to be generalised, internal validity is limited to discussions of the research instrument measuring what is supposed to be measured (Cooper & Schindler, 2014).

Internal validity includes the following.

- Content Validity: This validity check is best applied while the instrument is being developed (Taherdoost, 2016). It is about the evaluation of a new survey

instrument. This was applied in the research by having the supervisor evaluate the instrument. Content validity is applied by having an expert evaluate the instrument (Taherdoost, 2016).

- Criterion-related Validity: This type of validity has two parts which are concurrent validity and predictive validity. Both types of criterion validity are concerned with the degree to which a measure is related to an outcome (Taherdoost, 2016). Concurrent validity looks at whether the results of a test correspond to those of a previously established measurement which assessed the same construct (Taherdoost, 2016).

- Predictive validity looks at the ability of a tool to predict something that it should theoretically be able to predict (Cooper & Schindler, 2014). This type of validity test is time consuming and requires a large sample (Cooper & Schindler, 2014).

- Construct validity: This type of validity test has two components, convergent and discriminant validity (Taherdoost, 2016). Convergent validity is measured by assessing the degree to which scores on one scale correlate with scores on a different scale which was primarily designed to assess the same construct (Cooper & Schindler, 2014). Discriminant validity is well described by the word discriminant, it is about the extent to which latent variable A discriminates from other latent variables (Taherdoost, 2016). A factor analysis is done using principal axis analysis with promax rotation using the Kaiser Normalisation Rotation Method to verify this construct validity (Taherdoost, 2016).

All of these are validity estimates and each of these has a method. Content validity is based on judgement and is done to assess a new instrument. The method applied to estimate criterion-related validity is correlation (Cooper & Schindler, 2014).

To improve internal validity, the researcher took the following measures.

- A sample of respondents who identified as HBB owners, and managers was targeted.
- Questions were asked in a manner that reduced confusion.

- Factors for hypothesis testing were identified through an EFA analysis using the Promax with Kaiser Normalisation Rotation Method.

3.8.2 Reliability

Consistent to what was previously mentioned, reliability is about the extent to which the measurement provides consistent and stable results (Cooper & Schindler, 2014). Field (2018) states that reliability is based on the view that results should be consistent. The Cronbach Alpha coefficient is the most popular internal measurement of reliability testing, especially when Likert Scales have been applied in the instrument (Taherdoost, 2016).

The Cronbach's Alpha looks at the degree to which the items in the instrument are consistent and reflect the same constructs (Cooper & Schindler, 2014). The use of the Cronbach's Alpha in research is routine (Taber, 2018). This could be due to the fact that conducting a reliability test is mandatory (Taherdoost, 2016).

In Cronbach's Alpha, a score greater than 0.7 is interpreted as presenting very good reliability (Field, 2017). 0.6-0.7 score is considered to be satisfactory or acceptable. There are conflicting opinions on this as some authors believe that in the early stages of research, a value as low as 0.5 will be acceptable (Field, 2017). Some believe that for a pilot study, reliability should 0.60 or above (Taherdoost, 2016).

3.9 Study Limitations

There is a common consensus that all studies have limitations, and this is not necessarily a reflection on the researcher's abilities (Theofanidis & Fountouki, 2018). These usually affect the design and outcome of the study. These limitations can be deemed to be important as they assist the reader to determine the validity of the study (Cooper & Schindler, 2014). Researching hidden populations further makes this

limitation a reality. This is because the population size is unknown. This section looks at the limitations that have been identified in this study.

- Since the survey was self-administered, respondents could not reach out to the researcher if they did not understand a question.

- Item non-responses were found, which rendered some of the answers incomplete.

- Some respondents chose to ignore emails or WhatsApp messages because they had no prior reference with the researcher.

- The data collection commenced over the festive season (December), and this meant that some of the potential respondents were not reachable.

- The population sampled is hidden and thus the sample size cannot be equated to a population size.

- The language used in the questions could have not been well understood as this is an emerging concept.

3.10 Ethical Considerations

Ethics is ingrained in the ancient Greek philosophical inquiry of moral life (Fouka & Mantzorou, 2011). Ethics refers to a system of principles that can influence considerations about choice and action. Human research had been conducted before the 18th century; however, ethical considerations drew the interests of society after the 1940s (Fouka & Mantzorou, 2011).

This research was conducted according to the ethical considerations of research. The researcher adhered to the ethical considerations that need to be observed by firstly ensuring that there was informed consent. Informed consent means that a person

knowingly, voluntarily, intelligently gives his consent or her consent (Armiger, 1997). Besides getting permission or consent from the participants, the researcher ensured that permission was granted by the University. The participants consented to complete the survey. Anonymity and confidentiality were maintained, and no personal data was collected. This is deemed to be linked to the respect of the dignity of those participating (Fouka & Mantzorou, 2011). The researcher ensured that the participants are aware that the study is voluntary and that there will be no compensation for participating in the research.

3.11 Chapter Summary

This chapter has explained the research methodology that was adopted in the research to investigate the hypotheses identified in chapter two. The research design was developed to collect data required for testing the relationships between trust, economic factors, and elements of marketplace e-commerce.

The instruments used Likert Scale items. These were found in the self-administered survey which was distributed to sample of HBB owners/managers for data collection purposes.

This chapter gave an overview of the statistical techniques utilised in the data analysis, validity, and reliability process. The chapter provided details of the limitations of the study and ethical considerations that were adopted. The following chapter shows the results gained from having followed these processes.

CHAPTER 4 – PRESENTATION OF RESULTS

4.1 Introduction

This chapter shows the results of the collected data and inferential statistics. This analysis is consistent with the research methodology as presented in chapter three. The chapter starts with the presentation of the demographic characteristics, this is then followed by descriptive statistics. Exploratory factor analysis EFA) and validity and reliability testing of the measurement scales is presented in this chapter.

The chapter concludes with the results from the hypotheses test findings.
The study was about looking at the factors that influence the location choice of home-based businesses that are on marketplace e-commerce platforms. The study hypothesised that trust, economic factors, and e-commerce elements have an influence on the location choice of home-based businesses that trade on clustered e-commerce which has been termed clustered e-commerce in this study.

4.2 Demographic Profile of Respondents

The demographic profile of the respondents is presented in the study. The respondents are HBB owners and/or managers in South Africa. To measure this, the respondents were asked via a self-administered survey: Age, Gender, Race and Level of Education. The race statistics were deemed to not bare any significant input to this study and this data was discarded.

In line with the characteristics of home-based businesses, the following information was collected in the self-administered survey: Position in business, number of years in business, and which marketplace e-commerce platform do they trade on.

4.2.1 Gender

The gender characteristics in the sample show that 50% of the respondents were female while 47.5% were male. 2.5% of the respondents chose not to disclose or identified as others.

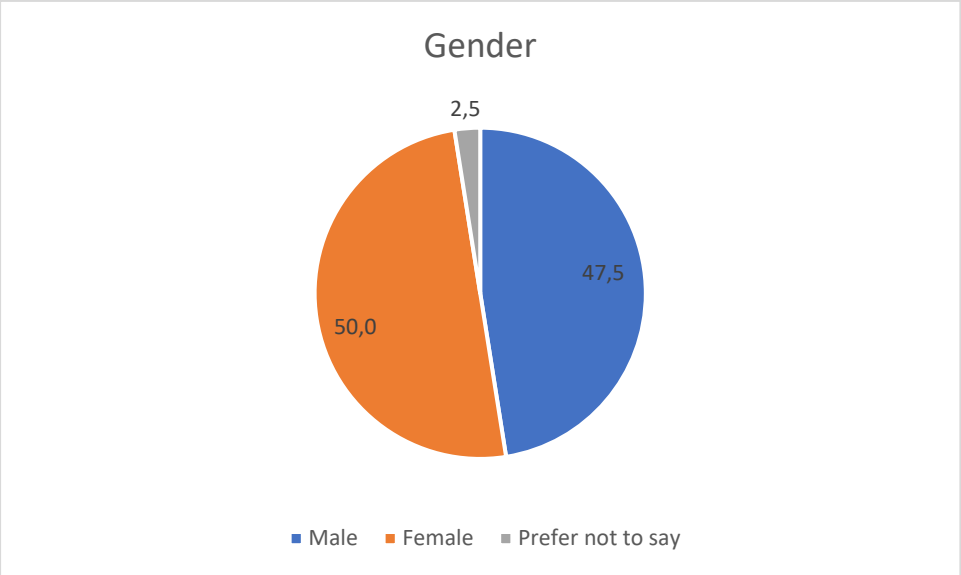


Figure 4.1: Primary data collected based on gender participation

4.2.2 Age

Figure 4.2 show that 50% of the respondents were aged between 25-35 years. This age group formed the majority of the respondents. The second highest age group of respondents is 36-45. 24-year-old or less and 46 to 55 age groups both had an equal percentage of 7.5%

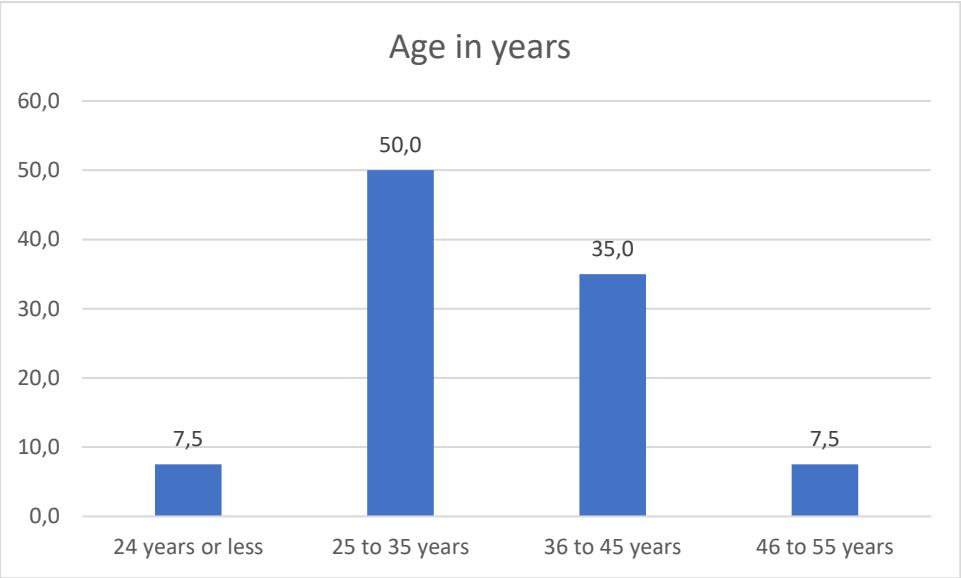


Figure 4.2 Primary data participant age category

4.2.3 Level of Education

Figure 4.3 shows that there is an equal proportion of respondents with NQF level 8 and NQF level 7 (Honours Degree or Postgraduate Diploma) level 7 (Bachelor Degree, BTech Degree or Advanced Diploma). Ten percent (10%) of the respondents have a Master degree. In total, 72.5% of the respondents have a tertiary qualification.

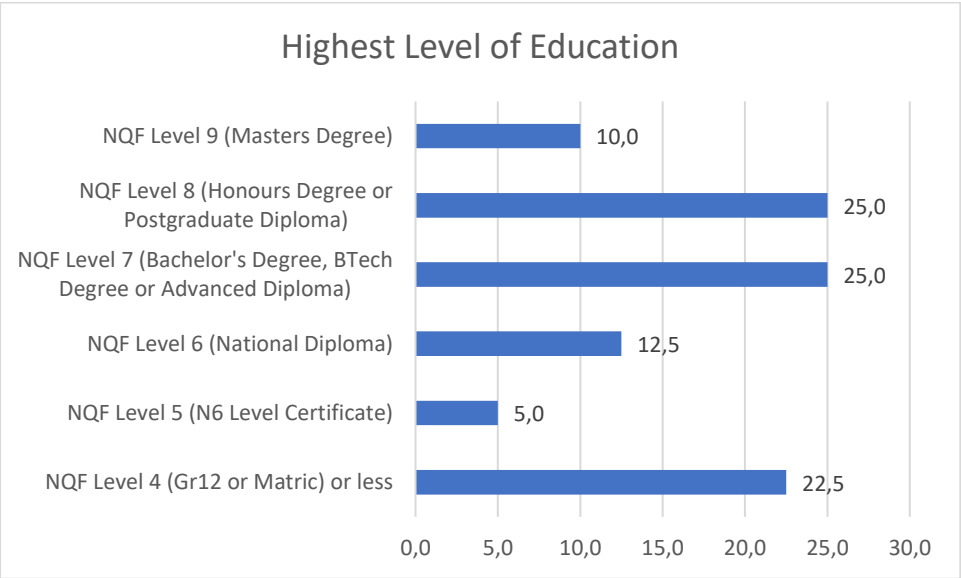


Figure 4.3 Primary Data Participants' highest level of education

4.2.4 Position held in business

The majority of respondents (75 %) were Business Owners or Directors, while Senior Managers and Managers or less shared an equal proportion of 25%.

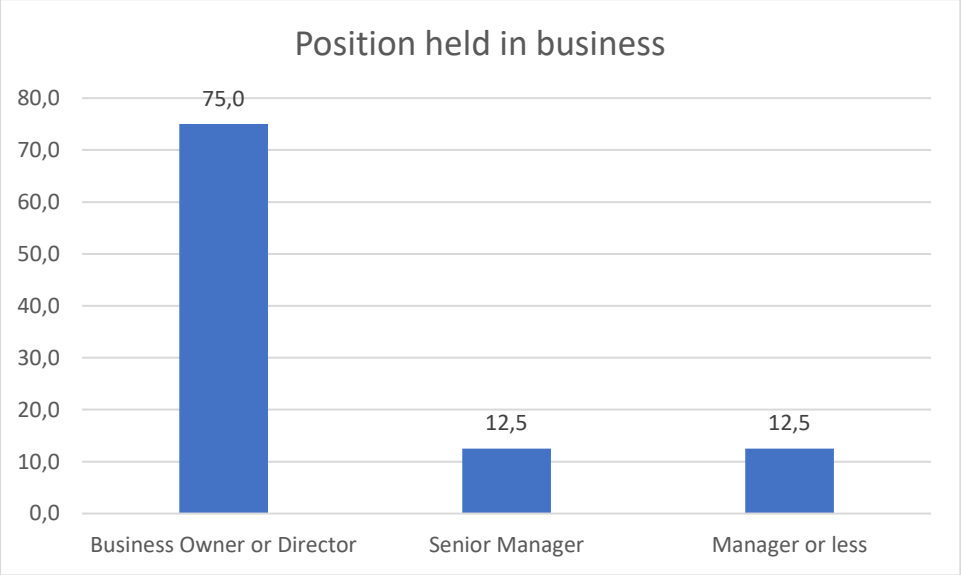


Figure 4.4 Primary Data participant's position held in business

4.2.5 Number of years in business

65% of the surveyed respondents confirmed that they had been in business for five years or less. Most of these businesses were two years or less. 22.5% of the respondents selected the option confirming that they had been in business for six to 10 years. Only 12.5 % of the respondents had been in business for 11 to 20 years. These statistics are unpacked in detail and linked to the literature in chapter five of the study.

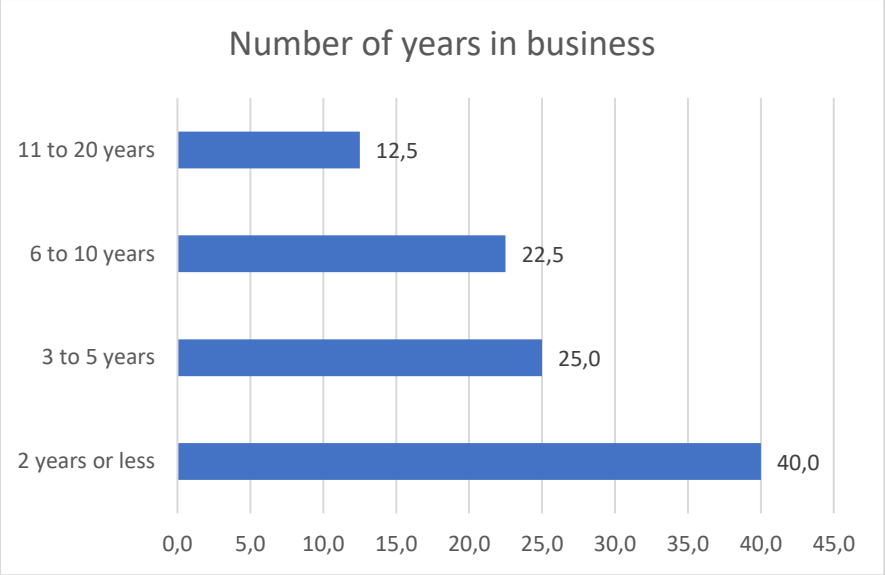


Figure 4.5 Primary Data: Participant's duration in the business

4.2.6 Number of years in business

Of the respondents surveyed, 22.5% confirmed that they were using multiple marketplace e-commerce platforms. 22.5% confirmed that they were using "other" marketplace e-commerce platforms. The "other" included emerging platforms, such as Hellopretty and local community-based platforms. Instagram and Facebook Marketplace each had 7.5%. Takealot and Uber Eats each had 17.5% of respondents confirming that they were using these platforms.

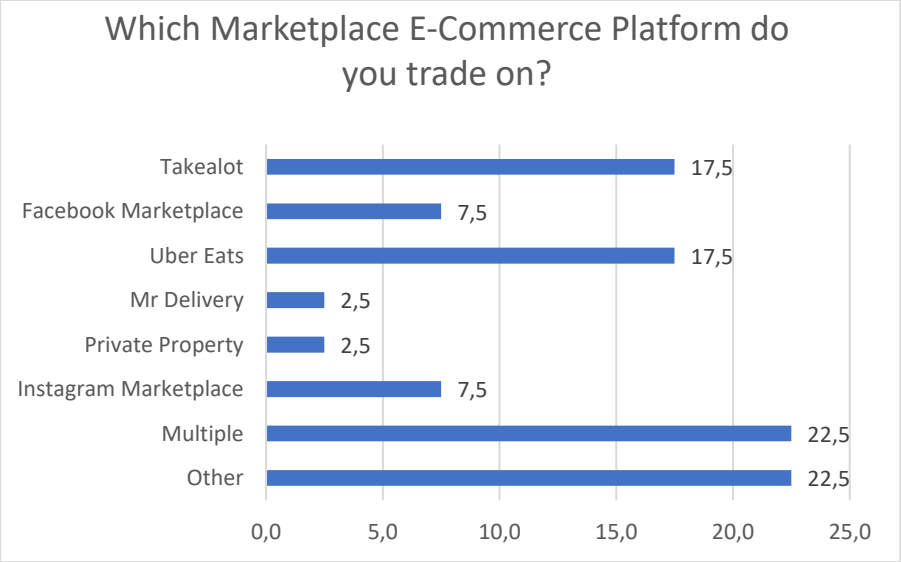


Figure 4.6 Primary Data; Market place e-Commerce platforms commonly used

4.3 Descriptive Statistics

Descriptive statistics have been used in the study to summarise the dataset and its measures. These have helped to summarise the data in an organised manner by describing the relationship between the variables (Kaur et al., 2018). The statistics describe the following, marketplace e-commerce elements that make the marketplace a location choice for home-based businesses, factors that influence trust levels on marketplace e-commerce, and economic factors that make marketplace e-commerce a location choice.

4.3.1 Marketplace E-commerce Elements

Eight questions were asked pertaining to the elements that make marketplace e-commerce a location choice for home-based businesses.

Table 4.1 Elements of Marketplace e-commerce

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean	Standard Deviation
The quick onboarding of sellers made it easy for my business to set up on e-commerce	5.0	2.5	7.5	37.5	47.5	4.2	1.0
The payment systems offered by my e-commerce partner make it a preferred trading location	2.5	2.5	10.0	37.5	47.5	4.3	0.9
The ability to social connect through my e-commerce partner make it a preferred location choice for my business	0.0	7.5	32.5	27.5	32.5	3.9	1.0

The mobile friendliness of my e-commerce partner make it a preferred location to trade	5.0	0.0	5.0	40.0	50.0	4.3	1.0
The admin interface of my e-commerce partner make it a preferred location to trade	0.0	2.5	5.0	55.0	37.5	4.3	0.7
My e-commerce partner has enabled me to trade across geographic boundaries	2.5	5.0	2.5	37.5	52.5	4.3	0.9
The location of my HBB is based on access to marketplace e-commerce	0.0	20.0	12.5	35.0	32.5	3.8	1.1
The ability to social connect through my e-commerce partner make it a preferred location choice for my business	0.0	2.5	30.0	47.5	20.0	3.9	0.8

The results in table 4.1 indicate the elements of marketplace e-commerce that make it a preferred location choice for home-based businesses, most of the responses leaned towards the positive end of the scale, with a mean for most of these questions ranging from 4.2 to 4.3. The questions with the lowest mean were pertaining to the ability to socially connect. This measurement attained a mean of 3.9. This question was asked twice in the instrument and the mean was consistent except for the second standard deviation which was at 0.8 compared to the first one at 1.0.

Since the question on the “ability to socially connect” was asked twice, it was noted that the second question saw 47.5 % of the respondents stating that they agree, but when this question was asked the first time, 27.5% of the respondents agreed with it.

The question on “mobile friendliness of my e-commerce partner makes it a preferred location to trade” and the question “My e-commerce partner has enabled me to trade across geographic boundaries”, received the most positive responses. The latter attained a mean of 4.3.

4.3.2 Trust

Table 4.2 Responses for the trust questions

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean	Standard Deviation
The data protection measures taken by my e-commerce partner have influenced my trust levels on e-commerce	0.0	12.5	12.5	40.0	35.0	4.0	1.0
As a HBB I trust that my e-commerce partner will provide me with the same exposure as a large business	5.0	2.5	15.0	40.0	37.5	4.0	1.0
The growth of marketplace e-commerce in South Africa has influenced me to trust the technology as a trading platform	0.0	2.5	7.5	50.0	40.0	4.3	0.7
The ease of use is what makes me trust my e-commerce partner	2.5	0.0	5.0	45.0	47.5	4.4	0.8
I trust my e-commerce partner	0.0	0.0	12.5	42.5	45.0	4.3	0.7
The growth of marketplace e-commerce has made me doubt the trading location	40.0	40.0	10.0	7.5	2.5	1.9	1.0
I rely solely on my e-commerce partner to trade	20.0	42.5	7.5	22.5	7.5	2.6	1.3

The analytical information received from my e-commerce partner is trustworthy	5.0	5.0	15.0	40.0	35.0	4.0	1.1
The ability of my e-commerce partner to protect my data has influenced my trust levels	0.0	5.0	12.5	47.5	35.0	4.1	0.8

Table 4.2 shows the responses for the trust questions that respondents leaned toward the positive side of the scale. The mean for all the questions ranges from 1.9 to 4.4. 40% of the responses disagreed with the statement that they relied solely on their e-commerce partner to trade. The reverse statement which stated that “The growth of marketplace e-commerce has made me doubt the trading location” saw the majority of the respondents leaning toward the negative side of the scale. It is these two questions that had the lowest mean.

4.3.3 Economic Factors

Table 4.3 Economic factors

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean	Standard Deviation
My decision to trade on marketplace e-commerce was influenced by the cost to set up	5.0	15.0	2.5	32.5	45.0	4.0	1.3
My decision to trade on e-commerce was influenced by labour costs	5.0	27.5	7.5	25.0	35.0	3.6	1.4

My decision to trade on marketplace e-commerce was driven by the need to use fewer resources	2.5	10.0	10.0	25.0	52.5	4.2	1.1
My decision to trade on marketplace e-commerce was driven by the need to increase sales	0.0	2.5	0.0	25.0	72.5	4.7	0.6
My decision to trade on marketplace e-commerce was driven by real estate costs	10.0	12.5	17.5	22.5	37.5	3.7	1.4
My decision to trade on marketplace e-commerce was driven by the need to reduce costs	2.5	12.5	12.5	32.5	40.0	4.0	1.1
My decision to trade on marketplace e-commerce was driven by the need to reduce regulation costs	0.0	17.5	40.0	17.5	25.0	3.5	1.1
My decision to trade on marketplace e-commerce was driven by the need to reduce the cost of shipping goods to the market.	5.0	25.0	22.5	22.5	25.0	3.4	1.3
My E-commerce partner has helped me reduce my operating costs	0.0	15.0	12.5	35.0	37.5	4.0	1.1
My E-commerce partner has helped me reduce my cash collection costs	2.5	17.5	15.0	40.0	25.0	3.7	1.1
My E-Commerce partner has helped me reduce my delivery costs	2.5	20.0	10.0	35.0	32.5	3.8	1.2
My E-commerce partner has helped me access a broader market	0.0	2.5	2.5	27.5	67.5	4.6	0.7
The payment systems offered by my e-commerce partner make it a preferred trading location	2.5	2.5	10.0	45.0	40.0	4.2	0.9
Trading on Marketplace e-commerce makes me feel that I am part of a cluster	0.0	5.0	25.0	45.0	25.0	3.9	0.8

Table 4.3 economic factors indicated that 45% (majority) of the respondents agreed that trading on marketplace e-commerce makes them feel that they are part of a cluster. The mean for this measure is 3.9 and standard deviation is 0.8. 72.5% of the respondents agreed that the decision to trade on marketplace e-commerce was driven by the need to increase sales. 67.5% of the respondents strongly agreed their e-commerce partner has helped them access a broader market. The need to reduce the cost of shipping goods as an economic factor has a mean of 3.4 with most of the respondents leaning more towards the negative end of the scale.

The mean average is 3.9 for this table. The average for the standard deviation is 1.078.

4.4 Validity of measurement scales

The following section looks at the validity of measurement scales which were applied in this study. Validity looks at whether an instrument measured what it was designed to measure (Field, 2018). It is about how accurate a method measures what it is meant to measure.

Each of the methods that were applied is explained in detail. The section looks at the KMO and Bartlett's Test, total variance is explained, and lastly, the section looks at validity by assessing the pattern matrix.

4.4.1. KMO and Bartlett's Test

The Kaiser-Meyer-Olkin (KMO) measures sampling adequacy (Field, 2018). The KMO indicates whether a sample is adequate for additional analysis (Field, 2018). KMO statistics vary between 0 and 1 with the 0-value indicating that the sum of the partial correlation is large compared to the sum of correlations (Field, 2018). A value that is close to 1 show that the patterns of correlation are compact (Field, 2018).

The KMO values can be interpreted in the following way.

1 to 0.9 is very good, 0.8 to 0.9 is good, 0.7 to 0.8 is medium, 0.6 to 0.7 is reasonable, 0.5 to 0.6 is acceptable with any value less than 0.5 being unacceptable (Reddy & Kulshrestha, 2019).

The Bartlett's Test is used to assess the extent to which items belong together (Reddy & Kulshrestha, 2019). It basically looks at the relationship strength between the variables.

Table 4.4 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.661
Bartlett's Test of Sphericity	Approx. Chi-Square	315.087
	df	105
	Sig.	0.000

Table 4.4 presents the KMO and Bartlett's test results for the three constructs that are the focus of this study. Firstly, the KMO score of 0.661 indicates reasonable sampling adequacy. Furthermore, Bartlett's test for sphericity results (Approx. Chi-square = 315.087, df = 105, $p < 0.05$) indicate that the underlying correlations between items are significantly sufficient for conducting a factor analysis.

4.4.2 Total Variance Explained

The following tables present the total variance results for each construct. The columns under the initial eigenvalues and extraction sums of squared loading show eigenvalues and variance for each statement, which helps to identify and classify each significant factor.

Table 4.5 Total variance explained results

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.078	27.187	27.187	3.661	24.404	24.404	3.361
2	3.643	24.286	51.472	3.242	21.612	46.016	2.810
3	1.826	12.174	63.646	1.397	9.311	55.327	2.767
4	1.091	7.271	70.917				
5	0.837	5.579	76.497				
6	0.714	4.757	81.254				
7	0.655	4.370	85.624				
8	0.586	3.909	89.532				
9	0.394	2.627	92.160				
10	0.346	2.306	94.466				
11	0.305	2.032	96.498				
12	0.183	1.221	97.719				
13	0.129	0.858	98.577				
14	0.119	0.791	99.367				
15	0.095	0.633	100.000				

Extraction Method: Principal Axis Factoring.

Based on the table above (Table 4.5 SPSS variance results), SPSS extracted three factors that explained 55.33% of the variance. This is acceptable as the variance explained by all the statements loaded onto the three factors and were representative of the highest proportion of variance explained overall.

4.4.3 Pattern Matrix

The pattern matrix results highlight the extent to which individual statements loaded on their respective factors using principal axis exploratory factor analysis using the Promax with Kaiser Normalisation Rotation Method.

Table 4.6 Source: Pattern Matrix for factor loading

Constructs		Factor		
		1	2	3
Marketplace e-commerce Elements	The ability to socially connect through my e-commerce partner make it a preferred location choice for my business	0.461		
	The mobile friendliness of my e-commerce partner make it a preferred location to trade	0.737		
	The admin interface of my e-commerce partner make it a preferred location to trade	0.671		
	My e-commerce partner has enabled me to trade across geographic boundaries	0.842		
Trust Factors	The data protection measures taken by my e-commerce partner have influenced my trust levels on e-commerce		0.578	
	The growth of marketplace e-commerce in South Africa has influenced me to trust the technology as a trading platform		0.636	
	The ease of use is what makes me trust my e-commerce partner		0.779	
	I trust my e-commerce partner		0.794	
	The ability of my e-commerce partner to protect my data has influenced my trust levels		0.226	
Economic Factors	My decision to trade on marketplace e-commerce was influenced by the cost to set up			0.747
	My decision to trade on e-commerce was influenced by labour costs			0.595
	My decision to trade on marketplace e-commerce was driven by the need to use fewer resources			0.795
	My decision to trade on marketplace e-commerce was driven by the need to reduce costs			0.865
	My decision to trade on marketplace e-commerce was driven by the need to reduce regulation costs			0.610
	Trading on Marketplace e-commerce makes me feel that I am part of a cluster			0.632

Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalisation. Rotation converged in four iterations.

Table 4.6 highlights how the factor loadings for each of the three constructs loaded onto their respective constructs. Overall, there were more than the minimum of three items loading per factor (> 0.30) demonstrating acceptable levels of construct validity.

4.5 Reliability of Measurement Scales

Cronbach's alpha coefficient was utilised in this research to examine the internal consistency of the questions contained in the sample questionnaire (HBB owners and managers). According to Taber (2018), Cronbach Alpha coefficients vary from 0.00 and 1.0; and the intensity and degree of internal consistency of alpha coefficients are classified accordingly.

4.5.1 Reliability - Marketplace e-commerce elements

As mentioned in the introduction, reliability is about the extent to which the measurement provides consistent and stable results (Cooper & Schindler, 2014). Field (2018) states that reliability is based on the view that results should be consistent.

Using the Cronbach's Alpha, the study assessed the reliability of the constructs used for marketplace e-commerce elements. This is presented in table 4.7 below.

Table 4.7 Primary Data marketplace e-commerce elements

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.740	0.753	4

Table 4.7 highlights that the marketplace e-commerce elements construct demonstrated good levels of reliability as the Cronbach Alpha coefficient (0.740) was greater than 0.7.

4.5.2 Reliability – Trust

This section looks at the reliability of the constructs used to measure trust. The reliability of the constructs is measured using the Cronbach Alpha coefficient.

Table 4.8 Primary Data: reliability as the Cronbach Alpha coefficient for trust elements

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.799	0.808	5

Table 4.8 highlights that the trust construct demonstrated acceptable levels of reliability as the Cronbach Alpha coefficient (0.799) was greater than 0.7.

4.5.3 Reliability - Economic Factors

Table 4.9 Primary Data Cronbach Alpha coefficient economic factors

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.849	0.853	6

Table 4.9 highlights that the economic factors construct demonstrated excellent levels of reliability as the Cronbach Alpha coefficient (0.849) was greater than 0.8.

4.6 Correlation Analysis

For the purposes of this research, the measure of the linear relationship Trust and marketplace e-commerce elements, as well as economic factors and marketplace e-commerce elements was tested. The Pearson correlation coefficient is a number between -0.00 to +1.00 and indicates the degree and magnitude of the linear relationship between specific constructs.

Table 4.10 Primary Data linear relationships between Trust and marketplace e-commerce elements

		Common Elements that make Ecommerce Location choice	Trust Factors	Economic Factors
Pearson Correlation	Common Elements that make Ecommerce Location choice	1.000	0.397	0.115
	Trust Factors	0.397	1.000	0.098
	Economic Factors	0.115	0.098	1.000
Sig. (1-tailed)	Common Elements that make Ecommerce Location choice		0.006	0.239
	Trust Factors	0.006		0.273
	Economic Factors	0.239	0.273	
N	Common Elements that make Ecommerce Location choice	40	40	40
	Trust Factors	40	40	40
	Economic Factors	40	40	40

Table 4.10 highlights those significant positive linear relationships exist between relationship Trust and marketplace e-commerce elements ($r = 0.397$, p-value < 0.01); however, no correlation was found between economic factors and marketplace e-commerce elements ($r = 0.115$, p-value > 0.05).

4.7 Regression Analysis

After the type of relationships between variables was established using correlation analysis, multiple regression was used to examine the influence of innovation on the relationship between the independent variables (trust, economic factors) on marketplace e-commerce elements for location choice.

Table 4.11 Regression analysis Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.404[a]	0.164	0.118	0.63289	2.196

a. Predictors: (Constant), Economic Factors, Trust Factors

b. Dependent Variable: Common Elements that make Ecommerce Location choice

Table 4.12 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.898	2	1.449	3.618	.037[b]
	Residual	14.820	37	0.401		
	Total	17.719	39			

a. Dependent Variable: Common Elements that make Marketplace e-commerce a location choice

b. Predictors: (Constant), Economic Factors, Trust Factors

A significant regression equation was found F = 3.618, p <0.01) with an R^2 of 0.164. The adjusted R-square in the results indicates that both trust and economic factors explains 11.8% of the variability of marketplace e-commerce elements for location choice.

4.8 Hypotheses testing

4.8.1 Hypothesis one results

The descriptive statistics showed the following results in support of the first hypothesis.

- Elements of marketplace e-commerce that make it a preferred location choice for home-based businesses, most of the responses leaned towards the positive end of the scale
- Responses for the Trust questions show that the respondents leaned toward the positive side of the scale.
- 45% (majority) of the respondents agreed that trading on marketplace e-commerce makes them feel that they are part of a cluster.

4.8.2 Hypothesis two results

Table 4.13 Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.131	0.809		2.634	0.012	0.492	3.770
	Trust Factors	0.433	0.168	0.390	2.578	0.014	0.093	0.774
	Economic Factors	0.060	0.118	0.077	0.509	0.614	-0.180	0.300

a. Dependent Variable: Common Elements that make marketplace e-commerce a Location choice

Only the regression coefficient of trust is significant (β = 0.390), with a p-value of less than 0.001. The null hypothesis is, therefore, rejected at the 1% level of significance and provides support for the second hypothesis.

4.8.3 Hypothesis three results

The third hypothesis regarding the influence of economic factors (β = 0.077, p >0.05) on the location choice of home-based businesses that trade on marketplace e-commerce, no significant relationship was found between the economic factors and the common elements of location choice of HBB in South Africa (β = 0.077, p >0.05).

4.9 Chapter Summary

The data was collected from 83 respondents, and after screening and cleaning, a data analysis was conducted based on 40 respondents. A frequency analysis was done to understand the demographic profile, as well as years in business. This frequency analysis showed that 50% of the respondents were female while 47.5% were male, the remainder chose not to disclose or identified as other.

72.5% of the respondents have a tertiary education. 75% of the respondents were the actual business owners or directors. Another key finding from the frequency analysis was that 40% of these businesses were two years old or less and this formed the majority.

The study's hypothesis testing results are summarised in Table 4.14.

Table 4.14 Summary of hypothesis test results

	Hypothesis	Supported
H1	Marketplace e-commerce common elements influence the location choice of home-based businesses in South Africa	Yes
H2	The ability to trust marketplace e-commerce platforms influences the location choice of home-based businesses in South Africa	Yes
H3	Economic factors influence the location choice of homebased businesses that trade on marketplace e-commerce	No

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

The study carried out an investigation of the impact that clustered (marketplace) e-commerce has on the location choice of home-based businesses in South Africa. The study assessed which functions of clustered e-commerce are most likely to influence the location decision of home-based businesses. Emerging from the results presented in the previous chapter (chapter four), this chapter discusses the following findings, demographic profile of the respondents, characteristics of the respondents, and results from the hypotheses testing.

5.2 Demographic profile

Emerging from chapter four, the sample's demographic profile is summarised as follows: The majority, 50% of the respondents, identified themselves as female while 46.5% identified themselves as male. 2.5% of the respondents chose not to disclose or identified as other. The highest (50%) age group found in the sample was 25-35 years, and this was followed by 36–45-year-olds (35%). 72.5% of the respondents have a tertiary qualification.

5.2.1 Gender

In line with what was discussed, home-based businesses are predominately run by women (Petersen & Charman, 2018). This is a common characteristic that is found in both formal and informal home-based businesses. More (50%) females than males (47.5%) took part in the study. Nkeiru (2012) also found that more females than males run home-based businesses.

In a study by Urban and Msimango-Galawe (2021), it was found that women are still found to concentrate on activities that are in line with their roles in the domestic space. This is driven by the need to balance work and family roles (Urban & Msimango-Galawe, 2021).

This trend is not unique to South Africa; in Europe 39% of self-employed women run home-based businesses (Rodrı´guez-Modron˜o, 2021). Besides operating from the home, Stander (2015) also found that more South African women were using the internet to earn an income.

5.2.2 Age

The study found that 25–35-year-olds represented the largest share of respondents with a total of 50%. This was followed by the age group 36–45-year-olds (35%). This finding is in line with research that has focused on e-commerce user profiles in Africa by age. According to Statista (2021), a research company, it was found that 25 to 34-year old people represented the highest number of e-commerce users (Statista, 2021). The research company also found that 35–44 year-olds were the second highest level of uses with 18–24-year-olds sharing an equal proportion.

E-commerce tends to attract more younger users, 25–35-year-olds are very familiar with high technology as they tend to be more computer literate than their older counterparts (Ayob, 2021).

5.2.3 Education

Mkhosi (2017), as referenced in the literature review section, agrees that education has a critical function in marketplace e-commerce adoption. 72.5 % of the respondents to the study were found to have a tertiary education. Venter and Urban (2015) concede in their study that there is a positive link between education and entrepreneurship. Entrepreneurs are likely to have higher levels of education (Venter, 2015).

It is also noted from the results that 22.5% of the respondents have matriculation or less. Technology education is an area of education that is mostly found in urban

schools in South Africa (Dick et al., 2016). This is due to the infrastructure divide that is found between urban and rural schools. Despite this, there has been a focus on computer literacy and technology education in South African schools (Dick et al., 2016). Included in the curriculum in South African schools is Computer Applications Technology which is aimed at equipping learners with the skills to use computer technology (Department of Basic Education: Republic of South Africa, 2011). This means that a number of people that have only completed matriculation are able to use a computer and the various applications found in the technology.

5.2.4 Position held in Business

75% of the respondents indicated that they are the owner or director in the business. Smit and Donaldson (2011) concur with the view that most home-based businesses are owner operated. The policy on land use as described in the literature review of this study limits home-based businesses from employing people. The regulations of the City of Johannesburg on home-based businesses are an example of the legislative limits faced by home-based businesses. The city limits the number of people that can be taken up by the business to only two people, other than the members of the household (City of Johannesburg, 2018).

This response ratio amongst owners/directors can also be linked to the study by Petersen (2018), who states that home-based businesses are predominately owner run and operated. Most employment opportunities created by these businesses tend to be taken up by family members first (Petersen & Charman, 2018).

5.2.4 Number of Years in Business

As mentioned in the literature review, the home is seen as a location choice for nascent businesses (Nkeiru, 2012). The results for “number of years in business” show that 40% of these businesses are two years or less. This result shows a majority as the rest of the 60% is fragmented between different years.

Other research also shows that online business retail has grown by more than 200% between 2020 and 2021 and this growth is partly attributed to new entrants (Business Insider: South Africa, 2021).

5.3 Which clustered e-commerce elements are most likely to influence the location choice of home-based businesses in South Africa?

5.3.1 Hypothesis One

Marketplace E-commerce common elements influence the location choice of home-based businesses in South Africa

This hypothesis tested whether there is an association between marketplace e-commerce elements and the location choice of home-based businesses in South Africa.

Based on the study's findings, the question on "mobile-friendliness of my e-commerce partner makes it a preferred location to trade" and the question "My e-commerce partner has enabled me to trade across geographic boundaries", received the most positive responses. Therefore, these are the strongest common elements influencing the location choice of home-based businesses in South Africa.

These findings are supported by literature suggesting that the same principles that a business would employ when deciding on a physical business location need to be applied when choosing a virtual location (Burn et al., 2005). Therefore, marketplace e-commerce has all the features of a community as it brings together multiple sellers and buyers in one common marketplace.

Further support comes from Kapasi and Galloway (2018), who suggest that the decision to operate a HBB can be based on a variety of reasons including cost-minimisation, the type of business, and access to alternative trading platforms, such as e-commerce. This means that cost-minimisation brought about by relying on features prominent amongst marketplace e-commerce platforms, rather than investing in developing these features in-house, can maximise cost-efficiencies behind operating a HBB.

5.4 How clustered e-commerce in South Africa influenced the levels trust amongst home-based businesses in South Africa?

5.4.1 Hypothesis Two

Trust in marketplace e-commerce platforms influences the location choice of home-based businesses in South Africa.

This hypothesis tested whether trust factors relating to e-commerce platforms influence the location choice of home-based businesses in South Africa.

Based on the study's findings, a significant positive relationship was found between the trust factors and the common elements of location choice of HBB in South Africa ($\beta = 0.390$, p-value < 0.05). These findings are supported by literature which suggests that trust is an important factor to consider in the selection of a market-place e-platform (Sullivan & Kim, 2018). This means that the HBB must trusts that the marketplace e-commerce platform will carry out certain actions that will result in a positive outcome (Ghondaghsaz & Engesser, 2021).

As it has been confirmed in the statistics provided, home-based businesses trading on marketplace e-commerce rely on the features of the website to gain trust as they seldomly interact directly with the buyers (Sun, 2010). "The ease of use" had a score of 0.779 in the pattern matrix results. Soleimani (2021) agrees that the ease of use has a significant role on the ability of the HBB to trust marketplace e-commerce platforms (Soleimani, 2021).

Another factor that was found to influence trust is data protection. The relationship between marketplace e-commerce platforms and home-based businesses is characterised by a significant amount of data sharing (Ghondaghsaz & Engesser, 2021). Home-based businesses believe that the ability of the marketplace e-commerce partner to protect their data has a significant influence on their location choice.

The importance of trust is further projected by legislation on marketplace e-commerce. The ECTA Act was structured as an attempt to build trust in relation to electronic transactions by setting up procedures to ensure the security of the users and sellers (Pillay, 2017).

All these factors support the finding of the study that trust in marketplace e-commerce is key to the location choice of home-based businesses in South Africa.

5.5 Which economic factors are most relevant in the decision to choose clustered e-commerce as a location choice?

5.5.1 Hypothesis Three

Economic factors influence the location choice of home-based businesses that trade on marketplace e-commerce.

This hypothesis tested whether economic factors relating to e-commerce platforms influence the location choice of home-based businesses in South Africa.

Based on the study's findings, no significant relationship was found between the economic factors and the common elements of location choice of HBB in South Africa ($\beta = 0.077$, $p > 0.05$). These findings are supported by empirical research that has argued that the benefits of choosing the right location from an economic perspective could have an impact on the required investment, a reduction of costs to maximise profits and more rapid economic growth for the business (Płaziak & Szymańska, 2014). This means that economic factors would influence the decision between either setting up a HBB which uses marketplace e-commerce platforms, or a more traditional business run from a physical premise.

Olusegun et al. (2019) argue that key to entrepreneurship is the ability to achieve business performance objectives using fewer resources and technology plays a pivotal role in achieving this. This is contradicting the findings from Dixit et al. (2019) that concludes that business location choices are based on factors such as transportation,

proximity to the labour market, available infrastructure, proximity to suppliers or market, etc.

“My decision to trade on marketplace e-commerce was influenced by the cost to set up” as an economic factor showed an acceptable level of 0.747 in the pattern matrix. Lumbwe et al. (2018) agree with this finding and state that Home-Based Businesses consider a location that will minimise the set-up costs and operating costs of the business.

Marketplace e-commerce are supposed to benefit home-based businesses through the reduction of market entry costs, lowered distribution costs and increases the organisation’s ability to reach more customers or consumers (Ezzi, 2015). The common elements of marketplace e-commerce allow it to achieve this because they provide a shop front, payment systems, and order fulfilment processes (Burn et al., 2005). This argument also comes up in recent research, where it is found that the fulfilment, payment systems and warehousing support provided by marketplace e-commerce minimise the set-up costs of businesses (Park et al., 2021).

5.6 Chapter Five Summary

The purpose of this study was to investigate the impact that clustered e-commerce has on the location choice of home-based businesses in South Africa.

This study adopted a quantitative research methodology and data collection using a survey. Using the quantitative approach, the research was able to focus on the purpose of the study using questions and hypotheses. The targeted population of interest for this study was home-based businesses that trade on marketplace e-commerce.

Data was collected via Qualtrics and received 84 responses. A total of 40 responses were used. This is because responses with missing values were removed.

Internal validity was improved by following the listed measures.

A sample of respondents who identified as HBB owners, and managers was targeted.

- Questions were asked in a manner that reduced confusion.

- Factors for hypothesis testing were identified through an EFA analysis using the Promax with Kaiser Normalisation Rotation Method.

This chapter of the study focused on discussing the results which emerged from chapter four. A detailed demographic analysis of the respondents was performed, characteristics of the respondents, and results from the hypothesis testing.

Hypothesis 1- This hypothesis tested the relationship between marketplace e-commerce elements and the location choice of home-based businesses in South Africa. Based on the study's findings, the question on "mobile friendliness of my e-commerce partner makes it a preferred location to trade" and the question "My e-commerce partner has enabled me to trade across geographic boundaries", received the most positive responses.

Hypothesis 2- Based on the study's findings, a positive relationship was found between the trust factors and the common elements of location choice of HBB in South Africa ($\beta = 0.390$, p-value < 0.05).

Regarding Hypothesis 3, no significant relationship was found between the economic factors and the common elements of location choice of HBB in South Africa ($\beta = 0.077$, $p > 0.05$).

CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

Chapter six focuses on discussing the study's conclusions, the implications and finding of this study. Future research recommendations are presented in this section for consideration by those interested in undertaking research focusing on marketplace e-commerce, location choice and home-based businesses.

6.2 Study Conclusions

The study's objective was to comprehend the effects of clustered e-commerce on the location choice of home-based businesses in South Africa. This was based on assessing the common elements that make clustered e-commerce a location choice for home-based businesses in South Africa, measured how clustered e-commerce in South Africa has influenced levels of trust amongst home-based businesses and identified economic factors that influence the decision to choose clustered e-commerce as a location choice.

The decision to apply the location choice approach in assessing the impact that clustered e-commerce has on the structure of home-based businesses was based on the cluster theory and location theory. The location theory helped with providing a theoretical guideline of the factors that influence location decisions. Marketplace e-commerce was shown to have all the elements of a cluster and the study showed reasons why this can be termed clustered e-commerce. To make this argument, the cluster theory which is interconnected with location theory was used to guide the study. Michael Porter's (1998) description of the cluster allowed the study to fully understand the theory and draw a proper analysis of how this theory still applies to marketplace e-commerce.

The study results show that there is an association between marketplace e-commerce elements and the location choice of home-based businesses in South Africa. Based on the study's findings, the question on "mobile friendliness of my e-commerce partner makes it a preferred location to trade" and the question "My e-commerce partner has enabled me to trade across geographic boundaries", received the most positive responses.

A significant positive relationship was found between the trust factors and the common elements of marketplace e-commerce which influence the location choice of HBB in South Africa.This basically means that the results show that the ability to trust marketplace e-commerce platforms influences the location choice of home-based businesses in South Africa.

Regarding Hypothesis 3, no significant relationship was found between the economic factors and the common elements of location choice of HBB in South Africa. This means that home-based businesses are not highly influenced by marketplace economic factors in their location choice.

6.3 Implications and Recommendations

Research on the location choice of businesses has been a topic of interest in the academic field. Studies have looked at the factor conditions that are taken into consideration when businesses make location choices. The entrepreneur and management within the firm have to make decisions that allow them to effectively gain share growth in the market (Deloitte, 2021).

Location choices have led businesses to join clusters to reach a wider market (Goga et al., 2019). However, the move to operate a HBB has been perceived as moving away from clusters (Peterson, 2016). This view does not acknowledge the impact that marketplace e-commerce has on the location choice of home-based businesses. This interconnectedness is shifting from physical clusters to virtual platforms. Both on physical locations and virtual platforms, clusters provide a supportive environment for entrepreneurs (Porter, 1998b). Marketplace e-commerce relies on clustering to direct

and drive sales (Wątróbski & Małecki, 2017). Clustering is at the core of marketplace e-commerce.

The failure to understand the shift from physical clusters to virtual clusters creates the following problems: a failure to understand the impact of marketplace e-commerce on HBB location choices. As a result, spatial planning and regulations at municipal level will fail to acknowledge the shift in business location and processes (Peterson, 2016).

The findings of this study show the elements of marketplace e-commerce that have an impact on the location choice of HBB. The study further illustrates that economic factors have not had a significant impact on the location choice of home-based businesses in South Africa.

The implications are discussed below:

6.3.1 Implications for marketplace e-commerce elements and the location choice of home-based businesses in South Africa

- Marketplace e-commerce elements enable home-based businesses to trade across geographical boundaries. Though the business is trading and operating from home, it can reach markets beyond its immediate community. The implication of this is that the HBB is no longer hidden, but visible to across geographic boundaries.

- The mobile friendliness of marketplace e-commerce elements has had an influence on the location choice of home-based businesses. Because marketplace e-commerce drives a human-to-technology interaction, it is important that the platform is responsive to different channels and devices. Access to the platform is not only gained through the PC, but also through mobile devices. Focusing on this area to improve marketplace e-commerce participation amongst HBB will ensure that the cluster continues to influence the location choice of home-based businesses.

6.3.2 Implications of trust in marketplace e-commerce and the location choice of home-based businesses in South Africa

- Data protection is critical to driving trust on marketplace e-commerce. Marketplace e-commerce platforms must ensure that home-based businesses trust that their data will be protected. This has a strong impact on the location choice of the HBB.

- Ease of use has a strong impact on the ability of home-based businesses to trust marketplace e-commerce. Ease of use drives trust in the human-to-technology interaction. This fosters trust in marketplace e-commerce and the location choice of home-based businesses.

- The growth of marketplace e-commerce has a strong influence on the ability of home-based businesses to trust marketplace e-commerce. This means that as the platforms gain growth in the market, sellers can trust the marketplace e-commerce platforms.

6.3.3 Implications of marketplace economic factors and the location choice of home-based businesses

- Economic factors have no strong influence on marketplace e-commerce and the location choice of home-based businesses. Responses show that this is not a determinant on marketplace e-commerce and the location choice of home-based businesses.
- Though this is rejected, the cost to set up has an influence on the decision to trade on marketplace e-commerce.

A conclusion is reached that clustered e-commerce, which has been described in its popularly known term, marketplace e-commerce in this study, has an influence on the location choice of home-based businesses that trade on the platforms. Marketplace e-

commerce and location choice of home-based businesses is strongly influenced by trust and e-commerce elements, such as ease of use and mobile friendliness.

6.4 Suggestions for further research

The study finds that there is a relationship between marketplace e-commerce common elements, and trust levels on marketplace e-commerce on the location choice of home-base businesses in South Africa. Economic factors do not have a significant impact on this relationship. These findings can be used to conduct more research on marketplace e-commerce and the location choice of businesses. The following needs to be considered in future research:

- The research instrument was distributed between December 2021 and January 2022 which is a festive season in South Africa with many people being away from their normal routine. Many of the respondents were only reached in January 2022 during a time when they were setting up for the business year.
- The population is hidden and therefore there is no way assessing its true size against the sample.
- Marketplace e-commerce platforms are not compliant with the legislation (ECTA) which requires them to display the full details of the seller and therefore identifying these home-based businesses was a challenge. Compliance with legislation would improve the visibility of the population and impact the size of the sample.
- Respondents were not asked to identify their geographic area. Doing this would provide better insights on business location and the mix between businesses that trade in urban versus rural areas.
- Race profiles are not discussed in this study. This would have provided demographic insights linked to South Africa's demographics.
- Economic factors are an area that needs focus. This was found to be a result of the respondents not seeing an economic benefit besides the set-up costs. Research needs to be conducted further on how marketplace e-commerce can influence the location choice of HBB through economic value.

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Appendix A Ethics Clearance

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/EN2446327/248

This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	Clustered e-commerce platforms and the location choice of home-based businesses in South Africa
Investigator / Researcher	Mr Ngqiqo Mahlutshana
Nature of Project	MM (Entrepr & New Venture Creation)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	2021-11-30
Expiry date	Date of submission of the project report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 anthony.stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

30 November 2021
Date:

Appendix B Consistency Matrix

Consistency Matrix							
Research Problem: Problem Statement : Factors that influence South African home-based businesses to consider the growing cluster e-commerce as a location choice are not well-understood							
Sub Problems/Objective	**Literature Review**	**Research Questions**	**Hypotheses/Proposition**	**Variables(Independent&Dependent)**	**Source of Data**	**Type of data**	**Analysis**
Assess the common elements (DV) that make clustered e-commerce a location choice (IV) for home-based businesses in South Africa	Anholt , S. (2010). Clouse , C., Dixit, A., & Turken, N. (2020). de Klerk , S., & Kroon , J. (2005).	Which of the following common elements of clustered e-commerce make it a preferred location choice for home-based businesses in South Africa? - **Quick Onboarding of sellers, Payment Systems, Shipping, Admin Interface, Custom Search& Navigation, Product listings, Social Connect, Shipping, Analytics, Language and Currency Conversion, mobile Friendliness**	The ability to quickly set up and trade across geographic boundaries makes clustered e-commerce a location choice for home-based businesses in South Africa.	IV1= location choice DV= Common Elements	Questionnaire	Ordinal Data (7 likert Scale)	IBM SPSS v25 Through the use of descriptive statistics, correlation, linear regression. Analysis of variances. Reliability and vaillidity
Measure how clustered e-commerce in South Africa has influenced levels of trust amongst home-based businesses	Wątróbski & Małecki (2017) Goga , Paelo , & Nyamwena(2019). Ciguene & Marron (2021).Euromonitor International (2018)	How has clustered e-commerce in South Africa influenced the levels trust amogst home-based businesses in South Africa.	Clustered e-commerce in South Africa has had an influence on the trust levels that home-based businesses have on the location	IV2= clustered e-commerce DV= level of trust	Questionnaire		
Identify economic factors (DV) that influence the decision to choose clustered e-commerce (IV)as a location choice	Lumbwe, Anyadiegwu, & Mbohwa, (2018) Dixit , Clouse , & Turken (2019). Rahman & Kabir , 2019. Taher (2021).	Which of the following economic factors in influence the decision to choose clustered e-commerce as a location choice for home-based businesses? Proximity to Suppliers and Market, Transportation, real estate, labour cost, Resources, Trade and Tax Regulations	Economic influence the decision to choose clustered e-commerce as a location choice.	IV1= Location Choice DV=Economic Factors	Questionnaire		

Appendix C Research Instrument

Home Based Business Masters Research Wits

Survey Flow

Block: Introduction and Screening (3 Questions)
Standard: Section A: Demographics (7 Questions)
Standard: uth Africa (1 Question)
Standard: Section C: Levels of trust amongst home-based businesses (1 Question)
Standard: d (1 Question)

Page Break

Start of Block: Introduction and Screening

Q1 Dear Respondent, You are invited to participate in an academic research study conducted by Ngqiqo Mahlutshana, a final year Master of Management student at Wits Business School. The purpose of the study is to fully understand the impact that Marketplace(Clustered) E-commerce has on the location choice of home-based businesses in South Africa. The study is carried out under the supervision of Dr Jabulile Msimango-Galawe.

Your participation in this research is 100% voluntary and you have the right to withdraw at any point during the study, for any reason, and without any prejudice. The questionnaire will not be gathering any personal data, only information related to the specific study. Confidentially will be observed throughout the research process and the final report will be for academic purposes only. Your responses remain strictly confidential. Thank you sincerely for your contribution to this study.

Yours Sincerely
Ngqiqo Mahlutshana
Email :2446327@student.wits.ac.za

Accept Do Not Accept

- ○ Accept (1)
- ○ Do Not Accept (2)

Skip To: End of Survey If Q1 = Do Not Accept

Q2 Do you operate a business from your place of residence or work in a business that operates from a place of residence?

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If Q2 = No

Q24 Does the business trade on marketplace e-commerce (eg Takealot, Instagram Marketplace,Uber Eats)

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If Q24 = No

End of Block: Introduction and Screening

Start of Block: Section A: Demographics

Q22 Gender

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ Prefer not to say (4)

Q22 Age in years

- ○ 24 years or less (1)
- ○ 25 to 35 years (2)
- ○ 36 to 45 years (3)
- ○ 46 to 55 years (4)
- ○ 56 years or more (5)

Q23 Highest Level of Education

- ○ NQF Level 4 (Grade 12 or Matric level) or less (1)
- ○ NQF Level 5 (N6 Level Certificate) (2)
- ○ NQF Level 6 (National Diploma) (3)
- ○ NQF Level 7 (Bachelor's degree, BTech degree or Advanced Diploma) (4)
- ○ NQF Level 8 (Honours degree or Postgraduate Diploma) (5)
- ○ NQF Level 9 (Master's degree) (6)
- ○ NQF Level 10 (Doctoral degree) (7)
- ○ Above NQF Level 10 (Above Doctoral degree) (8)
- ○ Other (9)

Q3 Position held in business

- ○ Business Owner or Director (1)
- ○ Senior Manager (2)
- ○ Manager or less (3)

Years in business Number of years in business

- ○ 2 years or less (1)
- ○ 3 to 5 years (2)
- ○ 6 to 10 years (3)
- ○ 11 to 20 years (4)
- ○ 21 years or more (5)

Q20 Race Group

- ○ Black (1)
- ○ White (2)
- ○ Coloured (3)
- ○ Indian (4)
- ○ Asian (5)
- ○ Other (6)

Q26 Which Marketplace E-Commerce Platform do you trade on?

- ☐ Takealot (1)
- ☐ Amazon (2)
- ☐ Uber Eats (3)
- ☐ Mr Delivery (4)
- ☐ BidorBuy (5)
- ☐ Makro Marketplace (6)
- ☐ Private Property (7)
- ☐ Property 24 (8)
- ☐ Instagram Marketplace (9)
- ☐ Facebook Marketplace (10)
- ☐ Other (11) _____

End of Block: Section A: Demographics

Start of Block: uth Africa

Q32 In this section, please answer each question based on a 5-point ordinal or Likert scale in which the number 1 denotes the lowest degree of agreement, whereas the number 5 denotes the highest degree of agreement with the factors that influence the decision to choose clustered e-commerce as a location choice

That is,

1. Strongly disagree
2. Disagree

3. Not sure (neither agree nor disagree)

4. Agree

5. Strongly agree

	Strongly Disagree (1)	Disagree (2)	Not Sure (3)	Agree (4)	Strongly Agree (5)
The quick onboarding of sellers made it easy for my business to set up on e-commerce (1)	○	○	○	○	○
The payment systems offered by my e-commerce partner make it a preferred trading location (2)	○	○	○	○	○
The ability to social connect through my e-commerce partner make it a preferred location choice for my business (3)	○	○	○	○	○
The mobile friendliness of my e-commerce partner make it a preferred location to trade (4)	○	○	○	○	○
The admin interface of my e-commerce partner make it a preferred location to trade (5)	○	○	○	○	○
My e-commerce partner has enabled me to trade across geographic boundaries (6)	○	○	○	○	○

The location of my home-based business is based on access to marketplace e-commerce (14)	○	○	○	○	○
The ability to social connect through my e-commerce partner make it a preferred location choice for my business (13)	○	○	○	○	○

End of Block: uth Africa

Start of Block: Section C: Levels of trust amongst home-based businesses

Q27 In this section, please answer each question based on a 5-point ordinal or Likert scale in which the number 1 denotes the lowest degree of agreement, whereas the number 5 denotes the highest degree of agreement with the factors that influence the decision to choose clustered e-commerce as a location choice

That is,

1. Strongly disagree
2. Disagree
3. Not sure (neither agree nor disagree)

4. Agree

5. Strongly agree

	Strongly Disagree (1)	Disagree (2)	Not Sure (3)	Agree (4)	Strongly Agree (5)
The data protection measures taken by my e-commerce partner have influenced my trust levels on e-commerce (1)	○	○	○	○	○
As a home-based business I trust that my e-commerce partner will provide me with the same exposure as a large business (2)	○	○	○	○	○
The growth of marketplace e-commerce in South Africa has influenced me to trust the technology as a trading platform (3)	○	○	○	○	○
The ease of use is what makes me trust my e-commerce partner (4)	○	○	○	○	○
I trust my e-commerce partner (5)	○	○	○	○	○
The growth of marketplace e-commerce has made me doubt the trading location (6)	○	○	○	○	○
I rely solely on my e-commerce partner to trade (7)	○	○	○	○	○

The analytical information received from my e-commerce partner is trustworthy (8)	○	○	○	○	○
The ability of my e-commerce partner to protect my data has influenced my trust levels (9)	○	○	○	○	○

End of Block: Section C: Levels of trust amongst home-based businesses

Start of Block: d

Q31 In this Section, please answer each question based on a 5-point ordinal or Likert scale in which the number 1 denotes the lowest degree of agreement, whereas the number 5 denotes the highest degree of agreement with the factors that influence the decision to choose clustered e-commerce as a location choice

That is,

1. Strongly disagree
2. Disagree
3. Not sure (neither agree nor disagree)

4. Agree

5. Strongly agree

	Strongly Disagree (1)	Disagree (2)	Not Sure (3)	Agree (4)	Strongly Agree (5)
My decision to trade on marketplace e-commerce was influenced by the cost to set up (18)	○	○	○	○	○
My decision to trade on e-commerce was influenced by labor costs (31)	○	○	○	○	○
My decision to trade on marketplace e-commerce was driven by the need to use fewer resources (32)	○	○	○	○	○
My decision to trade on marketplace e-commerce was driven by the need to increase sales (33)	○	○	○	○	○
My decision to trade on marketplace e-commerce was driven by real estate costs (34)	○	○	○	○	○
My decision to trade on marketplace e-commerce was driven by the need to reduce costs (35)	○	○	○	○	○

My decision to trade on marketplace e-commerce was driven by the need to reduce regulation costs (36)	○	○	○	○	○
My decision to trade on marketplace e-commerce was driven by the need to reduce the cost of shipping goods to the market. (37)	○	○	○	○	○
My E-commerce partner has helped me reduce my operating costs (38)	○	○	○	○	○
My E-commerce partner has helped me reduce my cash collection costs (39)	○	○	○	○	○
My E-Commerce partner has helped me reduce my delivery costs (40)	○	○	○	○	○
My E-commerce partner has helped me access a broader market (41)	○	○	○	○	○

The payment systems offered by my e-commerce partner make it a preferred trading location (42)	○	○	○	○	○
Trading on Marketplace e-commerce makes me feel that I am part of a cluster (43)	○	○	○	○	○

End of Block: d