CONTEXTUAL FACTORS INFLUENCING WOMEN ENTREPRENEURSHIP IN AGRICULTURE: A CASE STUDY OF NKOMAZI LOCAL MUNICIPALITY.

By: Nsovo Jessica Nkuna

Student Number:201616475

ORCIDID No: 0000-0003-2691-9958

Submitted in fulfilment of the requirements for the

MASTER OF AGRICULTURE IN AGRICULTURAL EXTENSION AND RURAL RESOURCE MANAGEMENT

Supervisor: Dr. J.T Ndoro

Co-Supervisor(s): Dr O Kanayo

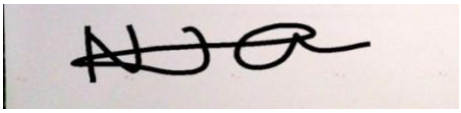
School of Agricultural Sciences

Faculty of Agriculture and Natural Sciences

2021

DECLARATION

I, Nsovo Jessica, affirm that the fillings of this thesis signify my unassisted work and that the thesis has not been formerly give in for academic examination towards any qualification. Additionally, it signifies my own thoughts and not automatically those of the Mpumalanga University.



10 February 2022

_____ _____

SIGNATURE DATE

ACKNOWLEDGEMENTS

I wish to thank:

1. Dr. Jorine Ndoro and Dr. Ogujiuba Kanayo, my research supervisors, for their patience, enthusiastic inspiration, guidance, and valuable critiques of this research work.

2. Mr. Welcome Zondo and Mr. Mfanufikile my classmates with whom I enjoyed enduring through the hard work and fun. They raised issues and questions that helped me think critically and carefully about my research project.

3. All those who supported me in any form during the completion of the project. Their efforts are greatly appreciated.

4. My mother, Doris Nkuna, my sister, Khenso Nkuna, and my daughter, Tinashe Hlatshwayo, and their prayers, moral and psychological support, and for their understanding and perseverance during my absence. Their smiles heightened my morale to carry on, and their desire for my advancement is greatly appreciated.

DEDICATION

To my life coach, my late father Taxon Nkuna, who passed on before he could witness the achievement of this thesis. His motivation and desire for my progression are seriously appreciated. I owe it all to you Dad. Many thanks!

LIST OF ACRONYMS

BRICS - Brazil, Russia, India, China, and South Africa

HIV/ AIDS - Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome

MIME - Mastercard Index of Women Entrepreneurs

SPSS - Statistical Package for the Social Sciences

TEA - Total Entrepreneurship Activity

Table of Contents

ABSTRACT

The goal of this study was to look at the contextual factors that influence women's entrepreneurship in agriculture in the Nkomazi Municipality. For the purpose of this study, a quantitative approach was employed as the design technique; interviews with a sample of 250 women entrepreneurs allowed for in-depth analysis of their subjective experiences; the study's findings are unique to the study area. The SPSS software was used to analyze the data. The study's findings suggest that women entrepreneurs in Nkomazi confront a variety of challenges, including a lack of finance, a lack of collateral for loans, a lack of expertise, a lack of education, and a lack of work-family balance. The study's limitations include the use of a case study technique, which excludes women entrepreneurs from beyond the Nkomazi local municipality, as well as women entrepreneurs who are not in the agriculture industry. More study has to be done with a broader range of women entrepreneurs, not only those in agriculture, and with more time devoted to allow the researcher to interview a larger sample. This is critical if we are to gain a complete understanding of the challenges that women entrepreneurs face in agriculture.

CHAPTER ONE: INTRODUCTION

This chapter introduces the topic of the study and it gives the background of this research based on which the research problem is derived. The chapter gives the objectives this study sought to achieve as well as research questions it intended to answer. The chapter highlights the significance of the study and finally gives the outline of the research.

1.1. BACKGROUND OF THE STUDY

Despite the fact that entrepreneurship is widely recognized as the bedrock of several economic systems both in developed and developing countries, gender inequality persists in this field. A large number of women are still sidelined and discriminated against. In more favourable circumstances, women can run companies, support their families and communities, and contribute to economic growth. The South African society suffer sas a result of women's lack of participation in entrepreneurship. Despite the fact that women entrepreneurs are recognized in both developed and developing nations, women around the world face numerous challenges, and Nkomazi is no exception.

According to Musom (2011), women make up 52.66% of the population of South Africa but are largely absent in business due to custom, culture, belief, and religion. In the Nkomazi area, women are thought to be better suited to domestic tasks like raising children, caring for domestic animals, producing food, and cooking. Women are often accused of being too soft to engage in business ventures (Musomandera et al., 2015). Despite this, several women in Nkomazi have decided to break through this barrier and start their own businesses. Despite having a high Mastercard Index of Women Entrepreneurs (MIWE) score, women only make up 19.4% of the population in South Africa, indicating that entrepreneurship is low compared to many other countries. Further, Female entrepreneurs are less likely to start a business in rural areas than male entrepreneurs (Coldham, 2013).

Because of the limitations imposed on them based on culture, beliefs, and religious ideologies, women have been largely absent in business for many years in comparison to men all over the world (Rubagiza, 2010). Even in New York, women entrepreneurs face obstacles such as a lack of access to capital, information, training, and education, as well as lingering discrimination that stifles their growth and success (Younge, 2021). Women in Europe are more impoverished than men, have less education and training, have less access to funding, and face discrimination when

it comes to running small businesses. This is why the European Parliament and policymakers advocate for gender equality to eliminate barriers to women entering the workforce. Despite attempts to encourage women, they continue to be marginalized (Kamberidou, 2020).

Women who are inspired to be self-employed by starting a business make less money than men, and their businesses are more likely to be micro-enterprises than small businesses (Tambunan, 2009). This is due to the difficulty in obtaining financial resources. Even before they apply, they are deterred from obtaining a loan, and the majority of them give up. Men, on the other hand, can obtain loans with less stringent terms and/or less collateral than women. Women's motivation to become entrepreneurs is hindered by discrimination (Panda, 2018).

Women are treated as second-class citizens in Asian society, and they do not get the same career options as men. A woman ought to be a homemaker, a partner, and completely reliant on her husband is a stereotype statement that prevents women from starting their businesses (Nsengimana, 2017). Start-up capital, access to finance, education and skills, a lack of technological knowledge, a lack of family support, and sometimes even rape are all obstacles for women who want to start their own business. Religion is a major barrier to women's business in Muslim countries. Women must be covered or at most scarfed, they are unable to go without the presence of men, and they have no freedom of movement. In Pakistan, for example, even public transportation seats for women are limited (Tambunan, 2009).

Women are discriminated against in South Africa as well. Women entrepreneurs face gender inequality, which discourages them from starting their own business (Chinomona & Maziriri, 2015). They encounter obstacles in training and education, being demotivated from learning subjects such as chemistry, mathematics, physics, and engineering, which are all considered to be “male” subjects. Women's creative thinking, innovation, and entrepreneurship can all be boosted by studying science (Chinomona & Maziriri, 2015). Because of the beliefs of lenders, banks, and investors who have difficulty with competent women managers, access to capital is also a major obstacle for women entrepreneurs. This is due to gender prejudice, not because women are incapable of running a business (Chabwera, 2018).

South African women have a hard time getting financing to expand their enterprises (Matsoso & Iwu, 2016). They grow to small businesses using the small profit they make in their micro-enterprises, so growth is slow. Gender discrimination reduces women's motivation for entrepreneurship and frustrates their desire to advance in the field (Chinomona & Maziriri, 2015).

In South Africa, a variety of factors such as race, gender, and location influence entrepreneurship. Gender statistics in the economy reveal disparities between men and women. Many women are forced to work in the poorly paid and mostly unregulated informal sector due to a lack of opportunities in the formal labor market. Race, gender, and class continue to determine access to and control of resources. As a result, absolute poverty, social insecurity, and mass unemployment continue to characterize South Africa, with the majority of people remaining excluded from socioeconomic success and advancement (McEwan, 2003).

Female entrepreneurship could be the key to unlocking South Africa's economic growth, according to the Global Entrepreneurship Report for South Africa (2014), if enough attempts are made to support female entrepreneurs in a targeted way. According to the report, encouraging and improving female self-employment, as well as pursuing intervention programs aimed at increasing female participation in business, is an important way to build the South African economy. Female entrepreneurs, according to the study, are convenient to fund and less volatile than their male equivalents; female-owned businesses may have a lower rate of business failure and create more jobs than male-owned businesses. Despite this, men are 1.7 times more likely than women to engage in early-stage entrepreneurship or become established firm managers (which is higher than the global average of 1.6 times).

Men's Total Entrepreneurship Activity (TEA)[1] was 8.1% in 2014, while women's TEA was 4.9%. This disparity could be explained by the fact that men are more 'opportunity' entrepreneurs than women; meaning they are motivated to start a new business with the aim of business growth and economic growth rather that survival. South Africa's overall TEA rate is lower than that of the other BRICS countries (Brazil, Russia, India, China, and South Africa), which could be because many South Africans (men and women) believe they lack the necessary abilities for entrepreneurship. Starting a business (GEM, 2014). The survey also indicates that South Africa does have the lowest percentage of new and established businesses, implying that the

[1] TEA – is the % of 18-64 year old population that is either a nascent entrepreneur, or owner of a business.

entrepreneurial sector's contribution is lower than the average for other developing nations. This can be significantly improved by expanding the female entrepreneurship market.

According to Fatoki (2014), government and non-governmental organization assistance in entrepreneurship had almost no impact on female entrepreneurial success, as the success rate only increased by 2.9%. Because society continues to view women as inferior to men and suited to housekeeping duties such as raising children, caring for domestic animals, producing food, and cooking, women in Nkomazi are undervalued by their male counterparts (Musomandera *et al*., 2015). Gender discrimination and inequality are considered natural rather than iniquitous in this patriarchal society (Rubagiza, 2010).

Women do not have the same freedom as men when it comes to deciding to establish a business since they must rely on their husbands or families for decisions. Women's desire to actively engage in growth in the economy and entrepreneurship is hampered by gender discrimination. The potential of female entrepreneurs is not fully realized, compared to that of male entrepreneurs (Rubagiza, 2010). Chance, forced, and produced entrepreneurs are the three basic categories of businesswomen. These categories are based on how women entrepreneurs start businesses and why they do so (Tambunan, 2009).

Chance entrepreneurs start a firm without a market segmentation or a business strategy; forced entrepreneurs do not necessarily want to be entrepreneurs, but are compelled to do so due to circumstances. For example, many women have lost their spouses and have been forced to start their businesses to support a family (Coldham, 2013). Women who are innovative entrepreneurs have entrepreneurial traits and intentions, and they follow the innovation process to start their businesses with the goal of growth.

Women entrepreneurs create jobs and contribute to the betterment of their communities (Tambunan, 2009). According to the first South African Women Entrepreneurs Job Creators Survey report, there is a strong commitment to job creation, with 90% of female entrepreneurs citing it as an important factor in starting their businesses. During the Covid-19 pandemic, women fought to keep their employees, with more than two-thirds either lowering or ceasing to pay themselves a salary in order to prioritize their employees (CHRO South Africa, 2021).

Even though there have been substantial developments in Nkomazi in terms of women's entrepreneurship, the problems that women confront in this field are not well known, and there seem to be no studies conducted on the subject. A study like this on the contextual elements that affect women entrepreneurs in Nkomazi is a step in the right way toward resolving the issues they encounter. It is also making progress toward the UN's agreed-upon sustainable development goals, which aim to eradicate poverty in all of its forms everywhere. These specific goals are to achieve gender equality and empower all women and girls to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all to promote peaceful and inclusive societies for sustainable development and to provide equal access to justice for all while establishing effective, accountable, and inclusive institutions at all levels (United Nations, 2016).

1.2. PROBLEM STATEMENT

In both developed and developing countries, entrepreneurship creates jobs, brings innovation, improves socioeconomic welfare, and generates economic growth (Choto *et al*., 2014). According to Musomandera *et al*., (2015) and Kushnir & Amin (2013), society considers a woman as weak and incapable of conducting business. Ascher (2012) agreed that many women in underdeveloped and developing economies are uneducated and live in abject poverty; however, this does not prevent them from making an investment in community economies and becoming entrepreneurs to some extent. Women control the micro-entities sector in most economies, contributing to growth in both rural and urban areas through their participation in small and medium-sized businesses (Ascher, 2012).

Women entrepreneurs are unable to realize their entire entrepreneurial potential as an effect; they have limited contribution to the economy (Jasch, 2015). Women entrepreneurs face a variety of challenges, according to Mboweni (2015) and Valla (2001), primarily due to gender-specific patterns and cultural socialization. This is due to a lack of entrepreneurial education, gender inequality, a worklife balance that is unbalanced, and limited financial resources. Because of their sociocultural environment, women's participation in business in rural areas is less favorable (Chinomona & Maziriri, 2015). Women in business are also noted as catalysts for poverty reduction, social improvement, and job creation, according to Barthavajan (2014). Women farmers yield over half of their food in agriculture, which is a typical example.

According to Mboweni's findings from 2015, the challenges that women entrepreneurs face in rural areas differ from those that women entrepreneurs face in urban areas. Valla (2001), Witbool & Ukpere (2011), and Mboweni (2015), for example, found that current research is insufficient in acknowledging that women in business are highly homogeneous. However, no research has been done specifically on the contextual factors influencing women's entrepreneurship in Nkomazi, so the goal of this study is to identify the contextual factors that influence women entrepreneurs in Nkomazi.

1.3. RESEARCH QUESTIONS

1.3.1. Primary Research Question

What constraints do women entrepreneurs face?

1.3.2. Secondary questions

a) How do women entrepreneurs rate the constraints that affect their entrepreneurship?

b) What is the likelihood impact of socioeconomic factors on women's entrepreneurship intentions?

c) To what extent do extension support services influence women's entrepreneurship?

1.4. AIM OF THE STUDY

To ascertain the different factors that affect and influence women's entrepreneurship in the Nkomazi Local Municipality.

1.4.1. OBJECTIVES

a) To analyze constraints experienced by women entrepreneurs.

b) To ascertain the socioeconomic factors that influence women's entrepreneurship intentions.

c) To examine the impact of extension support services on women's entrepreneurship.

1.5. SIGNIFICANCE OF THE STUDY

Research has not been done specifically on the contextual constraints influencing women's entrepreneurship in Nkomazi, so the goal of this study is to identify the contextual factors that influence women entrepreneurs in Nkomazi. The findings and recommendations will assist women entrepreneurs in Nkomazi, the government of South Africa, and other stakeholders in introducing initiatives to encourage equality between the sexes in entrepreneurship and resolve the negative experiences faced by women entrepreneurs in Nkomazi, as stated by (Matsoso & Iwu, 2016). The study's findings will also add to the existing literature of knowledge on gendered entrepreneurship, serving as a resource for researchers in South Africa and around the world, particularly in developing countries, with similar research interests.

1.6. OUTLINE OF THE STUDY

Chapter	Aim of chapter
Chapter 1	An introduction, some background, the research problem, research objectives, aspects of validity and reliability, and the study's significance are all presented in this chapter.
Chapter 2	This chapter examines and responds to the literature on the subject
Chapter 3	The methodology is explained in this chapter, as well as why the quantitative approach was chosen for the study. It also explains how to collect and analyze data.
Chapter 4	The presentation and discussion of the data are the focus of this chapter.
Chapter 5	The presentation and discussion of the data are the focus of this chapter.

1.7. CLARIFICATION OF BASIC TERMS

Contextual Factors	Factors that represent a specific context, as well as qualities that are specific to a specific group, community, society, or individual (Gelard & Saleh, 2011).
Entrepreneurship	The act of starting a profitable new business venture (Bateman & Snell 1996). Entrepreneurship can also be defined as the process of pooling resources to create new goods or services (Gedeon, 2010).
Women Entrepreneurship	A woman-owned, managed, and controlled business is referred to as a woman-owned, managed, and controlled business (Singh & Raghuvanshi, 2012). Individuals or groups of women who want to start a new business are known as women entrepreneurs. They perform management tasks like planning, leading, executing, and controlling business operations (Manerkar, 2015). A woman entrepreneur is a woman who takes a chance and invests in a new business. She manages the day-to-day operations of the company.
Formal Business	In the formal sector, these are businesses that have been registered. Every year, these businesses file a tax return with the government and contribute to the economy's growth (Rukundo, 2015).

Informal Business	Those were businesses that function in the gray market, with many of them not being required by the government to register. In comparison to those in the formal sector, their turnover is low. The founders of these businesses frequently employ a rudimentary management style (Rukundo, 2015).
Constraints	Something that regulates your actions by keeping you within certain parameters (Cambridge dictionary)

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. OVERVIEW

The literature review is discussed in this chapter. A literature review is a compilation of information gleaned from historically published works. It aids in situating current research within the context of existing knowledge on the subject at hand. A literature review, according to Mitchell & Jolley (2007), provides a solid foundation for new research. This chapter examines the relevant literature on women's entrepreneurship in developing countries, with a special focus on Nkomazi.

2.1.1. ENTREPRENEURSHIP

Entrepreneurship is the act of engaging in profitable business activities (Rwigema *et al*., 2008). Entrepreneurship has a long history; the word entrepreneurship is derived from the French verb entreprendre, which means "to undertake" (Rwigema *et al*., 2008). As a result, the entrepreneur is viewed as a "go-between" or anyone who undertakes (on behalf of others) (Rwigema *et al*., 2008). Entrepreneurship was once defined by the discovery of a business opportunity, product development, and marketing, all with the sole goal of making a profit (Chabwera, 2018).

"Entrepreneurship is the ability and willingness of individuals to perceive and create new economic opportunities (new products, new manufacturing processes, new organizational schemes, and new product market combinations) individually, in teams, within and outside existing organizations, and to incorporate their ideas and initiatives, in the presence of uncertainty and other obstacles, by making decisions about location, form, and use of resources and institutions." Thus, entrepreneurship is the process by which an entrepreneur recognizes and pursues a business opportunity (Barringer & Ireland, 2008).

Entre, which means "between," and prendre, which means "to take," are two French words that combine to form the word entrepreneur. This term was used to describe the business operations involved in buying and selling (Barringer & Ireland, 2008; Rwigema *et al*., 2008). An entrepreneur is a person who sees a business opportunity and gathers the resources needed to turn it into a viable business (Barringer & Ireland, 2008). An entrepreneur, according to Carree & Thurik (2010), is a person who can make the right decisions and effectively manages products, resources, or organizations to succeed. Entrepreneurs are "change agents; they offer creative, innovative ideas

for business enterprises; and they help businesses grow," according to Kuratko & Hodgetts (1998), as cited by Rwigema *et al*., (2008).

Some authors, such as Carter and Shaw (2006), define a woman entrepreneur as someone who owns a certain percentage of a company. A woman is considered an entrepreneur if she owns more than 50% of the stock in a company. As a result, a woman entrepreneur is a woman who uses her experience, skills, and knowledge to expand a business or create a new venture opportunity. A single woman or a group of women who gather the resources to start a business, assume the risks, and solve the problems that come with running a business is referred to as a women entrepreneur (Malhan & Ishita, 2015). A woman entrepreneur is a woman who starts a business to pursue her personal goals of becoming self-employed and financially independent. She will encounter obstacles in running and growing the company, but she adds value to the family, community, and society in terms of economic growth. Women entrepreneurs are women who plan, lead, execute, and control business activities. They can be individuals or groups of women (Chinomona & Maziriri, 2015).

OBJECTIVE 1: SOCIO-ECONOMIC FACTORS THAT INFLUENCE WOMEN ENTREPRENEURSHIP

Women have the right to control the course of their lives thanks to socioeconomic liberty. Entrepreneurship raises women's social standing. Several social, economic, and psychological factors influence entrepreneurial activity. Thus, any attempt to comprehend women's entrepreneurial activity must begin with an examination of their socioeconomic status or condition (Samanta, 2016). Socioeconomic factors are economic factors that are related to society. These factors are interconnected and impact one another, for example, income is determined by employment, employment is related to educational attainment, and educational attainment determines employment (Stern, 1993). In various contexts, such as social, political, biological, logical, and innovative languages and writing, financial progress is defined in various ways. Improving one's financial situation entails bettering one's way of life through higher educational attainment, skill advancement, and employment opportunities (Mebratu, 1998).

2.1.2. AGE

Due to family obligations, women start their businesses later in life than their male counterparts (Kovalainen, 1995). Entrepreneurship may provide more flexibility in balancing family and work

obligations than paid employment in many countries, increasing the interest of young mothers in starting new businesses. Working as an entrepreneur may allow one to schedule work hours that are suitable for your children. In Finland (Statistics Finland, 2003), the age range of a mother to give birth to her first child is close to 30, and it is similar in all other countries. When children are of school age, the integration of family and self-employment is most conducive to work activities for women, so the involvement of women in new firm formation processes is expected to increase as a function of age.

Women's job status is influenced by the form of childcare institutions and other possible societal family support systems, such as monetary compensation. Women in their reproductive years are less likely to become entrepreneurially engaged since self-employed women generally receive smaller maternity and parental leave payments than women in paid employment. In Finland, wages for self-employed women who have been self-employed for 7 years are about 7% lower than earnings in paid employment (Hyrkkänen, 2003). In comparison to their former earnings in paid work, this means less earned income and hence less monetary benefit during parental leave for self-employed women.

Young females who participate in entrepreneurship have more lucrative and very wellmanaged businesses, as well as a strong entrepreneurial activity, according to research (Sudhakar & Temilselvi, 2007). The best age for women to start their entrepreneurship career is when they are young because they do not have many family responsibilities and can work freely on their entrepreneurship (Sudhakar & Temilselvi, 2007). Sudhakar & Temilselvi (2007) estimated that nearly half of women aged 36 to 45 start a business, while Trihopoulou & Sarri (1997) discovered that women aged 36 to 54 are interested in starting a business. According to the researchers, a significant proportion of them started their businesses between the ages of 36 and 55.

2.1.3. EDUCATION

Women are more likely than men to pursue higher education. Women make up 55% of third year students in Norway, Sweden, and Denmark. The corresponding percentage in Finland is 53%. Greater female educational attainment is a result of increased business skills and expertise, as well as commercialized female intellectual capital (Walker, 2005). Women invest in education to gain access to more interesting and well-paying jobs and occupations. Self-employment has its own set of advantages and disadvantages, such as freedom and control, as well as risks and rewards.

It is expected that the majority of highly educated women will be interested in self-employment to profit from their educational investment. Despite their high educational levels, women are underrepresented in management positions, and when they are, they earn less. Women's representation in leadership is substantially lower than men's, and this pattern has stayed essentially unchanged over time. According to Spilling and Berg (2000), women made up about 16% of managers and 10% of board chairmen in Norway in 1995. In Finland, the percentages are much lower in 2001: women make up less than 5% of board members in the biggest companies (Hearn *et al*., 2002).

According to Clark and James (1992), women who try entrepreneurship do so to eliminate discrimination in the workplace. This is supported by previous evidence that female entrepreneurs have a higher educational level than waged workers (Kovalainen 1995). The time it takes to accrue adequate capital for a business start-up is said to be influenced by women's relatively low-waged earnings (Renzulli *et al*., 2000). Education may motivate to pursue self-employment as well as the ability to do so. As a result, increasing education should have a positive impact on the preference for self-employment.

Young female entrepreneurs under the age of 30 who have a good education are not limited to farm income and seek other non-agricultural sources of income. Many of them want to improve their educational level to look for non-agricultural jobs in cities because they are dissatisfied with their farm income and believe that there are more opportunities for a better quality of life in a big city. On the basis that government assistance is required to survive on their land, a small number of women farmers, mostly young women, get the option to remain in rural areas despite having a high level of education (Kovalainen 1995).

In women who find it difficult to become entrepreneurs, a lack of adequate education or analphabetic is a factor. Women who run small businesses typically have a lower educational level than their male counterparts who typically run large businesses (Walker *et al*., 2008). People who want to be adaptive entrepreneurs and solve complex problems benefit from education (Wright *et al*., 2008). With the right education, women will be able to recognize and take advantage of business opportunities as they arise (Wrigh, 2008). Schooling increases the success rate of women entrepreneurs in their smaller companies, according to Kuzilwa (2005).

Women are less likely to start businesses in developed countries because they have very little knowledge that is required for formal employment (Mfaume & Leonard, 2004). There is a clear link between education and entrepreneurship, as Stringfellow & Shaw (2009) found in their research on women's entrepreneurship. It is argued that women owned businesses have constrained performance due to gendered socioeconomic positioning, but this is not synonymous with underperformance. Furthermore, ingrained epistemological gendered biases persist, portraying women as flawed entrepreneurs despite the lack of convincing data on essential gendered differences in male and female entrepreneur performance (Marlow & McAdam, 2013).

2.1.4. HOUSEHOLD INCOME

A higher household income may therefore enable a woman to obtain the needed seed capital for launching a new business. Women may be able to tolerate the investment risk related to entrepreneurial activity if their household income is higher. However, if the woman is the household's sole or primary income earner, her involvement in new firm formation and development poses a significant risk to her family.As a result, the mechanisms for women's selfemployment activities vary depending on their income level and the components of their household's income. According to Connelly (1992), an increase in household income has a significant positive effect on the probability of women being entrepreneurially active. A positive relationship exists between a husband's monetary backing and the likelihood of his wife working for herself (Connelly, 1992).

2.1.5. PERCEPTION OF NECESSARY SKILLS

Perceptions of feasibility and desirability drive intentions (Ajzen, 1991; Shapero & Sokol, 1982). A person must believe that the new firm formation is individually desirable, endorsed by social norms, and feasible to participate. Individuals may be more inclined to pursue self-employment if they believe they have the necessary skills to function in such an environment, according to studies on self-efficacy (Boyd & Vozikis, 1994; Chen *et al*., 1998; Krueger & Brazeal, 1994). As a result, to take advantage of an opportunity, a woman must believe that she possesses the necessary skills and knowledge to launch a new business.

Gender differences in the ability to observe needed skills in oneself exist: if gender is largely determined by social and cultural structures, practices, and processes, gender differences in development for women and men are embedded in those practices and processes, resulting in

differences in the ability to recognize skills. Gender also affects personal identity, which can be defined as the psychic process of experiencing oneself (Cipriani, 2020).

2.1.6. SOCIAL CAPITAL

It is expected that social capital associated with dense networks, which often include connections to self-employment, will be directly correlated to involvement in new business formation. It has been reported that social learning differences (such as sex-role stereotyping, an absence of adequate role models, and environmental constraints) have a significant impact on entrepreneurial careers (Birley, 1989). Perceived support and the acceptability of new formation participation are frequently learned procedures (Ajzen, 1991). Observing the behaviors of others, referred to as role models, is one way to gain social capital.

The majority of research has focused on the relationship between a positive parental role model and the development of an entrepreneurial career preference (Kovalainen, 2004; Matthews and Moser, 1995; Scherer *et al*., 1990). This relationship is demonstrated in studies in which women with entrepreneurial parents have expressed greater interest in self-employment than have their counterparts without such vicarious experience (Matthews & Moser, 1995; Watkins & Watkins, 1983). Social learning is not necessarily restricted to the familial circle, for individuals learn from and are influenced by others throughout their lives.

The interchange of attributes, mentalities, and conduct displayed by its individuals determines the general public's social direction (Inglehart & Baker, 2000). People's practices are influenced by such convictions, which in turn shape their behavior decisions in a variety of situations. The procedure repeats itself as the ever-changing examples of individual and collective behavior influence society's way of life. Moreover, various studies support the idea that culture has a significant impact on the general public's pioneering ability and that social orders do not typically have a homogeneous social setting (Giwa & Babakatun, 2019).

Women are encouraged and motivated to participate in activities when their family or neighbors do so. Women are more likely to engage in entrepreneurship if their husbands, families, and society as a whole recognize it (Gelard & Saleh, 2011). According to a study by Mboweni (2015), women from nuclear families are more entrepreneurial than those from joint families.

2.1.7. EMPLOYMENT

Working for a living is an important aspect of being a female entrepreneur. The relationship between employment and entrepreneurship is studied in two ways, according to Verheul & Stel (2006): pull effects and push effects. Unemployment forces women to become entrepreneurs, according to the push effect, whereas the pull effect has a negative relationship with employment (Audretsch, 2014). According to the push effect, an increase in the job rate reduces the likelihood of achieving a sufficient income and reduces the chances of working in traditional industries, leading women to become entrepreneurs.

Due to the ambiguity of the relationship between entrepreneurship and employment, scientific data on the two concepts revealed that unemployment has a strong correlation with entrepreneurship. Evans and Leighton (1990) discovered that female contribution to free enterprise is directly proportional to unemployment. Sudhakar and Temilselvi (2007) predicted that the relationship between family employment and entrepreneurship would be insignificant.

According to Norris *et al*., (2008), there is an implicit occupation preference power structure in which the most successful women become entrepreneurs, while the rest of the women become self-employed, and the vast majority of women become employees of other companies. The decision to work for an individual is usually modelled as a utility optimization decision.

2.2. OBJECTIVE 2: CONSTRAINTS EXPERIENCED BY WOMEN ENTREPRENEURS

2.2.1. LACK OF ENTREPRENEURSHIP EXPERIENCE AND MARKET SATURATION

According to Uwantege and Mbabazi (2015), male entrepreneurs have much more experience in the business than female entrepreneurs and continue to control the business industry. Female entrepreneurs have a difficult time competing with well-established male entrepreneurs (International Finance Corporation, 2008). Because there are no agricultural activities in towns, women in towns contribute less economically than women in rural areas (National Institute of Statistics of Rwanda, 2012). According to the United States of America's United States Agency for International Development, a significant number of women entrepreneurs do not write a business plan before starting their business and do not develop a mission, vision, objectives, and goals to achieve that will help them obtain loans. They cannot find a new market or specialized market to satisfy their needs and wants because they do not do market research (International

Finance Corporation, 2008), so they end up operating in saturated markets that are difficult to penetrate. Women with prior experience in the industry, on the other hand, can use that experience to start, manage, and grow their businesses (Faye *et al*., 2013)

2.2.2. LACK OF BUSINESS MANAGEMENT KNOWLEDGE, EDUCATION, SKILLS, AND TRAINING

Entrepreneurship training and education are important tools for women business owners to effectively run and operate a business because they keep business owners up to date on current and upcoming industry developments (Iwu & Nxopo, 2015). Although entrepreneurship training and education are more important, female entrepreneurs are on the verge of receiving less of these teachings than males. According to Phillips et al. (2014), managing an enterprise is very risky for both male and female entrepreneurs, especially for female entrepreneurs who not only want to survive in a patriarchal environment but also frequently lack business education and teaching in entrepreneurship.

According to Richardson and Hynes' (2008) research on female businesspersons in African countries, many female businesspersons in Africa believe they have insufficient abilities, abilities, and knowhow/knowledge in certain industry matters. Thus, if women entrepreneurs are not adequately prepared through relevant entrepreneurship trainings, sustaining their livelihoods will remain a distant dream. Training improves women's ability to manage loans to expand their businesses. Brush *et al*. (2012) argue that women entrepreneurs require extensive entrepreneurship training to recognize the types of businesses that will provide them with opportunities, rather than focusing solely on small businesses.

2.2.3. INADEQUATE ACCESS TO FINANCE

Entrepreneurs, particularly women entrepreneurs, face significant financial challenges. There is little hope for long-term business growth and competitive advantage without adequate access to capital (World Bank, 2009). Manufacturing businesses have better access to capital than other businesses, and large and medium businesses have a financial advantage over small and micro businesses, which are dominated by women (World Bank, 2009). Due to a lack of access to capital, women entrepreneurs are forced to start businesses with their own money or by getting a loan from friends or family.

Women are denied loans due to a lack of collateral and lenders' negative perceptions of women as high-risk debtors (Nsengimana, 2017). Women's businesses frequently fail to improve as a result of starting with too little capital, or remaining pretty static (Singh & Raghuvanshi, 2012; Chinomona & Maziriri, 2015; Uwantege & Mbabazi, 2015). According to the United Nations (UN), most women's businesses are informal and micro-enterprises, which limits their ability to obtain loans to grow their businesses (United Nations, 2014). Finance is a major barrier for women in business (Deborah *et al*., 2015), and because they lack adequate capital, they are unable to compete with male-owned businesses or properly incorporate their businesses into the business world (Tambunan, 2009). According to Palaniappan *et al*. (2012), the government should provide free loans to women entrepreneurs to encourage them to start new businesses and close the gender gap in entrepreneurship.

2.2.4. GENDER INEQUALITY AND DISCRIMINATION.

Even though many women want to start their businesses, social stereotypes can prevent them from doing so (Kamberidou, 2020). Gender stereotypes contribute to gender discrimination and the undervaluation of women's business management abilities. Women entrepreneurs do not have access to the same business climate as men. They work under the threat of discrimination, which is one of the reasons why there are so few of them (Panda, 2018). According to Nsengimana (2017), some men think that financing women in business is like putting money on fire because women lack the managerial skills needed to run a successful business.

Women entrepreneurs are frequently referred to as "survivalists," as they dominate low-skill, low-capital-intensive, often informal, and micro-businesses. Such stereotyping of female entrepreneurs continues to overshadow the significant progress that women entrepreneurs have made in recent decades. The scarcity of data and information on the private sector in general, and on female entrepreneurs in particular, has contributed to this. Available surveys frequently do not provide an adequate overview or show trends over time. They mostly lack gender disaggregation and use different sector categorization, making comparative analysis difficult (Solomon, 2010).

2.2.5. CULTURE, NORMS, TRADITIONS, AND BELIEFS

In some cultures, women are not permitted to own property that could be used as collateral (United Nations, 2014). Women's entrepreneurship is discouraged and their business growth is hampered by a lack of community support and a negative perception of women's businesses (Chinomona &

Maziriri, 2015). Traditional culture prioritizes a boy child over a girl, preventing girls from learning more about entrepreneurship and empowering them to start and run a successful business (Brush *et al*., 2012). Women are assigned the role of housekeeper in culture and juggling home responsibilities and business makes it difficult for women to focus on their careers (Shahnawaz, 2015).

Furthermore, women entrepreneurs who issue instructions to their male employees are seen as difficult or unusual (USAID, 2015). When a child or husband is sick, married female entrepreneurs are unable to run their businesses because they must stay at home to care for them, affecting the company's reputation, sales, and growth, as well as adding to the family's expenses (Shahnawaz, 2015). As a result, women entrepreneurs, particularly those with small children, will not have enough time to focus on their businesses due to family obligations, which will, in turn, affect the growth of their businesses.

2.2.6. HUMAN IMMUNODEFICIENCY VIRUS INFECTION AND ACQUIRED IMMUNE DEFICIENCY SYNDROME (HIV/ AIDS)

In 2006, the total number of HIV-positive people was estimated to be 39.5 million: women account for 45 % of HIV-positive people worldwide, and they are infected at a younger average age than men. A massive health crisis has far-reaching ramifications for society as a whole. One of the consequences could be absenteeism; if the entrepreneur is absent for medical reasons, there may be a lack of management, supervision, and guidance. Prolonged absence or extended sick leave among key employees may result in lower productivity, lower profits, and even the failure of the business (UNAIDS, 2007).

Women-led businesses face greater financial challenges: because their businesses are typically smaller and have limited working capital, expenses incurred as a result of the entrepreneur's, partner's, or child's illness can drive a company down and lead to its closure (Bollinger & Stover, 1999). Bollinger and Stover (1999) further state that HIV/AIDS is a significant problem for women's businesses, lowering morale and motivation. When a client receives a positive status diagnosis, it loses faith in the network, and they leave.

2.3. OBJECTIVE 3: IMPACT OF EXTENSION SUPPORT SERVICES ON WOMEN ENTREPRENEURSHIP

The inherent value of providing women farmers in developing countries with the necessary skills to start and run a successful business is widely acknowledged as a major element of the social and economic development process. Women can have a big say in how scarce resources are allocated for consumption, investment, and production in the home (Shahnawaz, 2015). What crops to grow, what inputs and methods to use, and how to handle these crops throughout the season are all examples of investment and production decisions in a farm household. When taken together, women's roles in a variety of decisions have major implications for labor, food, nutrition, health, and a variety of other aspects of a household's livelihood strategies (Sariyev, et al., 2020).

Inadequate access to extension support services and information, including information about productivity-enhancing agricultural technologies and practices (Danso-Abbeam, et al., 2018). Women's informed involvement in the crop, technology, and practice decision-making may be limited as a result of this. Agricultural extension programs aimed at male farm-household heads are frequently to blame. At least two strong presumptions explain why this type of discrimination persists: within the household, all flow of information from men to women, and women play minor roles in agricultural production (Duckett, 2019).

Entrepreneurship is progressively being linked to rural development as a program that can aid in the process' promotion and acceleration. Furthermore, both institutions and individuals concur that promoting rural businesses is essential. Rural entrepreneurship is seen as a way of raising the standard of living for individuals, families, and communities, as well as maintaining a healthy economy and environment, in addition to the potential benefit of providing employment. The main goal of extension services was to teach farmers how to think like entrepreneurs, then learn how to act like entrepreneurs, and finally perform like entrepreneurs (Kahan, 2012). Kahan (2012) further states that smallholder farms that are trying to cope with the pressure of a growing and evolving complex global economy are turning to entrepreneurship for help. Most extension agents, particularly those funded by governments and non-governmental organizations (NGOs), have traditionally focused on assisting farmers in working in groups, growing more produce, and developing cooperative agribusiness options. Much of extension work included a marketing component since the 1990s, intending to connect farmers to markets.

However, the marketing strategy has mainly focused on achieving economies of scale by aggregating products for sale through collective group marketing. The farmer group support model

has a strong track record and should not be dismissed as obsolete because it benefits millions of farmers around the world, across a wide range of product categories and markets. However, the farmer cooperative model is not the only way to go, and this guide provides a supplement that aims to help more individualistic agripreneurs. This approach is thought to be catalytic, particularly within value chains, to foster new business opportunities that generate more value and jobs (FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, 2014).

According to Mie (2007), the significance of agripreneurship extension is to assist agripreneurs in creating more agricultural businesses; creating wealth, jobs, and work opportunities both on and off-farm; assisting women agripreneurs in modernizing their local farming community; and providing more opportunities for more farmers to access better pay to support better lives. Advisory services must assist this new group of clients in seizing new opportunities in novel ways (Mie, 2007).

Women entrepreneurs, according to Antwi-Agyel and Stringer (2021), require the support and advice of extension agents to meet the zeal for greater commercialization. Extensionists can work directly with farmer-entrepreneurs as well as farmer groups, associations, and cooperatives to assist them in conducting market analyses, working in value chains with partners, developing farm plans, financing, and sales, as well as developing the skills and competencies needed for successful entrepreneurship. Women's agripreneur development is a difficult task that entails collaborating with market actors and connecting to business services that support the value chain. In this way, a woman agripreneur's success usually necessitates collaboration with others and membership in an organization that can assist in identifying public and private sector partners to assist in the business process at specific points (ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, 2004).

Pluralistic extension, according to Gemo *et al*. (2012), recognizes the diversity of farmers and farming systems, as well as the need to tackle the problems in agriculture development with various approaches. It is defined by collaboration between various public, private, and mixed extension systems and approaches, as well as multiple providers and types of services, funding streams, and information sources. Pluralistic extension has several advantages in women's agribusiness development because it: discusses the need for particular extension services for specific contexts, economic enterprises, livelihood operations, and farmer categories; addresses a

wide range of demands while ensuring efficient use of the range of service providers available; develops better services through collaboration between community-based, public, and private sector actors; and shifts the paradigm of women's agribusiness development; and establishes a system wherein the structure and content of extension services are more responsive to farmers' needs and priorities, such as some services focusing on improving the social inclusion of vulnerable groups and others on developing and empowering the value chain.

Agricultural extension offers services to women entrepreneurs in different ways, the services are outlined in the table below (Prus & Drzazdzynska, 2017)

Service category	**Description**
Technology and product development	Services that support agricultural research and find new ways to produce, process, and market agricultural products, such as current digital information systems and droughtresistant seed, for example.
Training and technical assistance	Services that help farmers and businesses better organize and execute their operations while also improving their technical knowledge.
Input supply	Services that assist farmers in gaining access to and using raw resources and production inputs such as seeds, fertilizer, agrochemicals, and tools. These services also make it easier for farmers and suppliers to connect, allowing suppliers to reach out to more farmers and offer better, less costly inputs.

Finance	Financial service providers, such as commercial banks and money lenders, provide credit to smallholder farmers and agribusinesses in the form of loans, and informal providers, such as money lenders and savings cooperatives, provide credit to smallholder farmers and agribusinesses in the form of loans. Supplier or buyer credits, warehouse financing, and venture or private equity capital are all examples of financial services.
Market access	Services that help entrepreneurs introduce better value-added products and meet buyer specifications by identifying and establishing new markets for smallholders and agribusinesses, facilitating linkages between all actors in a given market, enabling buyers to broaden their outreach to, and purchases from, rural producers, and assisting entrepreneurs in developing new value-added products and meeting buyer specifications.
Infrastructure	Irrigation, refrigeration, storage, processing facilities, transportation systems, loading equipment, communication centers, enhanced ports, and expanded road and rail routes are examples of services that create viable infrastructure and communication networks that allow producers to increase production, sales, and profitability.

Policy	Policy service providers: undertake research and analysis to promote better terms of trade, strengthen sectorial governance, and rectify any power differentials; identify and restructure policies and regulations that stifle smallholder farmers and agribusinesses; and facilitate the coordination of businesses, donors, government officials, and academics around policies.

2.4. CHAPTER SUMMARY

This chapter reviewed the literature related to contextual factors influencing women entrepreneurship in agriculture. The chapter started by discussing the concept of entrepreneurship, and objectives related to the research. The first objective discussed was the socio-economic factors that influence women entrepreneurship such as education, age, and social capital. Constraints experienced by women entrepreneurs were also reviewed, a lack of entrepreneurship experience and market saturation, lack of business management knowledge, education, skills and training, and inadequate access to finance are some of the constraints discovered in the reviewed literature. Impact of extension support services on women entrepreneurship was the last objective reviewed.

CHAPTER THREE: DATA AND METHODOLOGY

The literature on the phenomenon under investigation was reviewed in the previous chapter. The study's research design and methodology are described in this chapter. According to Jensen and Laurie (2016), a research design is a study plan that outlines specific goals to be met, whereas research methodology is the method used in research to achieve the goals (Jensen & Laurie, 2016). The philosophical foundation of the study, the research design and methodological approach used, the setting, sampling and sample size, ethical considerations, and data collection, management, and analysis will all be discussed in turn.

3.1. RESEARCH PHILOSOPHY

A researcher's research philosophy is their viewpoint on what constitutes the reality of a phenomenon and how knowledge about it should be generated. It directs the methodology to be used to collect, analyze, and apply data to answer the research question in terms of the phenomenon under investigation. The researcher selects a philosophy that essentially defines his or her worldview. The methodology used to conduct research is influenced by the assumptions implicit in this viewpoint (Oribhabor & Chioma, 2019). As a result, research paradigm is a consensus among scientists in a particular area regarding how phenomena might be understood and communicated (Patel, 2015).

Positivism, constructivism (interpretivism), and pragmatism are the three major philosophical paradigms. Positivism is the belief in the objective existence of a reality that can be found and measured scientifically. Interpretivism, on the other hand, believes that social science is distinct from natural science. The point of view, context, and means of knowing all influence our understanding of reality. Reality is dynamic, subjective, and inductive. Interpretivism is frequently associated with qualitative research methods (Creswell, 2003; Bryman & Bell, 2015). Pragmatism is a philosophy that combines positivism and interpretivism (Oribhabor & Chioma, 2019).

A positivist philosophical paradigm was used in this study. This was appropriate because the goal was not to develop a better understanding of the obstacles female entrepreneurs in Nkomazi from their point of view, but rather to determine the extent to which each challenge might influence policymakers to take the findings into account improve the development of women's businesses. Truth, according to the researcher, should be discovered scientifically (Lowe, 2019). Positivism indicates what we believe to be true by measuring it scientifically. The truth exists outside; it must be sought out, observed, measured, logically reasoned through, and the results applied to entire populations or classes of things (Gray, 2021). A literature review is a critical foundation for a new study, according to positivism.

The researcher wants to know how big the contextual factors are in Nkomazi that influence women entrepreneurs. As a result, a questionnaire was distributed to women entrepreneurs in Nkomazi to gather information on the challenges they face in running their businesses. To measure the level of challenges faced by women entrepreneurs in Nkomazi, a quantitative methodology was used to

collect data and analyze it using SPSS. The findings are expected to be applied to all female entrepreneurs in Nkomazi. (Creswell 2003; Oribhabor & Chioma, 2019).

3.2. RESEARCH METHODOLOGY

Choosing research methods and strategies for sampling, data collection, and data analysis to achieve the desired research results is referred to as identifying a research methodology (Brynard *et al*., 2014). According to Babbie & Mouton (2001), the role of research technique in the research process is to bring together material, knowledge, and strategy in order to carry out the study design. There are three primary approaches for gaining a better understanding and new information about a phenomenon under inquiry, according to Saunders et al., (2009). Qualitative, quantitative, and mixed research methods are the three types of research methodologies.

Inductive and interpretive methods are used in qualitative research. It interprets people's gestures and words and makes meaningful observations. A qualitative sample population is small and cannot be generalized to the entire population, but it can help one understand a phenomenon better. The quantitative method, on the other hand, is logically coherent, objective, and positivist, producing statistically analyzed data. It makes use of big sample size and its findings can be applied to the entire population. The method has a high level of validity and reliability. In a single study, mixed methods research incorporates fundamentals of both qualitative and quantitative methods (Bell & Bryman, 2015).

A quantitative approach was used in this study. In social and business fields, the quantitative approach is used to objectively measure attitudes, behavior, and opinions (Sukamolson, 2010). According to Nani (2011), the quantitative method has a high level of reliability, the correlation between variables and effects, and statistics that are simple to interpret and update. The quantitative method was chosen to learn more about the contextual factors influencing women's entrepreneurship in Nkomazi on a statistical level and to quantify them according to their magnitude.

Quantitative research can be done in a variety of ways, according to Williams (2007), including descriptive research, correlational research, developmental design, observational research, and survey research. To collect data from women entrepreneurs in Nkomazi, this study used a quantitative descriptive design and a survey questionnaire technique. To analyze data displayed

statistically in table form, frequency counts and binary logistics were used. Similar studies have also used the quantitative method (Ackah & Vuvor, 2011; Connelly 2014; Agbenyegah, 2013; Deborah *et al*., 2015).

3.3. STUDY AREA

The study took place in the municipality of Nkomazi, which is located in the district of Ehlanzeni in Mpumalanga. Malalane is the municipal headquarters, with 33 wards and a municipal council. It has a total area of 4787 km2 (see figure 3.1), a population of 390 610 people, a population density of 82 km2, and 131 368 households. Mpumalanga, as a province, is estimated to contribute 9% to the agricultural economy (Nkomazi Local Municipality, 2021). The municipality of Nkomazi stands at 313 m above sea level, and the climate of Nkomazi is rated as mild and temperate. The summers have much more rainfall as compared to winter. The annual mean temperature is 21.7 ° C. Precipitation here is about 716 mm per annum (Nkomazi Local Municipality, 2021).

The Nkomazi region's agricultural activities are dominated by banana farms and sugar cane farms, with major farm operators such as the Crooks Brothers and the TSB. Sugar from the TSB is used in other food production activities in the area. The dominance of sugar cane in the province's Lowveld regions restricts prospects for further production in the district of Ehlanzeni for agricultural and agro-processing (Nkomazi Local Municipality, 2021).

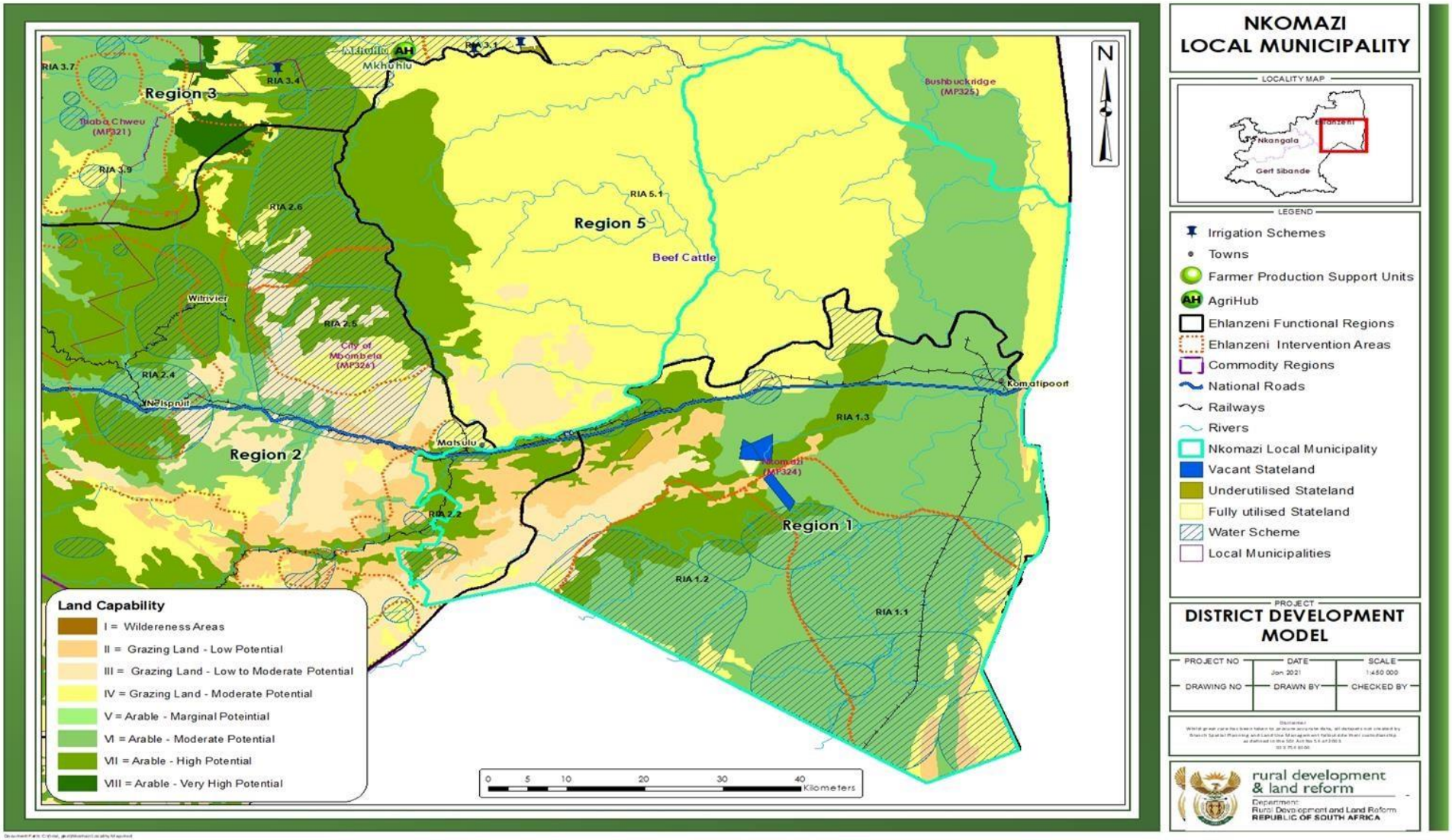


Figure 3.1 Nkomazi Map

Key Statistics 2011

Total population	393,030
Young (0-14)	35,4%
Working Age (15-64)	60,5%
Elderly (65+)	4,1%
Dependency ratio	65,4
Sex ratio	89,9
Growth rate	1,61% (2001-2011)
Population density	82 persons/km2
Unemployment rate	34,2%
Youth unemployment rate	42,3%
No schooling aged 20+	25,6%
Higher education aged 20+	6,7%
Matric aged 20+	25,6%
Number of households	96,202
Number of Agricultural households	28,004
Average household size	4,1
Female-headed households	45,6%
Formal dwellings	92,5%

Housing owned/paying off	65,6%
Flush toilet connected to sewerage	7,7%
Weekly refuse removal	20,3%
Piped water inside the dwelling	21%
Electricity for lighting	83,3%
Total population	393,030

Obtained from: Local Municipality | Statistics South Africa (statssa.gov.za) NKOMAZI LOCAL MUNICIPALITY STATICS

(Local Municipality | Statistics South Africa (statssa.gov.za))

AGRICULTURAL HOUSEHOLDS	
Type of activity	Number
Crops only	0
Animals only	11 533
Mixed farming	5179
Other	831

(Census 2011)

INCOME CATEGORY OF AGRICULTURAL HOUSEHOLDS	
Annual income category of household heads	Number
No income	10102
R1-R4800	1569

R4801-R38400	12718
R38401-R307200	2710
R307201	173
Unspecified	732

(Census 2011)

POPULATION GROUPS	
Group	Percentage
Black African	97,7%
Colored	0,2%
Indian/Asian	0,3%
White	1,6%
Other	0,1%

(Census 2011)

SEX AND AGE DISTRIBUTION		
Age	Males	Females
0-4	6,2%	6,3%
5-9	5,5%	5,6%
10-14	5,9%	5,9%
15-19	6,2%	6,2%

20-24	5,5%	5,8%
25-29	4,5%	5%
30-34	3,2%	3,7%
35-39	2,5%	3,1%
40-44	1,9%	2,6%
45-49	1,6%	1,6%
50-54	1,2%	1,5%
55-59	1%	1,3%
60-64	0,7%	1%
65-69	0,5%	0,7%
70-74	0,4%	0,7%
75-79	0,2%	0,5%
80-84	0,2%	0,4%
85+	0,2%	0,3%

(Census 2011)

LANGUAGES	
Language	Percentage
Afrikaans	1,4%
English	1,1%

IsiNdebele	0,1%
IsiXhosa	0,1%
IsiZulu	0,6%
Sepedi	0,1%
Sesotho	0,1%
Setswana	0,1%
Sign Language	0,1%
SiSwati	88%
Tshivenda	0,2%
Xitsonga	6,7%
Other	0.9%
Not Applicable	0,5%

(Census 2011)

MARITAL STATUS	
Group	Percentage
Married	12,2%
Living together like married partners	11,4%
Never married	72,9%
Widower/Widow	2,5%

Separated	0,7%
Divorced	0,2%

(Census 2011)

HIGHEST EDUCATION LEVEL (ALL AGES)	
Group	Percentage
No Schooling	4,6%
Some Primary	43,8%
Completed Primary	6,8%
Some Secondary	31,6%
Completed Secondary	11,7%
Higher Education	1,1%
Not Applicable	0,4%

(Census 2011)

GENDER DISTRIBUTION	
Sex	Percentage
Female	52,7%
Male	47,3%

(Census 2011)

EMPLOYMENT FOR THOSE AGED 15-64

Employment Status	Number
Employed	72588
Unemployed	37881
Discouraged Work Seeker	17651
Not Economically Active	109557

(Census 2011)

AVERAGE HOUSEHOLD INCOME	
Income	Percentage
None income	16,8%
R1 - R4,800	7%
R4,801 - R9,600	12,7%
R9,601 - R19,600	23%
R19,601 - R38,200	19,8%
R38,201 - R76,4000	9,4%
R76,401 - R153,800	5,6%
R153,801 - R307,600	3,5%
R307,601 - R614,400	1,5%
R614,001 - R1,228,800	0,3%
R1,228,801 - R2,457,600	0,1%

R2,457,601+	0,1%

(Census 2011)

3.5. STUDY POPULATION

The researcher selected women entrepreneurs in Nkomazi because they contribute to job creation and socio-economic development. The majority of women in rural areas work in agriculture-related businesses, and the researcher was interested in learning how these women ran their businesses, as well as examining their business performance and determining the challenges they faced. The goal was to help determine the nature and scope of these challenges.

3.5.1. ELIGIBILITY CRITERIA

Women entrepreneurs had to be 18 years old or older to participate in this study because that is the legal working age. They had to live in the Nkomazi Local Municipality, work in the formal or informal sector, and have a business that had been open for at least six months. Because such business owners are accustomed to closing doors and moving on, they needed a minimum amount of experience to base their responses on.

3.5.2. SAMPLING METHOD

A sampling method is a technique for selecting a sample population in research (Brynard *et al*., 2014). Women entrepreneurs in Nkomazi Local Municipality were chosen for the study using a convenience sampling method (Etikan *et al*., 2016) in order to achieve a high level of validity and reliability. The researcher and her research assistant were familiar with Nkomazi's women's businesses as well as the pool of the potential respondents. The research assistant is a former student who studied the Nkomazi Local Municipality previously. Furthermore, the researcher had previously conducted similar studies that allowed her to meet a large number of women entrepreneurs in Nkomazi. The researcher hoped that respondents would be able to provide her with reliable and valid information that was free of bias and error. Convenience sampling was an effective method for reaching out to respondents in Nkomazi, particularly hawkers.

3.5.3. SAMPLE SIZE

A sample, according to Saunders *et al*., (2009), is a small group of people from a population who take part in a survey and whose results are universally applied to the entire population. The larger the sample size, the more precise the results will be (Oribhabor & Chioma, 2019). According to Singh and Masuku (2014), the researcher should be careful when attempting to determine the sample size because good results are dependent on it. The Raosoft sample size calculator was used on a suggested population size of 20 000, with a confidence level of 95% (5% error may be tolerated) and an 80% response distribution because the exact number of women entrepreneurs in Nkomazi Local Municipality is unknown (Raosoft, 2021). A sample size of 243 was recommended by the Raosoft sample size calculator.

3.6. DATA COLLECTION

Data collection is a set of practical actions that include methods and instruments to collect information from a sample population (Creswell, 2003). According to Richmond (2006), the data gathered should be sufficient to respond to the research questions. A researcher should avoid gathering either too little or too much data to answer the question. He or she should also avoid data that cannot answer the research question and data that contradicts the research question and answers. According to Richmond (2006), data collection is the process in which the researcher must ensure that each step is successful.

3.6.1. DATA COLLECTION INSTRUMENT

An instrument is a tool that is used to collect data from a sample population. Document review, assessment, questioning, measuring, or a combination of techniques are examples of data collection instruments (Abawi, 2013). The data was collected from a sample of women entrepreneurs in Nkomazi using a questionnaire. The questionnaire, according to Godwin & Harry (2010), is the most widely used instrument in a survey and quantitative research. According to Saunders *et al*., (2009), the most appropriate tool for completing the questionnaire in business sciences and management is a survey using a questionnaire.

3.6.2. QUESTIONNAIRE

The survey has been defined in several ways. In this study, a questionnaire is a set of questions designed to elicit responses from respondents about the phenomenon being studied. The information is gathered by respondents filling out the questionnaire and answering the questions (Oribhabor & Chioma, 2019). In this context, there are three types of variables: opinion, behavior, and attribute. In terms of the opinion variable, respondents express their views on the question, their beliefs and perceptions, and whether they are correct or incorrect.

Behavioral variables are focused on how people interact within their organizations and can include past, present, and future information. Ultimately, attribute captures the respondents' profiles (Oribhabor & Chioma, 2019). The questionnaire in this study included opinion and attribute variables, intending to gather information about the profiles of respondents and their businesses, as well as seeking women entrepreneurs' opinions on the contextual factors that influence women entrepreneurship in Nkomazi. A well-designed questionnaire provides answers to research questions, accomplishes research goals, and catalyzes valid and reliable results (Oribhabor & Chioma, 2019).

The researcher should better comprehend the questionnaire in the same way as the respondents, according to Saunders *et al*., (2009). This improves the validity and reliability of the survey while also allowing respondents to provide more detailed information. There were two types of questions on the questionnaire: biographical questions and Likert scale questions. According to Maree (2007) and Saunders *et al*., (2009), questions and answers involving evaluation and opinion typically employ a Likert-style rating scale, in which respondents are asked to rate their level of response to a statement.

In the research process, language plays an important role. The respondents must be able to understand the questionnaire and data collection; otherwise, the results will be muddled (Usunier, 1998; Oribhabor & Chioma, 2019). The questionnaire was written in English, a language that most Nkomazi residents, including women entrepreneurs, do not understand. They can all, however, speak and write SiSwati (mother tongue). To aid comprehension and avoid misunderstanding, the questionnaire was translated into SiSwati. The questionnaire was created by the researcher, who discussed it with a colleague before submitting it to her supervisors, who suggested some changes. For ethical considerations, validity, and reliability, the questionnaire was sent to the UMP ethics

committee. Some revisions and resubmissions were suggested by the ethics committee. The changes were made following the recommendations of the research ethics committee, and the resubmitted proposal was given ethical approval by the committee.

3.7. DATA ANALYSIS

After coding, capturing, and cleaning, the data met the standard criteria and were ready to process in data analysis. The researcher used the SPSS software's Frequency counts and binary logistics to analyze the data. Data analysis is the process of converting complex data into a usable summary, organizing and examining the data to look for patterns, trends, and correlations, and providing results that answer the research question(s) and allow conclusions to be drawn (Babbie & Mouton, 2001; Vijaymohanan Pillai,2008). Data analysis is a crucial stage in the research process because it results in answers to the research questions (Blaikie, 2003). Quantitative research is linked to statistical data analysis, which, when done correctly, can yield excellent results (Bryman & Cramer, 1999). In the social sciences and business, SPSS is the most appropriate software program for analyzing quantitative data.

It generates output that includes statistical analytical content such as tables, graphs, and charts using Syntax files (Wagrer, 2010; Jensen & Laurie, 2016). In the fields of business, social sciences, and government, Jensen and Laurie (2016) recommend using SPSS for quantitative data analysis. It can produce concise results for comparisons, analyze variable correlations, and compare different categories. Descriptive statistics were used to analyze and interpret the data in this study, displaying frequencies and cumulative percentages.

Objective 1

For analyzing data for objective 1, frequency counts were used to obtain results. Frequency tables are a great starting place for summarizing and organizing data. Once one has a set of data, they may first want to organize it to see how often each value occurs in the set. Frequency tables can be used to show either quantitative or categorical data.

Objective 2 and 3

The study used binary logistic regression to analyze and interpret data. Using logistic regression, one can see how well one's sequence of predictor variables predicts or describes their categorical dependent variable. It assesses the 'goodness of fit' of their model (set of predictor variables) and gives one an indication of its suitability. It gives one an idea of the relative importance of each predictor variable, as well as the interaction between them. It gives a summary of the accuracy of the model-based case classification, allowing for the calculation of the model's sensitivity and specificity, as well as positive and negative predictive values. The distribution of scores for the predictor variables is not assumed in logistic regression; however, it is sensitive to extreme correlations among the predictor variables. Multicollinearity is the term for this. Outliers can also have an impact on the outcomes of logistic regression.

When the dependent variable is categorical or nominal, logistic regression is used. The effect of multiple independent variables presented simultaneously to predict membership in one of the two dependent variable categories is determined by binary logistic regression. One cannot predict a numerical value for the dependent variable using logistic regression because it is dichotomous, so the regular regression least-squares deviations criteria for the perfect suited approach of reducing error around the line of best fit is ineffective (it is impossible to calculate deviations with binary variables). Instead, logistic regression uses binomial probability theory, in which only two values are predicted: that the probability (p) is 1 rather than 0, indicating that the event/person belongs to one of two groups. The maximum likelihood (ML) method is used in logistic regression to create the bestfitting equation or function, which greatly increases the possibility of classifying the observed data into the appropriate category given the regression coefficients. Logistic regression, like multiple regression, creates a coefficient 'b' that indicates how much each independent variable contributes to variations in the dependent variable.

The primary objective is to correctly predict the outcome category for individual cases using the simplest model possible. To achieve this, a model (i.e. an equation) is built that includes all predictor variables that can be used to predict the response variable.

The Purpose of Binary Logistic Regression

1. The logistic regression predicts group membership

- The results of the analysis are presented as an odds ratio because logistic regression calculates the probability of success versus the probability of failure.

- The influence of multiple independent variables presented at the same time is determined using logistic regression to predict membership in one of the two dependent variable categories.

2. The logistic regression also provides the relationships and strengths among the variables Assumptions of (Binary) Logistic Regression

    - Logistic regression does not assume that the dependent and independent variables have a linear relationship.

    -Logistic regression assumes that the independent variables are linear and that the dependent variable has log odds.

    - Within each group, the independent variables do not have to be interval, normally distributed, linearly related, or of equal variance.

    -Homoscedasticity isn't necessary. The residuals (error terms) do not have to be normally distributed.

    - In logistic regression, the dependent variable is not evaluated on an interval or ratio scale.

    -The binary logistic regression requires a dichotomous (2-category) dependent variable. The categories (groups) as a dependent variable must be mutually exclusive and exhaustive; a case can only be in one group and every case must be a member of one of the groups.

    - Because peak coefficients using an ML technique are large sample estimates, larger samples are required than for linear regression. It is suggested that each predictor has a minimum of 50 cases (Field, 2013)

    - Hosmer, Lemeshow, and Sturdivant (2013) recommend a minimum sample size of 10 observations per independent variable in the model, but caution that if possible, a sample size of 20 observations should be sought.

    - Leblanc & Fitzgerald (2000) recommend a sample size of 30 observations per independent variable.

Log Transformation

The log transformation is the most popular of the various types of transformations used to approximate normality in skewed data.

- Skewed distributions were brought closer to normality using log transformations and sq. root transformations. As a result, what we're about to do is commonplace.

One can link the normal regression equation with this log transformation of the p values to a log distribution. The log distribution (or logistic transformation of p) is also known as logit of p or logit (p).

The dependent variable in logistic regression is a logistic transformation of the odds, known as logit:

$$\log(odds) = \text{logit}(P) = \ln\left(\frac{P}{1-P}\right)$$

If we take the above dependent variable and add a regression equation for the independent variables, we get a logistic regression:

$$logit(p) = a + b_1x_1 + b_2x_2 + b_3x_3 + \ldots$$

Equation

$$P = \frac{\exp(a + b_1x_1 + b_2x_2 + b_3x_3 + \ldots)}{1 + \exp(a + b_1x_1 + b_2x_2 + b_3x_3 + \ldots)}$$

In the equation above P can be calculated with the following formula where:

P= the probability that a case is in a particular category
Exp= the exceptional function (approximately 2.72) a=

the constant or intercept of the equation and b= the coefficient or slope of the predictor variables

Hypothesis Test

In logistic regression, hypotheses are of interest:

- **the null hypothesis**, which is when all the coefficients in the regression equation take the value zero, and
- **The alternate hypothesis** that the model currently under consideration is accurate and differs significantly from the null of zero i.e. gives significantly better than the chance or random prediction level of the null hypothesis.

Likelihood Ratio Test for Nested Models

A -2LL ratio is used in the likelihood ratio test. It's a test of the significance of the difference between the likelihood ratio (-2LL) for the researcher's model with predictors (also known as model chi-square) and the likelihood ratio for the baseline model with only a constant.The researcher's model with the predictors is substantially different from the one with the constant only (all 'b' coefficients being zero) when significance is at the.05 level or lower. When compared to the null model, it measures how well the explanatory variables fit. The significance of this ratio is determined using the Chi-square test.

3.8. SECONDARY DATA COLLECTION

Secondary data refers to what is already known about the phenomenon being studied. Secondary data provided crucial information to the researcher, guiding him and assisting him in answering the research question and determining the research goal (Babbie & Mouton, 2001). The positivist philosophy that underpins this research assumes that one builds on existing theories to arrive at new knowledge; it also assumes that existing and new knowledge are inextricably linked (Oribhabor & Chioma, 2019). Books, conferences, course notes and handouts, encyclopedias, government gazettes, government publications, the internet, journal and magazine articles, legislation, newspaper articles, and theses and dissertations were all used to gather secondary data.

3.9. DELINEATION OF THE RESEARCH

a) Boundaries of the research

- The research focused on the contextual factors influencing women entrepreneurship in Nkomazi Local Municipality, Mpumalanga.
- The study was limited to women entrepreneurship in Nkomazi Local Municipality.
- The study was limited to English as an academic language
- SiSwati was used as the language of communication during data collection because most of the women do not speak English. SiSwati is the mother tongue in Nkomazi, though English, Xitsonga, and IsiZulu are also understood.

b) Limitations and challenges

Financial resources were limited and it was difficult to cover the expenses related to gathering data traveling, paying the researcher assistant, photocopying, etc. Time was limited and a constraint, although the data was collected in less than 2 months. It was also a challenge meeting some farmers because some would reschedule appointments on the 11^{th} hour resulting in wasted resources.

3.10. RELIABILITY

When any threats to bias or random error are removed from measurement, it becomes reliable (Mitchell & Jolley, 2007). A research instrument is reliable if another researcher can perform the same study using the same methodology and come up with the same results at a later date (Wisker, 2001). The researcher conducted a pilot study to assess the validity of this study before starting the study correctly to ensure that the instrument is reliable. A pilot study ensures that the survey questions are clear and understandable, allowing for the collection of reliable data and results (Mitchell & Jolley, 2007). It also aids the researcher in estimating how long the questionnaire will take to complete. It can even give the researcher an idea of what kinds of problems he or she might face, allowing him or her to prepare for them. The pilot study included 20 female entrepreneurs.

3.11. VALIDITY

When an instrument measures what it is supposed to measure, it is said to be valid (Mitchell & Jolley, 2007). Appleton (1995) believes that an instrument's validity is determined by the relationship between the research questions and the research goals, which leads to an appropriate conclusion. Validity can also be determined by comparing the results of two different assessments: if the results are the same, the instrument used to measure the construct is appropriate, and the validity is high. To determine the degree of validity, a researcher can conduct a pilot study and statistically analyze the data. The results of research instruments that are well-built have a high level of validity. The instrument's ability to collect reliable and valid data has been verified by the supervisor and the University of Mpumalanga (UMP) ethics committee.

CHAPTER FOUR: DATA PRESENTATION AND DISCUSS OF FINDINGS

The research design and methodology that guide the study were discussed in the previous chapter. The data will be covered in this section, and the conclusions drawn from it will be discussed. In quantitative design, data presentation is the process of summing complex raw data in table or chart form to make it easier to interpret and determine its significance (Denscombe, 2007). Data presentation, according to Vijaymohanan Pillai (2008), entails arranging and interpreting data to arrive at a thorough meaning that is readily available, visually and/or textually. The findings are discussed to answer the research questions and achieve the research objectives. The goal of discussing the findings, according to the University of Southern California (2017), is to interpret and explain the significance of the findings in light of what is already known about the phenomenon under investigation, and to see if there is anything previously unknown that can be considered new knowledge.

Socioeconomic background

		Age	Marital Status	Education	Monthly Income	Family Size	Type of Farming	Part of Cooperative Group	Source of Income
N	Valid	250	250	250	250	241	250	250	250
	Missing	0	0	0	0	9	0	0	0

Table 1: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-28	62	24.8	24.8	24.8
	29-38	98	39.2	39.2	64.0
	39-48	88	35.2	35.2	99.2
	49-58	2	.8	.8	100.0
	Total	250	100.0	100.0	

The participants' ages ranged from 18 to 64 years old, with a mean age of 40 and a majority (39.2%) in the age group of 29-38 years old, according to the results shown in this table. There is a link between respondents' age and their involvement in entrepreneurship. It indicates that as women mature, they get more involved in business, and as they become older, they become less active. According to these statistics, people between the ages of 18 and 48 (99.2%) are more likely to engage in entrepreneurial activities than people between the ages of 49 and 58. (0.8%). This is unsurprising given that persons between the ages of 18 and 48 are more energetic and active than their elders and can better withstand the pressures of owning a business.

It's encouraging to see young people in business because it means more young people will be selfsufficient. According to Robinson *et al*. (2009), there is a peak age for starting a business: entrepreneurs are typically in their thirties and forties. Entrepreneurship is concentrated among individuals in mid-career, i.e. between 35 and 45 years of age, according to research findings. This contrasts with the common perception that entrepreneurship is primarily the domain of the very young, who are presumably unrestricted, willing to take risks, have low discount rates, and are unafraid to question established ways of doing things.

Table 2: Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	22	8.8	8.8	8.8
	Married	197	78.8	78.8	87.6
	Divorced	4	1.6	1.6	89.2
	widowed	27	10.8	10.8	100.0
	Total	250	100.0	100.0	

The table below depicts the distribution of respondents by marital status. The majority of the respondents (78.8%) were married; 8.8% were single; and only 1.6% were divorced. The findings reveal that married women are the most successful businesses. It's possible that married women entrepreneurs had greater financial power than other women (21.2% overall), or that they benefited from their husband's motivation or influence. Regardless of their degree of education, the other groups of women, those who are single (8.8%), separated, divorced, or widowed (12.4%), may be single parents and breadwinners who have turned to business to protect their money and support their families.

According to the United States Agency for International Development (2009) and Coldham (2013), the 1994 genocide killed a large number of men, forcing the surviving wives to turn to entrepreneurship to support their families. Only 22 women out of 250 were single, indicating that society views single women as too weak to conduct business or hold political positions, preferring to confine them to housekeeping and reliance on men, according to a study by Noyoo (2008).

Table 3: Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Illiterate	62	24.8	24.8	24.8
	Primary	98	39.2	39.2	64.0
	Secondary	88	35.2	35.2	99.2
	Graduate	2	.8	.8	100.0
	Total	250	100.0	100.0	

The table shows respondents according to their education level, the majority of the participants have a primary training (39.2%), followed by participants with a secondary level of training (35.2%) with very few participants who have a tertiary qualification or having graduated from university or college. Knowledge, skills, motivation, and self-confidence, as well as problem-solving ability, commitment, and discipline, are all likely to be linked to education.

Higher education is expected to improve people's ability to solve problems and take advantage of opportunities (Khera *et al.*, 2017). Furthermore, it is thought that entrepreneurs with higher educational qualifications will make better quality decisions to manage a company in a way that reduces the risk of failure (Chen *et al.*, 2017). As a result, businesses owned and managed by entrepreneurs with higher education have a higher success rate than their counterparts (Mozumdar *et al*., 2020).

Table 4: Monthly Family Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-1583	62	24.8	24.8	24.8
	1584-7167	98	39.2	39.2	64.0
	7168-16417	88	35.2	35.2	99.2
	16418-33333	2	.8	.8	100.0
	Total	250	100.0	100.0	

The table classifies the respondents according to their monthly income, the majority of women being 39.2% shows that they receive between R1584 and R7167 per month for their upkeep, followed by women who get at least R7168 to R16417 and very few women (0.8%) receive more than R16418 per month, this demonstrates why most women are motivated to start businesses: they don't have enough money to support themselves and their families monthly. These motivational factors have been proven in the literature to play a key role in the successful creation and development of businesses.

Poverty and empowerment are inextricably linked. According to Taylor & Pereznieto (2014), an increase in women's economic status (in this case, monthly income) and active economic involvement contribute to empowerment. Poverty limits investment, savings, and decision-making opportunities in these areas. While enhancing economic status through access to income and assets will help to alleviate poverty, it will not suffice to empower people. What matters is that women are actively involved in the process, that they are agents of economic change, and that they have control over their lives. Women from higher-income families are more likely to pursue entrepreneurship opportunities, whereas those from lower-income families are more likely to be motivated by necessity. As a result, high-income families have the financial resources to help entrepreneurs find new opportunities. Women's economic empowerment can be achieved through business. When a woman comes from a wealthy family, she is likely to be an entrepreneur herself (Sushakar & Temilselvi, 2007).

Table 5: Family Size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2-4	224	89.6	92.9	92.9
	5-10	14	5.6	5.8	98.8
	11-15	3	1.2	1.2	100.0
	Total	241	96.4	100.0	
Missing System		9	3.6		
Total		250	100.0		

Most participants in the above table have a family size of 2-4 members per household (89.6%), and the rest of the participants have more than 5-10 members and 11-15 members respectively, the above results show that women with the less family responsibility are most likely to venture into business than those who have to manage bigger households, the reality is that it's impossible to assume the larger share of responsibility for rearing young children and at the same time start up a company.

Table 6: Type of Farming

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vegetable	50	20.0	20.0	20.0
	Poultry	7	2.8	2.8	22.8

	Banana	75	30.0	30.0	52.8
	Sugarcane	113	45.2	45.2	98.0
	Cotton	5	2.0	2.0	100.0
	Total	250	100.0	100.0	

The area Nkomazi has shown to be very suitable for planting sugarcane hence 113 respondents (45.2%) have ventured into sugarcane farming, this is followed by banana farmers (30%), vegetable farmers, poultry, and cotton respectively.

Table 7: Part of Cooperative Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	250	100.0	100.0	100.0

The above results show that none of the women were part of a social group or a cooperative when probed the women outlined that they did not know such formations due to the lack of access to information. Many micro and small women entrepreneurs, according to Lazo (2015), are not affiliated with women's groups and coalitions that promote women's economic rights. Only a comparatively tiny percentage of women in the informal economy and MSMEs are organized, according to available data, usually through cooperatives or politically motivated organizations that do not necessarily advocate for women's issues in the sector.

Table 8: Source of Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Husband	99	39.6	39.6	39.6
	family members	37	14.8	14.8	54.4
	Friends	26	10.4	10.4	64.8
	NGO's	1	.4	.4	65.2
	Church	4	1.6	1.6	66.8
	Savings	83	33.2	33.2	100.0
	Total	250	100.0	100.0	

The table below depicts the distribution of respondents by marital status. The majority of the respondents (78.8%) were married; 8.8% were single; and only 1.6% were divorced. The findings reveal that married women are the most successful businesses. It's possible that married women entrepreneurs had greater financial power than other women (21.2% overall), or that they benefited from their husband's motivation or influence. Regardless of their degree of education, the other groups of women, those who are single (8.8%), separated, divorced, or widowed (12.4%), may be single parents and breadwinners who have turned to business to protect their money and support their families.

The conclusion that husbands were the predominant source of capital contradicts Shapiro et al., (201), who found that men contributed only a little amount of money to their spouse's business startup. However, the findings of this study back up what has been widely reported in the literature: women use their savings and take out loans from family and friends to establish and grow businesses due to a lack of access to capital (Singh & Raghuvanshi, 2012; Chinomona & Maziriri, 2015;

Uwantege & Mbabazi, 2015). The result that few women start their firm with a bank or microlender loan is consistent with earlier studies showing that women entrepreneurs have a tough difficulty getting loans from financial institutions (the United States of America. United States Agency for International Development, 2009; National Institute of Statistics of Rwanda 2012; Thébaud & Sharkey, 2014; Deborah *et al.*, 2015; Matsoso & Iwu, 2016).

4.1. OBJECTIVE 1: TO ANALYZE THE CONSTRAINTS OF WOMEN ENTREPRENEURSHIP IN AGRICULTURE

Results & Discussion

Table 9: Lack of Funding/Capital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	3.2	3.2	3.2
	Disagree	70	28.0	28.0	31.2
	Neutral	16	6.4	6.4	37.6
	Agree	141	56.4	56.4	94.0
	strongly agree	15	6.0	6.0	100.0
	Total	250	100.0	100.0	

According to the literature, one of the most significant barriers to financing for women entrepreneurs in developing countries is a lack of capital (Jamali, 2009; Halkias *et al*., 2011; Maden, 2015; Ramadani *et al*., 2015; Naguib & Jamali, 2015). This is partly because entrepreneurs are considered high-risk (Thampy, 2010). Access to credit is difficult for all entrepreneurs, especially women entrepreneurs, due to information asymmetry, a lack of credit history, and insufficient collateral (Panda, 2018; Sandhu *et al*., 2012; Thampy, 2010). The lack of financing options such as venture capital, private equity, and microcredit exacerbates the problem. Entrepreneurs are exploited by

opportunistic money lenders who charge high-interest rates and defraud them (Sandhu *et al*., 2012). This is evident from this study because the majority of the women (156 women, 62.4%) agree that the lack of funding or capital is a factor that affects their businesses and hinders them from becoming successful entrepreneurs like their male counterparts.

Table 10: Access to Information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	18	7.2	7.2	7.2
	Neutral	1	.4	.4	7.6
	Agree	154	61.6	61.6	69.2
	strongly agree	77	30.8	30.8	100.0
	Total	250	100.0	100.0	

The findings in the Table show that the vast majority of respondents (92.4%) agreed with the statement that a lack of information, like access to and knowing how to use the internet, is a challenge facing women entrepreneurs in Nkomazi. In contrast only (7.2%) respondents disagreed with the statement, with just (0.4%) respondents choosing to be neutral. Because many government services, such as business registration and tax payments, can be done online, the respondents believe that information is very important in business today. Unfortunately, most female entrepreneurs are unable to use a computer due to a lack of knowledge and skills. It could be argued that they can ask someone else for help, but this is unlikely to be sustainable because different people have different commitments and are not always available to help. The fact that 7.2% of respondents disagreed with the statement that a lack of information is not a barrier to women entrepreneurs could be attributed to those who have completed tertiary education and can use the training they received.

Lack of information is regarded as a major stumbling block for women entrepreneurs, as it would generally harm them and their businesses. It is extremely difficult to start a business without adequate and reliable information. Business people require data for business development, but they also require this data to build and maintain their organizations (Roomi *et al*., 2009). Sawe (2008) backed this up by stating that female business visionaries aren't looking for data on the progress of private businesses.

223 (89.2%) of 250 participants strongly disagreed that the lack of self-confidence contributes towards women not being successful entrepreneurs. Entrepreneurs who are confident in themselves have a better chance of starting and succeeding in a new business. They believe they can succeed because of their self-efficacy. This encourages them to take a chance on a new venture. Success in that business boosts one's self-esteem even more. Women, according to Kirkwood (2009), have lower self-confidence in their entrepreneurial abilities than men. This finding is consistent with previous research. Women relate to entrepreneurship less than men once they have established a business and are hesitant to call themselves entrepreneurs. Entrepreneurial self-confidence grew for some women as their businesses grew. For other women, it appears to remain a barrier, limiting their ability to obtain credit and limiting their growth ambitions.

Table 11: Lack of Work-Family Balance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	20	8.0	8.0	8.0
	Disagree	135	54.0	54.0	62.0
	Neutral	2	.8	.8	62.8
	Agree	77	30.8	30.8	93.6
	strongly agree	16	6.4	6.4	100.0

	Total	250	100.0	100.0	

The findings above show that a majority of the respondents (62.0%) disagreed with the statement that work family-balance is a challenge facing women entrepreneurs in Nkomazi. However, (37.2%) respondents agreed with the statement, and (0.8%) were neutral. These results show that there has been a positive change in society's cultural beliefs since families and husbands now allow females to travel while doing business.

These findings contradict those of a study published by the United Nations in 2014, which found that families and husbands do not allow a woman to travel alone on business. Makombe (2006) observed that if women obtain permission to travel in advance from their husbands, this would be culturally acceptable in Rwanda due to the respect accorded to husbands in a family. However, the findings suggest that most men no longer refuse their wives' requests to travel, and instead choose to accompany them for protection, as Makombe (2006) suggested. This is unquestionably a step forward for the economy and gender equality.

Women entrepreneurs in Muslim countries such as Pakistan face a different situation because they are not permitted to travel without men (Tambunan, 2009). When men have other obligations that inhibit them from traveling with their wives, this is a challenge in business.

Table 12: Access to Opportunities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.2	1.2	1.2
	Disagree	99	39.6	39.6	40.8
	Neutral	11	4.4	4.4	45.2
	Agree	97	38.8	38.8	84.0
	strongly agree	40	16.0	16.0	100.0

	Total	250	100.0	100.0	

The findings in Table show that (54.8%) respondents agreed with the statement that a lack of market opportunities is a challenge facing women entrepreneurs in Nkomazi. On the other hand (40.8%) respondents disagreed with the statement, with (4.4%) remaining neutral. The results show that the respondents view the available market opportunities differently since there is no significant difference between those who agreed and those who disagreed with the statement. Several research studies have highlighted the following obstacles which include access to capital, access to networks and market information, limited access to technology, poor educational background, lack of business training, lack of affordable business premises, stringent regulatory framework, lack of industry and entrepreneurial experience, and challenges related to family responsibilities (Mordi *et al.,* 2010; Derera *et al.,* 2014).

Table 13: Lack of Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	4.0	4.0	4.0
	Disagree	99	39.6	39.6	43.6
	Neutral	4	1.6	1.6	45.2
	Agree	124	49.6	49.6	94.8
	strongly agree	13	5.2	5.2	100.0
	Total	250	100.0	100.0	

The findings shown in the table above indicate that the vast majority of respondents (54.8%) accept that the lack of entrepreneurial experience is a challenge facing women entrepreneurs in Nkomazi.

A small number of respondents (43.6%) disagreed, with only (1.6%) of respondents remaining neutral on the issue. The fact that 54.8% of women entrepreneurs in Nkomazi view a lack of entrepreneurial experience as a problem affecting their businesses might be interpreted to mean that they believe that entrepreneurial experience can influence business success and that they feel they could do more if they had entrepreneurial skills.

According to Iwu & Noxpo (2015) and Musomandera *et al*., (2015), entrepreneurial education and training are key instruments that women entrepreneurs can use to manage successful businesses. Due to a lack of entrepreneurial experience, a large number of businesses fail to improve (Shahnawaz, 2015). According to Nxopo & Iwu (2015), women entrepreneurs face a lack of business experience when attempting to compete against men entrepreneurs who govern the business industry. Women's experience has been growing in any case since they were allowed to run businesses like men. In ten years, it is hoped that women entrepreneurs in Nkomazi will have gained enough business experience to compete with their male counterparts. According to Okafor & Amalu (2012), some female entrepreneurs choose to run businesses that do not demand much experience.

Table 14: Lack of Training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	38	15.2	15.2	15.2
	Neutral	4	1.6	1.6	16.8
	Agree	176	70.4	70.4	87.2
	strongly agree	32	12.8	12.8	100.0
	Total	250	100.0	100.0	

The table shows responses from 250 respondents whereby 83% of the respondents agreed that a lack of training is one of the constraints that majorly affect women entrepreneurs in agriculture, with

15.2% disagreeing with this fact and 1.6% deciding to remain neutral. The fact that most of the participants view this as a challenge shows that there is a need to deal with the element of training women entrepreneurs.

Women's businesses cannot survive the globalization of business without adequate education, skills, and training, with the emphasis on performance and coping with a constantly evolving macroenvironment (the United States of America). The United States Agency for International Development (USAID) published a report in 2009. According to a study conducted in Nairobi, women entrepreneurs improved their customer service and enhanced their customer base, income, and growth rate after receiving training (Odinga, 2012).

Education is the foundation of business success, as it removes feelings of inadequacy and boosts confidence. Women entrepreneurs who have received appropriate education are capable of dealing with business issues and leading businesses to success. If given a comprehensive training package, women entrepreneurs can cope with the business environment (Fellman, 2012). To empower prospective entrepreneurs and encourage youth to enter entrepreneurship, the US Agency for International Development (USAID, 2009) assumes that entrepreneurship should be trained from primary school to tertiary education. Employees of the government, non-governmental organizations (NGOs), and other stakeholders involved in women's enterprise development should work together to create a long-term platform for furthering women's participation in business (Fellman, 2012).

Table 15: Lack of Skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	17	6.8	6.8	6.8
	Neutral	1	.4	.4	7.2
	Agree	201	80.4	80.4	87.6
	strongly agree	31	12.4	12.4	100.0

	Total	250	100.0	100.0	

The findings shown in the Table, above, indicate that the vast majority of respondents (92.8%) accept that the lack of entrepreneurial skills is a challenge facing women entrepreneurs in Nkomazi. A small number of respondents (6.8%) disagreed, with only (0.4%) of respondents remaining neutral on the issue. The fact that 92.8% of women entrepreneurs in Nkomazi view a lack of entrepreneurial skills as a problem affecting their businesses might be interpreted to mean that they believe that entrepreneurial skills can influence business success and that they feel they could do more if they had entrepreneurial skills.

According to Botha *et al*., (2007) and Mboko & Smith-Hunter (2009), skill shortages can be divided into two categories: business skills and life skills. When it comes to women with business and life skills, men usually have the upper hand. There is a distinction between men and women when it comes to training and skills (Sandberg, 2003). Communication, personal management experience, bargaining, and problem-solving are all skills that women often lack in the workplace (Niemen *et al*., 2007). According to Botha *et al*., (2007), women strive to be entrepreneurs due to life skills, as there are no essential life skills such as self-confidence, affirmation, self-motivation, achievement focus, reliability, and communication skills that are required for business success. The second example is that women do not receive media attention because they lack the confidence to approach the media (Botha *et al*., 2007). Women should therefore be taught how to deal with the aforementioned skill gaps.

Table 16: Lack of Credibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	7	2.8	2.8	2.8
	Neutral	1	.4	.4	3.2
	Agree	169	67.6	67.6	70.8

	strongly agree	73	29.2	29.2	100.0
	Total	250	100.0	100.0	

A very high percentage of respondents (96.8%) agreed with the statement that lack credibility or collateral is a challenge facing women entrepreneurs in Nkomazi (2.8% disagreed with the statement, while (0.4%) respondents were neutral). Women previously had to depend on a male to obtain loans. A married woman had to ask her husband for a guarantee to apply for a loan, and some husbands agreed while others refused.

Women's property rights have been made a priority, but there is still a long way to go. Women entrepreneurs appear to want to own their property to eliminate the issue of guarantees. According to Cutura (2008), successful women entrepreneurs prioritize the acquisition of fixed assets to secure loans. The US Agency for International Development backs these findings (The United States Agency for International Development 2009). According to Nsengimana (2017), husbands are afraid to give their wives their home as collateral. Other organizations that provide loans to female entrepreneurs without requiring collateral are commendable, as this can assist women to start and expand their businesses (Uwantege & Mbabazi, 2015)

Table 17: Lack of Extension Support

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	3.2	3.2	3.2
	Disagree	10	4.0	4.0	7.2
	Agree	232	92.8	92.8	100.0
	Total	250	100.0	100.0	

The results indicate that most of the respondents (92.8%) agree with the statement that the lack of a support network is a challenge facing women entrepreneurs in Nkomazi (7.2%) disagreed with the statement, and 4.0% remained neutral). Suppliers, for example, are perceived to be exploiting respondents. Women appear to be required to pay cash for supplies and are not permitted to pay later, such as on a 30-day credit card. A moderate challenge for women entrepreneurs in Nkomazi appears to be a lack of support networks. This supports the findings of Thébaud and Sharkey (2014), who discovered that networks prefer to collaborate with men entrepreneurs over women entrepreneurs. Women entrepreneurs, according to Nsengimana (2017), lack the business language and skills necessary to negotiate good deals with networks.

Table 18: Constraints Index

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Constraints	44	17.6	17.6	17.6
	Medium Constraints	76	30.4	30.4	48.0
	High Constraints	130	52.0	52.0	100.0
	Total	250	100.0	100.0	

Out of a sample of 250 participants (women entrepreneurs), 130 of the women (52%) indicated that they have high constraints, with 76 of them (30.4%) saying they have medium constraints and 44 of them (17.6%) indicated that they have low constraints. Women entrepreneurs face a variety of challenges, according to Kumar & Jain (2014), including male dominance, family obligations, a lack of education, a lack of self-confidence, financial difficulties, limited mobility, and limited managerial skill. This study supports the findings of the table above, which show that the majority of women entrepreneurs face numerous challenges. In many cases, women started businesses because they had no other options for overcoming or alleviating poverty, rather than because they

wanted to own a business. Many women start businesses as a means of generating income to meet basic economic needs, whether because they are single mothers with no or limited financial resources to support their families. Alternatively, the spouse's income is insufficient to meet the family's basic needs (UDEC, 2002).

However, the majority of these women have been negatively socialized and lack the necessary assets to become effective and successful entrepreneurs. These assets, or forms of capital, are divided into three categories: human assets, financial assets, and social assets.

Table 19: Extension Support Services Index

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Weak Extension Support Service	201	80.4	80.4	80.4
	Presence of Extension Support Service	49	19.6	19.6	100.0
	Total	250	100.0	100.0	

In the above table, 201 participants (80.4%) agreed that there are weak extension support services, most of these farmers had either never had an extension officer come to their farm or they had only had a few visitations over a couple of years, however, 49 (19.6%) of the participants felt there was a presence of extension support meaning they had received services from a government official.

According to Mapunga (2012)'s research, extension services intended to instill both business and technical management skills in beneficiaries to improve business performance have not been well received by entrepreneurs. Information services, counseling and consulting, business linkages and networking, technological development and transfer, and marketing skills are among the extension services that have not been extended. As a result, business performance is generally subpar.

Extension services reduce the number of automobile SMEs that are unable to obtain financial assistance from financiers by addressing issues such as financial literacy, the preparation of bankable business proposals, and conducting business professionally and transparently.

4.2. OBJECTIVE 2: TO ASCERTAIN THE SOCIOECONOMIC FACTORS THAT INFLUENCE WOMEN'S ENTREPRENEURSHIP INTENTIONS

Results & Discussion Table 20: Summary Process

Case Processing Summary				
Unweighted Cases[a]		N	Percent	
	Included in Analysis	241	96.4	
	Missing Cases	9	3.6	
	Total	250	100.0	
Unselected Cases		0	.0	
Total		250	100.0	
a. If weight is in effect, see the classification table for the total number of cases.				
Dependent Variable Encoding				
Original Value	Internal Value			

Low Entrepreneurial Intention	0			
High Entrepreneurial Intention	1			

Table 21: Categorical Variables Codings

		Frequency	Parameter coding
Recoded Source of Income	Income not from Investment Savings	158	.000
	Income from Investment Savings	83	1.000
Recoded Age	Young	151	.000
	Matured	90	1.000
Recoded Education	No Education [No Formal/Primary]	151	.000
	Educated [Secondary/Tertiary/Postgraduate]	90	1.000
Recoded Monthly	Low Monthly Income [R0 -	151	.000

Income	R7167]		
	High Monthly Income [Above R7167]	90	1.000
Recoded Family Size	Small Family Size	224	.000
	Big Family Size	17	1.000
Recoded Farming Type	Non-Vegetable Farming	7	.000
	Vegetable Farming	234	1.000
Recoded Marital Status	Not Married	22	.000
	Married	219	1.000

Table 22: Classification Table

			Predicted Recoded & Categorized Entrepreneurial Intentions		Predicted
	Observed		Low Entrepreneurial Intention	High Entrepreneurial Intention	Percentage Correct
Step 0	Recoded & Categorized	Low Entrepreneurial	179	0	100.0

	Entrepreneurial Intentions	Intention			
		High Entrepreneurial Intention	62	0	.0
	Overall Percentage				74.3
	a. Constant is included in the model.				
	b. The cut value is .500				

In the Classification table, the overall percentage of correctly classified cases is 74.3%. In this case,

SPSS classified (guessed) that all cases would have high numbers for a Low Entrepreneurial Intention (only because there was a higher percentage of people in this category). This table is compared with the table below to check the improvement made to the model.

Table 23: Classification Table

			Predicted Recoded & Categorized Entrepreneurial Intentions		Predicted
	Observed		Low Entrepreneurial Intention	High Entrepreneurial Intention	Percentage Correct

Step 1	Recoded & Categorized Entrepreneurial Intentions	Low Entrepreneurial Intention	153	26	85.5
		High Entrepreneurial Intention	9	53	85.5
	Overall Percentage				85.5
	a. The cut value is .500				

When compared with the Classification table shown for Block 0, to see how much improvement there is when the predictor variables are included in our model, the model correctly classified 85.5% of cases overall (sometimes referred to as the percentage accuracy in classification: PAC), an improvement over the 74.3% in Block 0.The results displayed in the tables above were used to calculate the additional statistics on the sensitivity of the model. This is the percentage of the group that has the characteristic of interest that has been accurately identified by the model (the true positives). In this instance, we were able to correctly classify 85.5% of the people with Low Entrepreneurial Intention. In this case, the specificity is 85.5% (people with Low Entrepreneurial Intention by the model).

The positive predictive value is the percentage of cases that the model classifies as having the characteristic that is observed in this group. To calculate this for the current analysis, we divide the number of cases in the predicted=yes, observed=yes cell (53) by the total number in the predicted=yes cells (26+53=79) and multiply by 100 to give a percentage. This gives us 53 divided

by 79 × 100 = 67.08%. Therefore, the positive predictive value is 67.08%, indicating that of the people predicted to have Low Entrepreneurial Intention, our model accurately picked 67.08% of them. According to Wright (1995), the negative predictive value is the percentage of cases predicted by the model not to have the characteristic that is observed not to have the characteristic. In the current instance, the necessary values from the classification table are 153 divided by (153+9) × 100 = 94.4%.

Table 24: Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	192.096	6	.000
	Block	192.096	6	.000
	Model	192.096	6	.000

The Omnibus Tests of Model Coefficients gives us an overall indication of how well the model performs, over and above the results obtained for the above table, with none of the predictors entered into the model. This is referred to as a 'goodness of fit test. For this set of results, we want a highly significant value (the Sig. value should be less than .05). In this case, the value is .000 (which means p<.0005). Therefore, the model (with our set of variables used as predictors) is better than SPSS's original guess shown, which assumed that everyone would have a low entrepreneurial intention. The chi-square value, which we will need to report in our results, is 192.096 with 6 degrees of freedom.

Table 25: Model Summary

Step	-2 Log-likelihood	Cox & Snell R Square	Nagelkerke R Square
1	82.727[a]	.549	.808
a. Estimation terminated at iteration number 20 because maximum iterations have been reached. The final solution cannot be found.			

The table-headed Model Summary gives another piece of information about the usefulness of the model. The Cox & Snell R Square and the Nagelkerke R Square values indicate the amount of variation in the dependent variable explained by the model (from a minimum value of 0 to a maximum of approximately 1). These are described as pseudo-R square statistics, rather than the true R square values that are used in the multiple regression output. In this instance the two values are 0.549 and 0.808, suggesting that between 54.9% and 80.8% of the variability is explained by this set of variables.

Table 26: Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.0000	8	.875

The results shown in the table headed Hosmer and Lemeshow Test also supports the model as being worthwhile. This test, which SPSS states are the most reliable test of model fit available in SPSS, is interpreted very differently from the omnibus test discussed above. For the Hosmer-Lemeshow Goodness of Fit Test, the poor fit is indicated by a significance value less than .05, so to support our model we want a value greater than .05. In the table above the chi-square value for the HosmerLemeshow Test is 0.000 with a significance level of .875. This value is larger than .05, therefore indicating support for the model.

Table 27: Variables in the Equation

Step 1[a]		B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
	Marital Status(1)	-6.085	9016.974	.000	1	.999	.002	.000	.

	Age(1)	25.367	2806.264	.000	1	.993	103887830013.770	.000	.
	Family Size(1)	20.472	9280.517	.000	1	.998	777824244.368	.000	.
	Farming Type(1)	.754	15448.534	.000	1	1.000	2.126	.000	.
	Source of Income(1)	4.788	1.755	7.446	1	.006	120.115	3.854	3743.373
	Sum of Constraints	.684	.246	7.710	1	.005	1.981	1.223	3.210
	Constant	-42.466	17666.012	.000	1	.998	.000		

a. Variable(s) entered on step 1: Recoded Marital Status, Recoded Age, Recoded Family Size, Recoded Farming Type, Recoded Source of Income, and Sum of Constraints.

Values with a significance value greater than 05 in the variable of the equation table were used, and in this case, two variables contribute significantly: a source of income and the sum of constraints. The positive value of B in the table indicates that participants agreed that the source of income and the sum of constraints have an impact on their businesses. The Variables in the Equation table tell us how much each of our predictor variables contributes or how important they are. The test used

here is known as the Wald test, and the value of the statistic for each predictor is displayed in the Wald column. Look for values of less than.05. in the column labeled Sig. These are the variables that have a significant impact on the model's predictive ability.

There is only one significant variable in this case (sum of constraints p=0.005). The sum of constraints is the most important factor influencing women's entrepreneurship in this table. The model did not take into account the size of the family, the type of farming, or the source of income.

The sum of constraints in the table above the variable measuring showed a positive B value (0.648). This means that the fewer constraints a business owner has, the less likely they are to report them. The chances of someone saying the sum of constraints affects them are 1.981 times higher than those who say the constraints do not affect them. The confidence interval for our variable sum of constraints (OR=1.981) in the table above ranges from 1.223 to 3.210. So, while the calculated OR is 1.981, we can be 95% confident that the actual OR in the population is somewhere between 1.223 and 3.210, a wide range of values.

4.3. OBJECTIVE 3: TO ASCERTAIN THE IMPACT OF EXTENSION SUPPORT SERVICES ON WOMEN'S ENTREPRENEURSHIP INTENTIONS

Results & Discussion Table 28: Summary Process

Case Processing Summary				
Unweighted Cases[a]		N	Percent	
	Included in Analysis	250	100.0	
	Missing Cases	0	.0	
	Total	250	100.0	

Unselected Cases		0	.0	
Total		250	100.0	
a. If weight is in effect, see the classification table for the total number of cases.				
Dependent Variable Encoding				
Original Value	Internal Value			
Low Entrepreneurial Intention	0			
High Entrepreneurial Intention	1			

Table 29: Categorical Variables Codings

		Frequency	Parameter coding
Recoded Business Training	No Business Training Provided by Extension Service Support	242	.000

	Business Training Provided by Extension Service Support	8	1.000
Recoded Farm Training	No Farm Training Provided by Extension Service Support	242	.000
	Farm Training Provided by Extension Service Support	8	1.000

Table 30: Classification Table

			Predicted Recoded & Categorized Entrepreneurial Intentions		
	Observed		Low Entrepreneurial Intention	High Entrepreneurial Intention	Percentage Correct
Step 1	Recoded & Categorized Entrepreneurial Intentions	Low Entrepreneurial Intention	188	0	100.0

		High Entrepreneurial Intention	62	0	.0
	Overall Percentage				75.2
	a. Constant is included in the model.				
	b. The cut value is .500				

Table 31: Classification Table

			Predicted Recoded & Categorized Entrepreneurial Intentions		Predicted
	Observed		Low Entrepreneurial Intention	High Entrepreneurial Intention	Percentage Correct
Step 1	Recoded & Categorized	Low Entrepreneurial Intention	186	2	98.9
	Entrepreneurial Intentions				

		High Entrepreneurial Intention	15	47	75.8
	Overall Percentage				93.2
	a. The cut value is .500				

Table 32: Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	158.523	2	.000
	Block	158.523	2	.000
	Model	158.523	2	.000

The Omnibus Tests of Model Coefficients gives us an overall indication of how well the model performs, over and above the results obtained for the above table, with none of the predictors entered into the model. This is referred to as a 'goodness of fit test. For this set of results, we want a highly significant value (the Sig. value should be less than .05). In this case, the value is .000 (which means p<.005). Therefore, the model (with our set of variables used as predictors) is better than SPSS's original guess, which assumed that everyone would low entrepreneurial intentions. The chi-square value, which we will need to report in our results, is 158.523 with 2 degrees of freedom.

Table 33: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	121.541[a]	.470	.697

a. Estimation terminated at iteration number 20 because maximum iterations have been reached. The final solution cannot be found.

Table 34: Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.000	1	.997

For the Hosmer-Lemeshow Goodness of Fit Test, the poor fit is indicated by a significance value less than .05, so to support our model we want a value greater than .05. The significance value here is .997 and this shows support for the model, the chi-square for the model is 0.000 with 1 degree of freedom.

Table 35: Variables in the Equation

Step 1[a]		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
	Recoded Farm Training(1)	-28.414	13628.831	.000	1	.998	.000	.000	.

	Sum of Extension Support Services	5.192	.779	44.444	1	.000	179.803	39.075	827.367
	Constant	-54.436	7.884	47.670	1	.000	.000		
a. Variable(s) entered on step 1: Recoded Farm Training, Sum of Extension Support Services									

The Variables in the Equation table give us information about the contribution or importance of each of our predictor variables. In this case, we have two significant variables (sum of extension support services p=0.000 and recorded farm training p=0.000). In this table, the major factors influencing women's entrepreneurship are the sum of extension support services and farm training. Both of these variables showed a positive B value (28.414 and 5.192 respectively) this indicates that a decrease in the independent variable score will result in an increased probability of the case recording score in the dependent variable.

Table 36: Casewise List

Case	Observed	Predicted		Temporary Variable		
Selected Status[a]	Recoded & Categorized Entrepreneurial Intentions		Predicted Group	Resid	ZResid	SResid

166	S	H**	.075	L	.925	3.521	2.284
167	S	H**	.075	L	.925	3.521	2.284
168	S	H**	.075	L	.925	3.521	2.284
169	S	H**	.075	L	.925	3.521	2.284
170	S	H**	.075	L	.925	3.521	2.284
171	S	H**	.075	L	.925	3.521	2.284
172	S	H**	.075	L	.925	3.521	2.284
173	S	H**	.075	L	.925	3.521	2.284
174	S	H**	.075	L	.925	3.521	2.284
175	S	H**	.075	L	.925	3.521	2.284
176	S	H**	.075	L	.925	3.521	2.284
177	S	H**	.075	L	.925	3.521	2.284
178	S	H**	.075	L	.925	3.521	2.284
179	S	H**	.075	L	.925	3.521	2.284
180	S	H**	.075	L	.925	3.521	2.284
202	S	L**	.935	H	-.935	-3.808	-2.380

203	S	L**	.935	H	-.935	-3.808	-2.380

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.

b. Cases with standardized residuals greater than 2.000 are listed.

The last table in the output, labeled Case-wise List, gives you information about cases in your sample for whom the model does not fit well. Cases with ZResid values above 2 are shown in the table (showing case numbers 166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,202,203). Cases with values above 2.5 (or less than –2.5) should be examined more closely, as these are clear outliers (given that 99% of cases will have values between –2.5 and +2.5). You can see from the other information in the case-wise list that two of the cases (202 and 203) were predicted to be in the high entrepreneurial intentions, but in reality (in the Observed column) was found to answer the question with low entrepreneurial intentions. The remainder of the outliers were all predicted to answer low entrepreneurial intentions, but instead answered high entrepreneurial intention.

5. Implications of the study/results

The above results indicate that women tend to start their businesses as they mature, many young women are not able to run successful businesses due to a lack of skills, experience, start-up capital, and other constraints. More mature and older women are prepared to start businesses because the results show that they have fewer responsibilities such as caring for children; also, more matured women who are married are more likely to start a business because 78.8% of the women were married, and most of the women (39.6%) received their start-up capital from their husbands; women with a smaller household are also able to start and run a business because they do not have a large household, and women with a smaller household are also

Lack of funding appeared to be a problem for the majority of the women (56.4%), which will prevent women from starting their businesses because funding is required to run a successful business. Most women also lack access to information, which is a major impediment because you need proper and reliable information to start and run a successful business. A lack of information makes it incredibly difficult because you may end up using your land for things that are not profitable to you as an

entrepreneur. Since most commercial entrepreneurs prefer working with entrepreneurs who have a proven track record and a specific set of skills, women entrepreneurs often lose the opportunity that would have helped their business grow due to a lack of experience, skills, and opportunity.

The lack of extension support services is the biggest challenge for women entrepreneurs (98.2% of the women in the study agreed), and there is a limited exchange of technology from extension officers to farmers, which means farmers must rely on their indigenous knowledge, which does not always allow them to maximize profits, or they do not work on their practice at all. Due to a lack of extension support services, these entrepreneurs are unable to connect to local and international markets, causing them to close their businesses.

CHAPTER FIVE: SUMMARY AND CONCLUSION

5.1. LIMITATIONS

There are two major flaws in the research study. To begin, the study used a case study approach, focusing on contextual factors that influence women's agricultural entrepreneurship in a specific location in Mpumalanga's Nkomazi Local Municipality. As a result, this study excludes the perspectives of other women involved in agriculture entrepreneurship in other parts of South Africa, who play a critical role in food production and economic development in the country, as well as other women entrepreneurs who are not involved in agriculture. However, these women face their own set of challenges in their quest for empowerment in a patriarchal country. In addition, the women who took part in the study were identified using a non-random sampling technique (convenience). As a result, the findings of the study cannot be applied to the entire population of women in Mpumalanga who are involved in agriculture entrepreneurship. This study, on the other hand, fills a research gap in Nkomazi on women's economic empowerment and entrepreneurship in the agricultural sector. The research also lays the groundwork for future research in the field.

5.2. RECOMMENDATIONS

The following suggestions are made based on the findings of this study. To begin with, obtaining collateral for loans is a challenge for women entrepreneurs in Nkomazi who want to start or expand their businesses. Women entrepreneurs should approach and use the agencies that have been set up to help them promote their businesses.Second, high shop rents, high taxes, high-interest rates, and the high cost of transportation hurt women entrepreneurs. The solution could include forming cooperatives to help share these burdens by encouraging collaboration, sharing of experience, availability of resources, and market opportunities. Women entrepreneurs in Nkomazi should form associations or cooperatives to help them grow their businesses, afford shop rentals, and take advantage of the incentives available to cooperatives, such as lower tax and interest rates, greater bargaining power with suppliers, and lower transportation costs through bulk shipping.

The findings also reveal that Nkomazi's female entrepreneurs lack the necessary skills to start and grow their businesses. Entrepreneurial education and training are critical to a company's success.

Entrepreneurship should be taught from elementary school through tertiary education, and students should be able to grow as entrepreneurs. Entrepreneurship should be included in the Department of

Education's curricula. Universities, colleges, and universities of technology should all be engaged in entrepreneurship training programs to empower local men and women entrepreneurs. Foreignprovided training should involve the Chamber of Women Entrepreneurs throughout the process, as well as curriculum design, to ensure that the program meets the actual needs of women entrepreneurs, and follow-up should be provided.

The majority of female entrepreneurs were illiterate in primary and secondary school, and their businesses primarily focused on retail and service. Because the education, skills, and expertise with which an entrepreneur starts a business influence its success, graduate women should consider entrepreneurship as a career option. Women should go to school and study subjects that were previously thought to be reserved for men, such as engineering. Instead of limiting themselves to small retail and service businesses, they could expand into other fields such as construction, information technology, and so on. Corruption encourages nepotism, reduces productivity, and stifles socioeconomic development.

In both the public and private sectors, sex-based corruption is on the rise. In exchange for a job, a promotion, or a business opportunity, some women are asked for sex. Refusing to have sex results in the loss of a job or a tender. To eradicate sex-based corruption, the government should make existing laws more stringent, enforce the laws, and punish those who break them. Women entrepreneurs should report anyone who asks for sex in exchange for entrepreneurship services to the authorities. If the United Nations (UN) Sustainable Development Goals (SDGs) and Millennium Development Goals (MDGs) are to be met by 2030, the government and other stakeholders should take into account these recommendations and eliminate the barriers that women entrepreneurs face in Nkomazi. Ending poverty in all of its forms everywhere, achieving gender equality and empowering all women and girls, promoting sustained, encompassing, and sustainable economic growth, and providing full and productive employment and decent work for all are among these goals.

5.3. SUGGESTION FOR FUTURE STUDY

Extensive research on women entrepreneurs, according to the researcher, will help to improve women entrepreneurs' businesses, consolidate gender equality, and identify and address their specific problems. The scope of this study was limited to contextual factors affecting female agricultural entrepreneurs in the Nkomazi Local Municipality. A future study should look at women entrepreneurs in urban areas whose businesses are generally related to agriculture, as they may face unique challenges in doing business. Because this study only looked at female entrepreneurs, a future study should look at male entrepreneurs in the Nkomazi Local Municipality to compare the results and identify the challenges that both males and females face. The participants in this study were only women entrepreneurs who live in Nkomazi. Some foreign women entrepreneurs, on the other hand, run businesses in Nkomazi, and their situation is also worth investigating. The findings revealed that only a small percentage of educated females have gone into business for themselves. A future study should look into young female graduates' career and entrepreneurial goals. Finally, the findings show that women are underserved in terms of ICT knowledge and skills. The ramifications of this, as well as how to address them, should be investigated.

5.4. CONCLUSION

According to the findings of this study, women entrepreneurs face numerous challenges in running their businesses. All of these problems, fortunately, have solutions. It will, however, take time and a concerted effort on the part of women entrepreneurs, their families, society, the government, stakeholders, and researchers. First, women entrepreneurs in Nkomazi should learn about the organizations that assist women entrepreneurs and contact them to request the assistance they require. Second, they should form associations or cooperatives to reduce rent, taxes, interest rates, and transportation costs while also sharing experience and know-how. Third, the training aimed at empowering women entrepreneurs must be designed to result in positive changes in their business operations. To ensure relevance and quality, the Department of Agriculture should collaborate with those who provide training programs. Fourth, graduates should see entrepreneurship as a career that allows them to create jobs for themselves and others while also helping to reduce unemployment

and contribute to economic growth. Finally, laws based on sex, place of origin, favoritism, and infidelity should be enforced by the government. Future research should look into women entrepreneurs in cities, compare data for men entrepreneurs, look into the situation of foreign women entrepreneurs in Nkomazi, and look into the career and entrepreneurial goals of female graduates.

REFERENCE LIST

Abawi, K., 2013. Data collection instruments (questionnaire & interview).Geneva: Geneva Foundation for Medical Education and Research.

Ackah, J. & Vuvor, S., 2011. The Challenges faced by Small & Medium Enterprises (SMEs) in Obtaining Credit in Ghana.

Agbenyegah, A.T., 2013,'Challenges facing rural entrepreneurship in selected areas in South

Africa', Ph.D. thesis, North West University.

Ajzen, I., 1991. The theory of planned behavior. Organizational behavior and human decision processes,50(2), pp.179-211.

Alam, S.S., Senik, Z.C. & Jani, F.M., 2012. An exploratory study of women entrepreneurs in Malaysia: Motivation and problems.Journal of Management Research,4(4), pp.282-297.

Anggadwita, G., Ramadani, V., Alamanda, D.T., Ratten, V. & Hashani, M., 2017. Entrepreneurial intentions from an Islamic perspective: a study of Muslim entrepreneurs in Indonesia.International Journal of Entrepreneurship and Small Business,31(2), pp.165-179.

Antwi-Agyei, P. & Stringer, L.C., 2021. Improving the effectiveness of agricultural extension services in supporting farmers to adapt to climate change: Insights from northeastern Ghana. Climate Risk Management, 32, p.100304.

Appleton, J.V., 1995. Analyzing qualitative interview data: addressing issues of validity and reliability.Journal of advanced nursing,22(5), pp.993-997.

Ascher, J., 2012. Female entrepreneurship–An appropriate response to gender discrimination.Journal of Entrepreneurship, Management, and Innovation,8(4), pp.97-114.

Audretsch, D.B., 2014. From the entrepreneurial university to the university for the entrepreneurial society.The Journal of Technology Transfer,39(3), pp.313-321.

Babbie, E. and Mouton, J., 2001. Research design and problem formulation.Babbie, E., & Mouton, J, The practice of social research, pp.70-105.

Bahmani-Oskooee, M., Galindo, M.Á. & Méndez, M.T., 2012. Women's entrepreneurship and economic policies. In Women's Entrepreneurship and Economics (pp. 23-33). Springer, New York, NY.

Bandura, A., 1977. Self-efficacy: toward a unifying theory of behavioral change.Psychological Review,84(2), p.191.

Barringer, B. & Ireland, R.D., 2008. What's stopping you? Shatter the 9 most common myths keeping you from starting your own business. FT Press.

Bell, E., Bryman, A. & Harley, B., 2018. Business research methods. 3rd Edition. Oxford university press.

Birley, S., 1989. Corporate strategy and the small firm. In Readings in strategic management (pp. 78-82). Palgrave, London.

Blaikie, N., 2003. Social research and data analysis: Demystifying basic concepts. Analyzing quantitative data.

Bollinger, L. & Stover, J., 1999. The economic impact of AIDS in South Africa. *Futures*, pp.1-16.

Botha, M., Nieman, G. and Van Vuuren, J., 2007. Measuring the effectiveness of the Women Entrepreneurship Programme on potential, start-up, and established women entrepreneurs in South Africa. South African Journal of Economic and Management Sciences, 10(2), pp.163-183.

Boyd, N.G. & Vozikis, G.S., 1994. The influence of self-efficacy on the development of entrepreneurial intentions and actions. Entrepreneurship theory and practice, 18(4), pp.63-77.

Bricki, N. & Green, J., 2007. A guide to using qualitative research methodology.

Bruiners, N., 2003, 'Multi-purpose community centers: a local economic development strategy towards sustainable community empowerment and poverty alleviation in the Dwars River region', Ph.D. Thesis, Stellenbosch University.

Brynard, D. J., Hanekom, S. X., & Brynard, P. A., 2014. Introduction to research (3rd Ed.). Pretoria:

Van Schaik.

Buttner, E.H. & Rosen, B., 1992. Rejection in the loan application process: Male and female entrepreneurs' perceptions and subsequent intentions. Journal of Small Business Management, 30(1), p.58.

Carree, M.A. & Thurik, A.R., 2010. The impact of entrepreneurship on economic growth.

In Handbook of entrepreneurship research pp. 557-594. Springer, New York, NY.

Carter, S.L. & Shaw, E., 2006. Women's business ownership: Recent research and policy developments.

Census 2011: Microsoft Word - Census 2011 Municipal report - MP.doc (statssa.gov.za)

Chabwera, T., 2018. *THE CHALLENGES WOMEN ENTREPRENUERS FACE IN PIETERMARITZBURG,* s.l.: The Independence Institute of Education.

Chea, A.C., 2008. Entrepreneurial venture creation: The application of pattern identification theory to the entrepreneurial opportunity-identification process. International Journal of Business and Management, 3(2), pp.37-53.

Chen, C.C., Greene, P.G. & Crick, A., 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?. Journal of business venturing, 13(4), pp.295-316.

Chinomona, E. & Maziriri, E.T., 2015. Women in action: Challenges facing women entrepreneurs in the Gauteng Province of South Africa. International Business & Economics Research Journal (IBER), 14(6), pp.835-850.

Choto, P., Tengeh, R.K. & Iwu, C.G., 2014. Daring to survive or to grow? The growth aspirations and challenges of survivalist entrepreneurs in South Africa. Environmental Economics, (5, Iss. 4), pp.93-101.

Chabwera, T., 2018. *THE CHALLENGES WOMEN ENTREPRENUERS FACE IN PIETERMARITZBURG,* s.l.: The Independence Institute of Education.

CHRO South Africa, 2021. *Women entrepreneurs are creating jobs and sustainable businesses.* [Online]
Available at: https://chro.co.za/articles/women-entrepreneurs-are-creating-jobs-and-sustainable-businesses/

Cipriani, N., 2020. *Feminist epistemology: standpoint theory* , s.l.: s.n.

Clark, T.A., & James, F.J., 1992. Women-owned businesses: Dimensions and policy issues.

Economic development quarterly, 6(1), pp.25-40.

Coldham, N.P., 2013. Rwandan women entrepreneurs; the gendered enterprise of nation-building.

Connelly, L.M., 2014. Ethical considerations in research studies. Medsurg Nursing, 23(1), pp.54-56.

Connelly, R., 1992. Self-employment and providing child care. Demography, 29(1), pp.17-29.

Creswell, J.W., 2003. A framework for design. Research design: Qualitative, quantitative, and mixed methods approaches, pp.9-11. Thousand Oaks, California: SAGE Publications, Inc.

Cutura, J., 2008. Voices of women entrepreneurs in Bosnia and Herzegovina. Tuzla, Bosnia, and Herzegovina: Mikrokreditna Fondacija MI-BOSPO; Washington, DC: International Finance Corporation, World Bank Group

Danso-Abbeam, G., Ehiakpor, D. S. & Aidoo, R., 2018. Agricultural extension and its effects on farm productivity and income: insight from Northern Ghana. *Agriculture & Food Security.*

Deborah, A.E., Wilhelmina, S., Oyelana, A.A. & Ibrahim, S.I., 2015. Challenges faced by women entrepreneurs and strategies adopted by women entrepreneurs to ensure small business success in Nkonkobe Municipality, South Africa. Journal of Economics, 6(1), pp.37-49.

Denscombe, M., 2007. The Good Research Guide for small-scale social research projects Third Edition. London: Open University Press

Derera, E., Chitakunye, P. & O'Neill, C., 2014. The impact of gender on start-up capital: A case of women entrepreneurs in South Africa. The Journal of Entrepreneurship, 23(1), pp.95-114.

Duckett, M. K., 2019. *Empowering female farmers to feed the world.* [Online] Available at: https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=0CAMQw7AJahcKEwjIp86XrpD9AhUAAAAAHQAAAAAQAw&url=https%3A%2F%2Fwww.nationalgeographic.com%2Fculture%2Farticle%2Fpartner-content-empowering-female-farmers&psig=AOvVaw2gwQDJVZt

Etikan, I., Musa, S.A. & Alkassim, R.S., 2016. Comparison of convenience sampling and purposive sampling. American journal of theoretical and applied statistics, 5(1), pp.1-4.

Etikan, I., Musa, S.A. & Alkassim, R.S., 2016. Comparison of convenience sampling and purposive sampling. American journal of theoretical and applied statistics, 5(1), pp.1-4.

Evans, D.S. & Leighton, L.S., 1990. Some empirical aspects of entrepreneurship. In The economics of small firms (pp. 79-99). Springer, Dordrecht.

Evans, D.S. & Leighton, L.S., 1990. Small business formation by unemployed and employed workers. Small business economics, 2(4), pp.319-330.

Fatoki, O., 2014. The causes of the failure of new small and medium enterprises in South Africa.

Mediterranean Journal of Social Sciences, 5(20), pp.922-922.

Faye, I., Gajigo, O. & Mutambatsere, E., 2013. Large Scale Agribusiness Investments and

Implications in Africa: Development Finance Institutions' Perspectives. African Development Bank Group Working Paper Series, (193).

Ferrante, F., 2005. Revealing entrepreneurial talent. Small Business Economics, 25(2), pp.159-174.

Fertuck, L., 1982. Survey of small business lending practices. Journal of Small Business Management, p.32.

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, 2014. *Developing sustainable food value chains Guiding principles.* Rome: s.n.

Fukuyama, F., 1995. Trust: The social virtues and the creation of prosperity. World and I, 10, pp.264268.

Gedeon, S., 2010. What is entrepreneurship? Entrepreneurial practice review, 1(3), pp.16-35.

Gelard, P. & Saleh, K.E., 2011. Impact of some contextual factors on entrepreneurial intention of university students. African Journal of Business Management, 5(26), pp.10707-10717.

Gemo, H.R., Stevens, J.B. & Chilonda, P., 2013. The role of a pluralistic extension system in enhancing agriculture productivity in Mozambique. South African Journal of Agricultural Extension, 41, pp.59-75.

Giwa, A.H. & Babakatun, A.M., 2019. Effect of Socio-cultural Factors on Women Entrepreneurship Development in Kaduna State. Journal of Human Resource Management, 7(3), pp.57-65.

Godwin, V.O. & Harry, O.O., 2010. Questionnaire as a data collection instrument.

Golafshani, N., 2003. Understanding reliability and validity in qualitative research. The qualitative report, 8(4), pp.597-607.

Gray, D.E., 2021. Doing research in the real world. Thousand Oaks, California: SAGE Publications

Greener, S., 2008. Business research methods. BookBoon.

Halkias, D., Nwajiuba, C., Harkiolakis, N. & Caracatsanis, S.M., 2011. Challenges facing women entrepreneurs in Nigeria. Management Research Review.

Harding, S., 1986. The instability of the analytical categories of feminist theory. Signs?:Journal of Women in Culture and Society, 11(4), pp.645-664.

Hearn, J. & Lattu, E., 2002. The recent development of Finnish studies on men: a selective review and a critique of a neglected field. NORA:? Nordic Journal of Women's Studies, 10(1), pp.49-60.

Hicks, N. & Streeten, P., 1979. Indicators of development: the search for a basic needs yardstick.

World Development, 7(6), pp.567-580.

Hisrich, R.D. & Brush, C., 1986. Characteristics of the minority entrepreneur. Journal of Small business management, 24(4), pp.1-8.

Hodgetts, R.M., Kuratko, D.F. & Hornsby, J.S., 1999. Quality implementation in small business: Perspectives from the Baldridge Award winners. SAM? Advanced Management Journal, 64(1), p.37.

Hussain, J., Matlay, H. & Scott, J.M., 2008. Financial education in small ethnic minority businesses in the UK. EDUCATION AND TRAINING: LONDON

Hyrkkänen, M., 2003. The Point of Intellectual History, Finnish Yearbook of Political Thought, 7, pp.163-180.

Inglehart, R. & Baker, W.E., 2000. Modernization, cultural change, and the persistence of traditional values. American sociological review, pp.19-51. Cambridge: Cambridge University Press

International Finance Corporation, 2008. Financing Micro, Small, and Medium Enterprises: An Independent Evaluation of IFC's Experience with Financial Intermediaries in Frontier Countries. World Bank Publications.

Iwu, C.G. & Nxopo, Z., 2015. Determining the specific support services required by female entrepreneurs in the South African tourism industry. African Journal of Hospitality, Tourism and Leisure, 4(2), pp.1-13.

Jamali, D., 2009. Constraints and opportunities facing women entrepreneurs in developing countries:

A relational perspective. Gender in management: an international journal.

Jensen, E. & Laurie, C., 2016. Doing real research: A practical guide to social research. Los Angeles: Sage

Kabeer, N., 1999. Resources, agency, achievements: Reflections on the measurement of women's empowerment. Development and Change, 30(3), pp.435-464.

Kahan, D., 2012. *ENTREPRENEURSHIP in farming.* Rome: FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS.

Kamberidou, I., 2020. "Distinguished" women entrepreneurs in the digital economy and the multitasking whirlpool. Journal of Innovation and Entrepreneurship, 9(1), pp.1-26.

Khera, R., Angraal, S., Couch, T., Welsh, J.W., Nallamothu, B.K., Girotra, S., Chan, P.S. & Krumholz, H.M., 2017. Adherence to methodological standards in research using the National Inpatient Sample. Jama, 318(20), pp.2011-2018.

Kirkwood, J., 2009. Motivational factors in a push-pull theory of entrepreneurship. Gender in Management: An International Journal.

Kovalainen, A., 1995. At the Margins of the Economy: Women's Self-employment in Finland, 19601990. Turku: Turku School of Economics.

Krueger Jr, N.F. & Brazeal, D.V., 1994. Entrepreneurial potential and potential entrepreneurs.

Entrepreneurship theory and practice, 18(3), pp.91-104.

Kushnir, K. & Amin, M., 2013. Gender-based differences in managerial experience: The case of informal firms in Rwanda. Economics Bulletin, 33(4), pp.3032-3049.

Kuzilwa, J.A., 2005. The role of credit for small business success: A study of the National Entrepreneurship Development Fund in Tanzania. The Journal of Entrepreneurship, 14(2), pp.131161.

Langowitz, N. & Minniti, M., 2007. The entrepreneurial propensity of women. Entrepreneurship theory and practice, 31(3), pp.341-364

Lowe, N.K., 2019. What is a pilot study? Journal of Obstetric, Gynecologic & Neonatal Nursing, 48(2), pp.117-118.

Maden, C., 2015. A gendered lens on entrepreneurship: Women entrepreneurship in Turkey. Gender in Management: An International Journal. Gender in Management: An International Journal,

Volume 30: 312-331

Makombe, I.A.M., 2006, 'Women entrepreneurship development and empowerment in Tanzania: the case of SIDO/UNIDO-supported women microentrepreneurs in the food processing sector', Ph.D. thesis, University of South Africa.

Malhan, A. & Ishita, M., 2015. Difficulties and challenges faced by women entrepreneurs in Gurgaon. International Journal of Management and Commerce Innovation, 2(2), pp.637-640.

Mallane, L., 2001. The role of Ntsika in promoting micro-enterprises in southern Africa. In Proceedings of the National Women in Business and Management Conference (pp. 1-29).

Malyadri, I., 2014. An Economic Appraisal of Entrepreneurship in Small Scale Industries A Study Of Nellore District.

Manerkar, G.A., 2015. Women entrepreneurs in Goa: Issues and challenges. Indian Streams Research Journal, 4(12), pp.1-8.

Marlow, S. & McAdam, M., 2013. Gender and entrepreneurship: Advancing debate and challenging myths; exploring the mystery of the under-performing female entrepreneur. *International Journal of Entrepreneurial Behavior & Research*, 19(1), pp. 114-124.

Matsoso, M.L. & Iwu, C.G., 2016. Women and small scale entrepreneurship: Perspective from the SADC region. An Introduction to gender studies in Eastern and Southern Africa (pp. 197-213). Brill Sense.

Matthews, C.H. & Moser, S.B., 1995, June. The impact of family background and gender on interest in small firm ownership: A longitudinal study. In Proceedings of the ICSB 40th World conference, Sydney (pp. 18-21).

Mboko, S. & Smith-Hunter, A.E., 2009. Women entrepreneurs in Zimbabwe: A case study. Journal of Global Business Issues, 3(1), p.157.

Mboweni, K.S., 2015, 'The Challenges Facing Women Entrepreneurs in Alexandra Township'.

Master's thesis, Tshwane University of Technology: Pretoria.

McEwan, C., 2003. 'Bringing government to the people': women, local governance and community participation in South Africa. Geoforum, 34(4), pp.469-481.

Mebratu, D., 1998. Sustainability and sustainable development: a historical and conceptual review.

Environmental impact assessment review, 18(6), pp.493-520.

Mfaume, R.M., & Leonard, W., 2004. Small business entrepreneurship in Dar es Salaam-Tanzania:

Exploring problems and prospects for future development.

Mie, C.S., 2007. Enhancing the capacity of livelihood-improvement extension workers to empower rural women entrepreneurs in Sabah, East Malaysia. Journal of Developments in Sustainable Agriculture, 2(2), pp.92-102.

Minniti, M. & Naudé, W., 2010. What do we know about the patterns and determinants of female entrepreneurship across countries? European journal of development research

Mitchell, M.L. & Jolley, J.M., 2010. Research design explained: Instructor's edition.

Mordi, C., Simpson, R., Singh, S. & Okafor, C. (2010), "The role of cultural values in understanding the challenges faced by female entrepreneurs in Nigeria", Gender in Management, Vol. 25 No. 1, pp. 5-21.

Mozumdar, L., Hagelaar, G., van der Velde, G. & Omta, S.W.F., 2020. Determinants of the business performance of women entrepreneurs in the developing world context. Pp.215-235.

Musomandera, L., Shukla, J. & Luvanda, A., 2015. Microfinance and business growth of women small and medium enterprises are in Rwanda. European Journal of Accounting, Auditing and Finance Research, 3(11), pp.26-39.

Musomandera, L., Shukla, J. & Luvanda, A., 2015. Microfinance and business growth of women small and medium enterprises are in Rwanda. European Journal of Accounting, Auditing and Finance Research, 3(11), pp.26-39.

Naguib, R & Jamali, D., 2015. Female entrepreneurship in the UAE: a multi-level integrative lens.

Gender in Management: An International Journal, Vol. 30 Iss 2 pp. 135 - 161

Nani, G.V., 2011, 'Challenges faced by urban Zimbabwean women entrepreneurs', Ph.D. thesis, University of the Free State.

Neider, L., 1987. A preliminary investigation of female entrepreneurs in Florida. Journal of small business management, 25(3), p.22.

Nkau, D.J., 2005, 'Cross-border migration to South Africa in the 1990s: The case of Zimbabwean women', Ph.D. thesis, University of Pretoria.

Norris, E., Gradstein, M. & Inchauste, G., 2008. What causes firms to hide output? The determinants of informality. Journal of development economics, 85(1-2), pp.1-27.

Noyoo, N., 2021. Corporate Social Responsibility in Zambia. In Current Global Practices of Corporate Social Responsibility (pp. 579-593).

Nsengimana, S., 2017, 'Challenges to women entrepreneurship in Kigali, Rwanda', Ph.D. thesis, Cape Peninsula University of Technology.

Odinga, E.O., 2012,' Challenges facing the growth of small and medium enterprises owned by women in Kakamega Municipality', Ph.D. thesis, University of Nairobi.

Okafor, C. & Amalu, R., 2012. Motivational patterns and the performance of entrepreneurs: An empirical study of women entrepreneurs in South-West Nigeria. International Journal of Applied Behavioral Economics, 1(1), pp.29-40.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, 2004. *WOMEN'S ENTREPRENEURSHIP: ISSUES AND POLICIES.* Istanbul, s.n.

Osoro, K. & Areba, A.M.D.N.J., 2013. Constraints Facing Women Entrepreneurs in Kenya: A Case

Study of Micro and Small Enterprises in Kisii County. Journal of Humanities and Social Science, 16(6), pp.116-124.

Palaniappan, G., Ramanigopal, C.S. & Mani, A., 2012. A study on problems and prospects of women entrepreneurs with special reference to Erode District. International journal of physical and social sciences, 2(3), pp.219-230.

Panda, S., 2018. Constraints faced by women entrepreneurs in developing countries: review and ranking. Gender in Management: An International Journal. Gender in Management: An

International Journal

Patel, L., 2015. Decolonizing educational research: From ownership to answerability.

Paul, M. & Sharma, A., 2013. Entrepreneurship as a tool for rural development. Global Journal of Management and Business Studies, 3(3), pp.319-322.

Prus, P. & Drzazdzynska, K., 2017, January. Farmers 'assessment of training services and the impact of agricultural advisory on selected developmental factors affecting farming. In Economic Science for Rural Development Conference Proceedings.

Ramadani, V., Hisrich, R.D. & Gërguri-Rashiti, S., 2015. Female entrepreneurs in transition economies: insights from Albania, Macedonia, and Kosovo. World Review of Entrepreneurship, Management, and Sustainable Development, 11(4), pp.391-413.

Raosoft, I., 2021. Raosoft sample size calculator. 2004.

Renzulli, L.A., Aldrich, H. & Moody, J., 2000. Family matters: Gender, networks, and entrepreneurial outcomes. Social forces, 79(2), pp.523-546.

Richmond, B., 2006. Introduction to Data Analysis Handbook. Academy for Educational Development.

Robson, P.J., Wijbenga, F. & Parker, S.C., 2009. Entrepreneurship and policy: Challenges and directions for future research. International Small Business Journal, 27(5), pp.531-535.

Roomi, M.A., Harrison, P. & Beaumont-Kerridge, J., 2009. Women-owned small and medium enterprises in England: Analysis of factors influencing the growth process. Journal of Small Business and Enterprise Development. Emerald.

Rubagiza, J., 2010. Gender Analysis of the Technical and Vocational Education and Training (TVET) Policy in Rwanda. Forum for African Women Educationalists (FAWE Rwanda).

Rukundo, S. & Cyeze, M.E., 2015. Factors influencing intention to family business succession: a case of Kigali Independent University ULK. Direct Research Journal of Social Science and Educational Studies, 2(6), pp.77-88.

Rwanda. Ministry of Gender and Family Promotion, 2015.

Rwigema, H., Urban, B. & Venter, R., 2008. Entrepreneurship: Theory in practice. Oxford

University Press Southern Africa. Cape Town: Oxford University Press Southern Africa

Samanta, A. K., 2016. SOCIO- ECONOMIC STATUS OF WOMEN ENTREPRENEURS WITH SPECIAL REFERENCE TO KATWA SUBDIVISION, BURDWAN, WEST BENGAL- A STUDY. *Singaporean Journal of Business economics, and management studies (sJBem),* 5(5).

Sandberg, K.W., 2003. An exploratory study of women in microenterprises: gender-related differences. Journal of small business and enterprise development.

Sandhu, N., Hussain, J. & Matlay, H., 2012. Entrepreneurship education and training needs of family businesses operating in the agricultural sector of India. Education+ Training.

Sariyev, O., Loos, T., Zeller, M. & Gurung, T., 2020. Women in household decision-making and implications for dietary quality in Bhutan. *Agricultural and Food Economics.*

Sawe, C.J., 2021. Effects of Gender Enterprise on Women Empowerment in Eldoret–Kenya.

In Enterprise and Economic Development in Africa. Emerald Publishing Limited.

Scherer, R.F., Brodzinski, J.D. and Wiebe, F.A., 1990. Entrepreneur career selection and gender: A socialization approach. Journal of small business management, 28(2), p.37.

Shahnawaz, M.R., 2015. Preliminary investigation of Emirati women entrepreneurship in the UAE: Motivating factors, challenges, and government initiatives. International Journal of Scientific & Technology Research, 4(8), pp.50-61.

Shapero, A. & Sokol, L., 1982. The social dimensions of entrepreneurship. The University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.

Singh, A.S. & Masuku, M.B., 2014. Sampling techniques & determination of sample size in applied statistics research: An overview. International Journal of economics, commerce, and management, 2(11), pp.1-22.

Singh, R. & Raghuvanshi, N., 2012. Women entrepreneurship issues, challenges, and empowerment through self-help groups: An overview of Himachal Pradesh. International Journal of Management Research and Reviews, 2(1), p.77.

Solomon, D., 2010. *Desk Review of Studies Conducted on Women Entrepreneurs in Ethiopia,* Addis Ababa: Private Sector Developm ent Hub/Addis Ababa Chamber of Commerce and Sectoral.

Spilling, O.R. & Berg, N.G., 2000. Gender and small business management: The case of Norway in the 1990s. International Small Business Journal, 18(2), pp.38-59.

Stern, P.C., Dietz, T. & Kalof, L., 1993. Value orientations, gender, and environmental concern.

Environment and Behavior, 25(5), pp.322-348.

Stringfellow, L. & Shaw, E., 2009. Conceptualizing entrepreneurial capital for a study of performance in small professional service firms. International Journal of Entrepreneurial Behavior & Research.

Sudhakar, G. & G. Tamilselvi (2007). Entrepreneurial behavior of vegetable growers of Tamil Nadu. Indian J. Ext. Edu. 43 (1- 2): 110 -112.

Sukamolson, S., 2007. Fundamentals of quantitative research. Language Institute Chulalongkorn University, 1(3), pp.1-20.

Tambunan, T., 2009. Women entrepreneurship in Asian developing countries: Their development and main constraints. Journal of development and Agricultural Economics, 1(2), pp.027-040.

Tamilselvi, G. & Sudhakar, G., 2010. Entrepreneurial behavior of vegetable growers of Tamil Nadu.

Mysore Journal of Agricultural Sciences, 44(3), pp.590-593.

Taylor, G. & Pereznieto, P., 2014. Review of evaluation approaches and methods used by interventions on women and girls' economic empowerment. Overseas Development Institute, pp.1-

62.

Thampy, A., 2010. Financing of SME firms in India: Interview with Ranjana Kumar, former CMD, Indian Bank; vigilance commissioner, Central vigilance commission. IIMB Management Review, 22(3), pp.93-101.

Thébaud, S. & Sharkey, A., 2014. Unequal hard times: The influence of the great recession on gender bias in entrepreneurial investment. University of California: La Jolla, CA, USA.

Thomas, P.Y., 2010. Research methodology and design. Research methodology and design, pp.291334.

Trihopoulou, A. & Sarri, K.K., 1997. Characteristics and needs of new female business owners.

Research for the Ergani Center, Thessaloniki.

UNAIDS, 2007. *Helping micro and small enterprises cope with HIV/AIDS.* Geneva: International Labour Office.

Usunier, J.C., 1998. International and cross-cultural management research. Los Angeles: SAGE

Uwantege, K.L. & Mbabazi, P., 2015. The impact of women economic empowerment projects on their socio-economic development in Rwanda: The case of Agaseke project. European Journal of Business and Social Sciences, 4(6), pp.59-87.

Verheul, I., Stel, A.V. & Thurik, R., 2006. Explaining female and male entrepreneurship at the country level. Entrepreneurship and regional development, 18(2), pp.151-183

Vijayamohanan Pillai, N., 2016. Panel data analysis with Stata Part 1 fixed effects and randomeffects models.

Walker, E., Wang, C. & Redmond, J., 2008. Women and work-life balance: Is home-based business ownership the solution? Equal Opportunities International. Patrington, Hull [Yorkshire]: Barmarick Publications

Walker, S., 2005. Role of education and training in agricultural meteorology to reduce vulnerability to climate variability. Climatic Change, 70(1), pp.311-318.

Watkins, J.M. & Watkins, D.S., 1983. The female entrepreneur: her background and determinants of business choice-some British data. Frontiers of entrepreneurship research, pp.271-288.

Williams, C., 2007. Research methods. Journal of Business & Economics Research 5(3).

Wisker, G. (2001). The postgraduate research handbook. U.K.: Palgrave

Witbooi, M. & Ukpere, W., 2011. Indigenous female entrepreneurship: Analytical study on access to finance for women entrepreneurs in South Africa. African Journal of Business Management, 5(14), pp.5646-5657.

World Bank, 2009. Africa Development Indicators 2008/2009: From the World Bank Africa Database. The World Bank.

Wright, M., Liu, X., Buck, T. & Filatotchev, I., 2008. Returnee entrepreneurs, science park location choice and performance: An analysis of high–technology SMEs in China. Entrepreneurship theory and practice, 32(1), pp.131-155.

Wright, R.E., 1995. Logistic regression.

Yadav, V. & Goyal, P., 2015. User innovation and entrepreneurship: Case studies from rural India. Journal of Innovation and Entrepreneurship, 4(1), pp.1-20.

Yearbook, N.R.S., 2012. National Institute of Statistics of Rwanda, 2012. View in (Google Scholar).

Younge, N., 2021. Black Women Entrepreneurs: Understanding the Challenges and Proposing Policy for Equitable Change. *Merrimack ScholarWorks.*

Zamberi Ahmad, S., 2011, Evidence of the characteristics of women entrepreneurs in the Kingdom of Saudi Arabia: An empirical investigation, International Journal of Gender and Entrepreneurship, Vol. 3 No. 2, pp. 123-143. https://doi.org/10.1108/17566261111140206

APPENDICES

APPENDIX A: QUESTIONNAIRE COVER AND CONSENT FORM

FACTORS INFLUENCING WOMEN ENTREPRENEURSHIP IN AGRICULTURE
INFORMATION SHEET AND INFORMED CONSENT FORM

My name is Nsovo Jessica Nkuna, I am a Master's student at the University of Mpumalanga Mbombela campus. I am working with the approval of the School of Agricultural Sciences and my Supervisor is Dr. Jorine Ndoro. I am conducting a study on the factors influencing women's entrepreneurship in Agriculture.

I would like to invite you to participate in this research.

If you decide to take part in this study, please note the following:

Your participation is voluntary.

All the identifying information that you have provided will remain confidential.

You have the right to withdraw from the study at any point without any penalty.

There is no direct risk of physical and legal harm in this study.

Answering the questionnaire will take approximately 30-45 minutes. The information collected will be used to write a report, conference presentations, and academic publications.

Participation agreement

I……..have read and understood the document. I have been allowed to ask questions about the research and they have been answered to my satisfaction. I agree to participate.

Signature of the participant……

Date…….

APPENDIX B: QUESTIONNAIRE

SECTION A: SOCIOECONOMIC BACKGROUND (TICK/CIRCLE APPROPRIATE ANSWER)

1)Marital Status	1.Single	2.Married	3.Divorced	4.Widowed	5.Engaged
2)Education	1.Illiterate	2.Primary	3.Secondary	4.Graduate	5.Post Graduate
3)Monthly Income	R0-R1583	R1584-R7167	R7168-R16417	R16418-R33333	R33334+
4)Family Size	2-4	5-10	11-15	16+	
5)Work Experience					
6) Age					
7)What Activities Are You Involved In (Type Of Farming)					
8)Are You Part Of Any Socio-support Group, Name It.					
9)Source Of Income (Other Than Farming)					
10)Do You Have Any Business Experience ,Number Of Years					
11)Home Language					
12)Religion/Affiliation					

SECTION B: ENTERPRENEURIAL INTENTIONS

The main reason for starting up the business: (TICK APPROPRIATE ANSWER)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.PROFIT/MONEY MAKING					

2.DESIRE FOR INDEPENDENCE					
3.FLEXIBILITY					
4.CHILDCARE OBLIGATIONS					
5.BALANCEWORK-LIFE RESPONSIBILITIES					
6.INHERITANCE					
7.DISSATISFIED WITH JOB					
8.TO FILL A NEED					

SECTION C: EXTENSION SUPPORT SERVICES

Extension officers do the following: (TICK APPROPRIATE ANSWER)

FACTOR	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.They provide workshops					
2.They provide basic skill					
3.They provide training					
3.Increase efforts to safeguard intellectual property					
4.Provide targeted business training					
5.Provide entrepreneurs with market access					
6.They make it easier to access information					

7.Provide networks					
8.Extension officers are easily accessible					
9.Encourage women to become entrepreneurs					
10.They give relevant and new information					

SECTION D: CONSTRAINTS EXPERIENCED BY WOMEN ENTREPRENEURS (TICK APPROPRIATE)

I experienced the following constraints when starting my business:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Lack of funding/capital					
2. Access to information					
3. Access to opportunities					
4. Lack of self-confidence					
6. Lack of work-family balance					
7. Lack of experience					
8. Lack of training					
9. Lack of skills					
10. Lack of credibility (lack of collateral or previous debt to enable them to be borrowed money)					
11. Extension support (inputs: seeds, tractors, implements, etc.)					

APPENDIX C: ETHICAL CLEARANCE

UNIVERSITY OF MPUMALANGA

RESEARCH ETHICS CLEARANCE LETTER

Ref: UMP/ Nkuna/ MAgric/2021
Date: 14 March 2021
Name of Researcher: NJ Nkuna
Student number: 201616475
Supervisor: Dr J. Ndoro & Dr K. Ogujiuba
School / Department: School of Agricultural sciences
Faculty: Faculty of Agriculture and Natural Sciences

RE: APPROVAL FOR ETHICAL CLEARANCE FOR THE STUDY:
CONTEXTUAL FACTORS INFLUENCING WOMEN ENTREPRENEURSHIP IN AGRICULTURE: A CASE STUDY OF NKOMAZI LOCAL MUNICIPALITY.

Reference is made to the above heading.

I am pleased to inform you that the Chairperson has on behalf of the University of Mpumalanga's Research Ethics Committee, **approved ethical clearance** of the above mentioned study.

PLEASE NOTE:

Any alteration/s to the approved research protocol i.e. Questionnaire/Interviews Schedule, Informed Consent form, Title of the project, Location of the study, Research Approach and methods must be reviewed

nt form, Title of the project, Location of the study, Research Approach and methods must be reviewed

PLEASE NOTE:

Any alteration/s to the approved research protocol i.e. Questionnaire/Interviews Schedule, Informed Consent form, Title of the project, Location of the study, Research Approach and methods must be reviewed and approved through the amendment/ modification prior to its implementation.

Research data should be stored securely in the School/ Division for a period of 5 years.

UNIVERSITY OF MPUMALANGA

Research Ethics Clearance Letter *UMP*

The Ethical Clearance certificate is only valid for a period of 3 years from date of issue. Thereafter, Recertification must be applied for on an annual basis.

Prof Estelle Boshoff

Chairperson: University of Mpumalanga's Research Ethics Committee for the Human Sciences.

Date: 14 March 2021

LOGISTIC REGRESSION

Warnings

Due to redundancies, degrees of freedom has been reduced for one or more variables.

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	241	96.4
	Missing Cases	9	3.6
	Total	250	100.0
Unselected Cases		0	.0
Total		250	100.0

a. If weight is in effect, see the classification table for the total number of cases.

Dependent Variable Encoding

Original Value		Internal Value
Low Intention	Entrepreneurial	0
High Intention	Entrepreneurial	1

Categorical Variables Codings

		Frequency	Parameter coding (1)
Recoded Source of Income	Income not from Investment Savings	158	.000
	Income from Investment Savings	83	1.000
Recoded Age	Young	151	.000
	Matured	90	1.000
Recoded Education	No Education [No Formal/Primary]	151	.000
	Educated [Secondary/Tertiary/Postgraduate]	90	1.000
Recoded Monthly Income	Low Monthly Income [R0 - R7167]	151	.000
	High Monthly Income [Above R7167]	90	1.000
Recoded Family Size	Small Family Size	224	.000
	Big Family Size	17	1.000
Recoded Farming Type	Non Vegetable Farming	7	.000

	Vegetable Farming	234	1.000
Recoded Marital Status	Not Married	22	.000
	Married	219	1.000

Block 0: Beginning Block

Iteration History[a,b,c]

Iteration		-2 Log-likelihood	Coefficients Constant
Step 0	1	275.196	-.971
	2	274.823	-1.058
	3	274.823	-1.060
	4	274.823	-1.060

a. Constant is included in the model.

b. Initial -2 Log-Likelihood: 274.823

c. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)

Step 0	Constant	-1.060	.147	51.766	1	.000	.346

Variables not in the Equation[a]

			Score	df	Sig.
Step 0	Variables	Recoded Marital Status(1)	8.386	1	.004
		Recoded Age(1)	140.052	1	.000
		Recoded Education(1)	140.052	1	.000
		Recoded Monthly Income(1)	140.052	1	.000
		Recoded Family Size(1)	52.806	1	.000
		Recoded Farming Type(1)	2.497	1	.114
		Recoded Source of Income(1)	1.081	1	.298
		Sum of Constraints	30.509	1	.000

a. Residual Chi-Squares are not computed because of redundancies.

Block 1: Method = Enter

Iteration History[a,b,c,d,e]

Iteration		-2 Log-likelihood	Coefficients Constant	Recoded Marital Status(1)	Recoded Age(1)	Recoded Family Size(1)
Step 1	1	138.164	-3.567	-.134	2.444	1.473
	2	107.137	-6.938	-.407	3.619	2.538
	3	94.349	-11.399	-1.018	4.889	3.528
	4	87.621	-16.949	-2.236	6.605	4.508
	5	84.236	-22.984	-4.070	8.868	5.487
	6	83.134	-27.435	-5.577	10.979	6.474
	7	82.867	-29.400	-6.041	12.331	7.472
	8	82.778	-30.468	-6.081	13.362	8.472
	9	82.746	-31.467	-6.084	14.365	9.472
	10	82.734	-32.467	-6.085	15.366	10.472
	11	82.730	-33.466	-6.085	16.366	11.472
	12	82.728	-34.466	-6.085	17.367	12.472
	13	82.727	-35.466	-6.085	18.367	13.472
	14	82.727	-36.466	-6.085	19.367	14.472
	15	82.727	-37.466	-6.085	20.367	15.472
	16	82.727	-38.466	-6.085	21.367	16.472
	17	82.727	-39.466	-6.085	22.367	17.472
	18	82.727	-40.466	-6.085	23.367	18.472
	19	82.727	-41.466	-6.085	24.367	19.472

20	82.727	-42.466	-6.085	25.367	20.472

Iteration History[a,b,c,d,e]

Iteration		Coefficients		
		Recoded Farming Type(1)	Recoded Source of Income(1)	Sum of Constraints
Step 1	1	.241	.242	.044
	2	.589	.675	.107
	3	1.003	1.400	.207
	4	1.242	2.426	.350
	5	1.135	3.640	.522
	6	.876	4.517	.645
	7	.771	4.769	.681
	8	.758	4.788	.684
	9	.756	4.788	.684
	10	.755	4.788	.684
	11	.755	4.788	.684

	12	.754	4.788	.684
	13	.754	4.788	.684
	14	.754	4.788	.684
	15	.754	4.788	.684
	16	.754	4.788	.684
	17	.754	4.788	.684
	18	.754	4.788	.684
	19	.754	4.788	.684
	20	.754	4.788	.684

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log-Likelihood: 274.823

d. Estimation terminated at iteration number 20 because maximum iterations have been reached.

The final solution cannot be found. e.
Redundancies in Design Matrix:

Recoded Education(1) = Recoded Age(1)

The variable Recoded Education will have its degrees of freedom reduced from 1 to 0

Recoded Monthly Income(1) = Recoded Age(1)

The variable Recoded Monthly Income will have its degrees of freedom reduced from 1 to 0 Contingency Table for Hosmer and Lemeshow Test

		Recoded & Categorized Entrepreneurial Intentions = Low Entrepreneurial Intention		Recoded & Categorized Entrepreneurial Intentions = High Entrepreneurial Intention		
		Observed	Expected	Observed	Expected	Total
Step 1	1	1	1.000	0	.000	1
	2	68	68.000	0	.000	68
	3	28	28.000	0	.000	28
	4	22	22.000	0	.000	22
	5	26	26.000	0	.000	26
	6	8	13.686	9	3.314	17
	7	21	10.288	1	11.712	22
	8	5	7.581	15	12.419	20
	9	0	2.444	20	17.556	20
	10	0	.000	17	17.000	17

Categorical Variables Codings

	Frequency	Parameter coding

			(1)
Recoded Business Training	No Business Training Provided by Extension Service Support	242	.000
	Business Training Provided by Extension Service Support	8	1.000
Recoded Farm Training	No Farm Training Provided by Extension Service Support	242	.000
	Farm Training Provided by Extension Service Support	8	1.000

Block 1: Method = Enter

Iteration History[a,b,c,d,e]

Iteration		-2 Log-likelihood	Coefficients Constant	Recoded Farm Training(1)	Sum of Extension Support Services
Step 1	1	181.787	-13.453	-8.694	1.200
	2	136.553	-30.946	-23.947	2.891

3	123.086	-46.376	-37.548	4.394
4	121.694	-52.705	-42.700	5.019
5	121.576	-54.318	-43.300	5.180
6	121.554	-54.436	-42.415	5.192
7	121.546	-54.436	-41.415	5.192
8	121.543	-54.436	-40.415	5.192
9	121.541	-54.436	-39.414	5.192
10	121.541	-54.436	-38.414	5.192
11	121.541	-54.436	-37.414	5.192
12	121.541	-54.436	-36.414	5.192
13	121.541	-54.436	-35.414	5.192
14	121.541	-54.436	-34.414	5.192
15	121.541	-54.436	-33.414	5.192
16	121.541	-54.436	-32.414	5.192
17	121.541	-54.436	-31.414	5.192
18	121.541	-54.436	-30.414	5.192
19	121.541	-54.436	-29.414	5.192
20	121.541	-54.436	-28.414	5.192

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log-Likelihood: 280.064

d. Estimation terminated at iteration number 20 because maximum iterations have been reached. The final solution cannot be found.

e. Redundancies in Design Matrix:

Recoded Business Training(1) = Recoded Farm Training(1)

The variable Recoded Business Training will have its degrees of freedom reduced
from 1 to 0