

**A COMPETITIVE STRATEGY FOR SMALLHOLDER WOMEN IN THE
AGRO-FOOD INDUSTRY IN THE FREE STATE PROVINCE**

DIAU DANIEL MOSIA

Submitted for the fulfilment of the requirements for the degree

Philosophiae Doctor (Business Administration)

At the

UFS Business School

Faculty of Economic and Management Sciences

UNIVERSITY OF THE FREE STATE

PROMOTER: Professor Victor Mmbengwa

CO-PROMOTER: Dr Jan Swanepoel

Date: May 2022

Bloemfontein

DECLARATION

I, Diau Daniel Mosia, hereby declare that this paper has not been previously submitted to any institution for assessment purposes. In addition, I acknowledged every source used and cited them in the reference list.

Signature

A handwritten signature in black ink, appearing to be 'Diau Daniel Mosia', enclosed within a faint, light-colored rectangular box.

Date

03 May 2022

ACKNOWLEDGEMENTS

I would like to express my gratitude to the Almighty, who gave me the willpower to pursue my studies under the challenging Covid-19 conditions. I also wish to express my gratitude and appreciation to the following persons:

- My Promoter, the esteemed Prof. Victor Mmbengwa, consistently guided and assisted me, and sacrificed his valuable time to support me and give relevant academic inputs.
- Dr Jan Swanepoel, my Co-Promoter, provided his assistance and advice to write this thesis. His inspiration and encouragement to pursue my studies went a long way towards making this possible.
- Prof. Helena van Zyl, for encouraging me to enrol for the study and pursue the degree.
- My wife, Kelebogile Mosia, has been a pillar of support and encouragement during my studies.
- My family and friends, for their role in encouragement and patience.
- My colleague, Mr Alf Farrell, encouraged me and allowed me time off to write the thesis to complete the study.
- All persons who contributed at some stage during my studies, I sincerely thank you all.
- To all the hawkers, farmers and spaza shop owners in the five districts of the Free State Province who participated in the study, I would like to thank you a lot because it would not be possible without you.
- Thank you for your time and efforts to assist me in the data collection process for my research assistants.

DEDICATION

I would like to devote this work to my family and friends, who have assisted and given me moral support to achieve this critical step towards fulfilling my PhD studies. A special thank you goes to my wife, Ruth Kelebogile Mosia, my daughters, Palesa and Lerato, and my siblings for their support and encouragement. My parents deserve many thanks for their prayers and for believing in their son.

ABSTRACT

This study's aim involved the development of a framework for a competitive strategy that would empower smallholder women to own and nurture agro-food enterprises in South Africa's Free State Province. The main objective was to develop an empirical model that could be used to ensure that market access interventions would positively influence change for these enterprises. Accordingly, the study measures the effect of the transformation factors on women in agro-food enterprises of the Free State Province. The domain of women empowerment has been used worldwide in evaluating the extent of women's empowerment in the agricultural sector. Thus, this study aimed to analyse this domain to empower women's agro-food enterprises in the Free State Province.

This study adopted the concurrent explanatory mixed method research design. In this design, the socio-economic data were collected using a closed-ended questionnaire, followed by focus group sessions. Stratified random sampling techniques were employed to obtain a sample size of 517, using the Raosoft sample size calculator. Finally, the data were analysed by using hierarchical multiple regression, binary multiple-regression, a stepwise multiple-regression model, and structural equation modelling (SEM).

The results showed that market access is highly correlated ($r = 0.482$, $p = 0.000$) with business ownership and moderately correlated with management control. These results suggest that when business ownership, management control and representative are included in the model with market access, market access has a minor but positively significant ($\beta=0.059$, $p = 0.05$) role in influencing agro-food enterprise transformation for smallholder women. However, the effect of market access on change is seen to be the lowest, compared with the confounding variables. These results imply that market access is not the highest priority in effecting transformation in this farming system, but that business ownership, representation, and management control are.

Further results reveal that all the responsive variables were significant in affecting agro-food enterprises. However, business ownership ($\beta = 0.334$, $p = 0.000$) showed that it has a key effect on women's agro-food enterprises, relative to representativity

(beta = 0.315, p = 0.000) and management control (beta = 0.087, p = 0.000). The study indicated that business ownership, representation of women, and management control in these enterprises are necessary to transform these enterprises. This study revealed that all the domains for empowerment positively influence the empowerment of these enterprises, except the leadership in the community (B = -0.516, p = 0.001).

The findings show a positive relationship between production and empowerment success ($\beta = 0.133$, $p < 0.000$). Similarly, all subsequent hypotheses were also supported. These results imply a positive and significant relationship between transformation and empowerment ($\beta = 0.151$, $p < 0.000$), capacity building and empowerment ($\beta = 0.313$, $p < 0.000$), entrepreneurship and empowerment ($\beta = 0.552$, $p < 0.007$), and savings and competitiveness ($\beta = 0.463$, $p < 0.000$).

For the Free State province to modernize this type of farming system, it is recommended that the extension services be implemented to ensure that the women farmers have opportunities to acquire ownership of land, and representation in the value chain and in the management of the corporate entities dealing with market access. The study concluded that business ownership, representation of women, and management control in these enterprises are necessary to transform these enterprises. Therefore, it is recommended that the policy on women empowerment be amended to emphasize these three tenets of transformation.

This study further recommends that gender empowerment policies be transformed to enforce gender parity in all facets of the community's leadership in order to support women's views. In conclusion, the current model should allay the concerns of the researchers and practitioners regarding the lack of competitiveness of the smallholder agro-food enterprises of women, even though the government supports them. Therefore, it recommends that savings and empowerment should be used to ensure the competitiveness of these enterprises.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
DEDICATION	iv
ABSTRACT	v
TABLE OF CONTENTS	vii
LIST OF TABLES	xiv
LIST OF FIGURES	xvi
LIST OF POSSIBLE PUBLICATIONS	xvii
CHAPTER 1: INTRODUCTION	1
1.1 INTRODUCTION AND BACKGROUND	1
1.2 CONTEXT OF THE STUDY	3
1.3 PROBLEM STATEMENT.....	4
1.4 RESEARCH AIM, OBJECTIVES AND QUESTIONS	5
1.4.1 The aim of the study	5
1.4.2 Secondary research objectives	5
1.4.3 Research Questions	5
1.4.4 Hypothesis.....	6
1.5 CONCEPTUAL / THEORETICAL DEFINITION OF TERMS	7
1.5.1 Empowerment.....	7
1.5.2 Transformation.....	7
1.5.3 Broad-Based Black Economic Empowerment (B-BBEE).....	7
1.5.4 Capacity Building	7
1.5.5 Entrepreneurship	9
1.5.6 Enterprise	9
1.5.7 Agro-food Enterprises	9
1.5.8 Competitiveness	10

1.5.9	Competitive advantage	11
1.5.10	Smallholder farmers.....	11
1.5.11	Hawkers.....	12
1.5.12	Spaza Shops	13
1.5.13	Strategy	13
1.6	CONTRIBUTION OF THE STUDY	14
1.7	DELINEATION OF THE STUDY.....	14
1.8	ASSUMPTIONS OF THE STUDY.....	14
1.9	LAYOUT OF THE STUDY	15
CHAPTER 2: LITERATURE REVIEW		17
2.1	INTRODUCTION	17
2.2	THEORETICAL ORIENTATION OF THE STUDY	17
2.2.1	Competitive Theories	17
2.2.2	Equity Theory: Women empowerment	22
2.3	AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND DEVELOPED COUNTRIES	23
2.4	AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND DEVELOPING COUNTRIES	24
2.5	AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND AFRICAN COUNTRIES	25
2.6	AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND SUB-SAHARAN AFRICA	26
2.7	AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND SOUTH AFRICA	27
2.8	AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND THE FREE STATE PROVINCE	28
2.9	CONCLUSION OF LITERATURE REVIEW	29
CHAPTER 3: RESEARCH METHODOLOGY.....		30
3.1	INTRODUCTION	30

3.2	RESEARCH PARADIGM.....	30
3.3	THE LOCATION OF THE STUDY	30
3.4	RESEARCH DESIGN.....	31
3.5	POPULATION AND SAMPLE DESIGN	31
3.5.1	Population.....	31
3.5.2	Sample and sampling design	33
3.6	THE RESEARCH INSTRUMENT	34
3.7	PROCEDURE FOR DATA COLLECTION	35
3.7.1	Qualitative data collection	35
3.7.2	Qualitative data analysis	36
3.7.3	Quantitative data collection	37
3.8	DATA ANALYSIS AND INTERPRETATION	37
3.8.1	Qualitative data analysis and interpretation.....	37
3.8.2	Quantitative data analysis and interpretation	37
3.9	VALIDITY AND RELIABILITY OF RESEARCH.....	38
3.9.1	External validity.....	38
3.9.2	Internal validity.....	39
3.9.3	Reliability	39
3.10	ETHICAL CONSIDERATIONS	39
3.11	CONCLUSION.....	40
CHAPTER 4: EFFECT OF MARKET ACCESS ON THE MODERNISATION OF SMALLHOLDER WOMEN AGRO-FOOD ENTERPRISES IN FREE STATE PROVINCE, SOUTH AFRICA.....		41
	Abstract.....	41
4.1	INTRODUCTION	42
4.2	THEORY OF ACCESS, TRANSFORMATION AND SMALLHOLDER MARKET ACCESS.....	43
4.3	MATERIALS AND METHODS	45

4.3.1	Study area	45
4.3.2	Research Designs	46
4.3.3	Data collection	46
4.3.4	Data analysis	47
4.4	RESULTS AND DISCUSSION	49
4.4.1	Market access for agro-food enterprises	51
4.4.2	The relationship of the transformation indicators for smallholder women agro-food enterprises	54
4.4.3	Effects of market access on the transformation the agro-food enterprises of smallholder women	57
4.5	LESSONS LEARNT.....	59
4.6	CONCLUSION AND RECOMMENDATIONS.....	60
	REFERENCES:.....	61
CHAPTER 5: THE EFFECTS OF THE TRANSFORMATION FACTORS ON WOMEN AGRO-FOOD ENTERPRISES.....		65
	ABSTRACT.....	65
5.1	INTRODUCTION	65
5.2	RESEARCH METHOD	66
5.2.1	Methodology	66
5.2.2	Research design and data collection	66
5.2.3	Data analysis	67
5.2.4	Model specification	67
5.3	RESULTS AND DISCUSSION	68
5.3.1	Socioeconomic characteristics of the respondents.....	68
5.3.2	Correlation coefficients of the transformation factors on women’s agro-food enterprises.....	71
5.3.3	The effects of the transformation factors on women’s agro-food enterprises....	75
5.4	CONCLUSION AND RECOMMENDATIONS.....	76
	REFERENCES:.....	77

CHAPTER 6: ANALYSIS OF THE DOMAINS OF EMPOWERMENT FOR SMALLHOLDER WOMEN AGRO-FOOD ENTERPRISES: EVIDENCE FROM FREE STATE PROVINCE OF THE REPUBLIC OF SOUTH AFRICA..... 79

ABSTRACT..... 79

6.1 INTRODUCTION 79

6.2 MATERIALS AND METHODS 80

6.2.1 Study area and sampling method..... 80

6.2.2 Model specification 82

6.2.3 Model summary and Goodness of fit..... 83

6.3 RESULTS AND DISCUSSION 84

6.3.1 Socio-economic characteristics of the agro-food enterprises of smallholder women 84

6.3.2 Relationship between domains of the smallholder women agro-food enterprises. 85

6.3.3 Domain of the smallholder women agro-food enterprises..... 86

6.4 CONCLUSION AND RECOMMENDATIONS..... 88

REFERENCES:..... 88

CHAPTER 7: THE DEVELOPMENT OF A COMPETITIVE STRATEGY FOR THE EMPOWERMENT OF SMALLHOLDER WOMEN AGRO-FOOD ENTERPRISES IN THE FREE STATE PROVINCE OF THE REPUBLIC OF SOUTH AFRICA..... 91

ABSTRACT..... 91

7.1 INTRODUCTION 91

7.2 LITERATURE REVIEW 93

7.2.1 Policy towards the competitive strategy 93

7.2.2 Conceptual framework of hypotheses 93

7.3 METHODOLOGY 98

7.3.1 Sampling..... 98

7.3.2 Instrument..... 99

7.3.3 Data analysis and quality checks 99

7.4	RESULTS	105
7.4.1	Descriptive analysis	105
7.4.2	Hypotheses testing	106
7.5	DISCUSSIONS AND CONCLUSION	108
	REFERENCES.....	111
	CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS.....	117
8.1	INTRODUCTION	117
8.2	OVERVIEW OF THE STUDY	117
8.3	SUMMARY OF MAIN FINDINGS.....	118
8.3.1	Summary of principal findings according to the study's objectives	118
8.3.2	Summary of major findings from the descriptive analysis.....	119
8.3.3	Summary of main findings from inferential or empirical analysis	119
8.4	SUMMARY OF CONCLUSIONS	120
8.4.1	Descriptive analysis	120
8.4.2	Empirical analysis	120
8.5	SUMMARY OF CONTRIBUTIONS OR IMPLICATIONS.....	121
8.5.1	Theoretical contribution.....	121
8.5.2	Practical contributions.....	122
8.5.3	Contribution to policy	122
8.5.4	Contribution to management.....	123
8.6	REVISITING THE RESEARCH QUESTIONS.....	123
8.7	REVISITING THE HYPOTHESES.....	124
8.8	AREAS FOR FUTURE STUDIES	124
8.9	LIMITATION OF THE STUDY	125
8.10	CHAPTER SUMMARY	125
	References	126
	APPENDIX	154
	APPENDIX A.2: QUESTIONNAIRE, SESOTHO	161

APPENDIX B: TURNITIN REPORT	168
APPENDIX C.1: REQUEST FOR CONSENT.....	171
APPENDIX C.2: REQUEST FOR CONSENT.....	175
APPENDIX D: LANGUAGE EDITING LETTER.....	179
APPENDIX E: APPROVAL OF RESEARCH PROPOSAL -UFS	180
APPENDIX F: SESOTHO FOCUS GROUP SESSION.....	181
APPENDIX G: ETHICAL CLEARANCE CERTIFICATION.....	185

LIST OF TABLES

Table 3.1: Population and sample size of the study	32
Table 3.2: Sampling of respondents.....	33
Table 4.1: Sample representation of the women agro-food sector in Free State Province	47
Table 4.2: The rating of transformation across the commodity and value chain sector	49
Table 4.3: The rating of the level of transformation across district municipalities in Free State Province	53
Table 4.4: Descriptive analysis and correlation coefficient for the transformation indicators.....	54
Table 4.5: Effects of market access on the transformation of smallholder women agro-food enterprises	58
Table 5.1: Demographic and descriptive analysis of the agro-food enterprises	68
Table 5.2: Descriptive analysis of the agro-food enterprises.....	69
Table 5.3: Multivariate outliers test of the transformation residual	74
Table 5.4: The correlation of the transformation factors of the agro-food enterprises	74
Table 5.5: The stepwise multiple regression model of agro-food enterprises.....	75
Table 6.1: Goodness of fit for the model of the empowerment of smallholder agro-food enterprises	83
Table 6.2: Omnibus test of model coefficients for the empowerment of smallholder agro-food enterprises	84

Table 6.3: Descriptive analysis of the socio-economic characteristics of smallholder agro-food enterprises	85
Table 6.4: Pearson correlation for the domain of empowerment of smallholder women agro-food enterprises	86
Table 6.5: Predictor coefficients and odds ratios for the domain of smallholder women agro-food enterprises	87
Table 7.1: Summary of the presented hypotheses	98
Table 7.2: Model summary showing Goodness of Fit	102
Table 7.3: The convergent validity of the smallholder women's agro-food model ..	103
Table 7.4: Composite reliability of the agro-food women model	104
Table 7.5: The Reliability Statistics	105
Table 7.6: Descriptive analysis of the factors that influence the smallholder women agro-food enterprises	106
Table 7.7: Standard regression weights for the smallholder women's agro-food enterprises	108

LIST OF FIGURES

Figure 3.1: Selection of sampling design.....	34
Figure 4.1: Rating of the transformation by smallholder women agro-food enterprises	51
Figure 4.2: Evaluation of the effect of market access on the transformation of the agro- food value chain	52
Figure 4.3: Test for the normality of the transformation.....	56
Figure 4.4: The Q-Q normality plot test for the transformation	56
Figure 5.1: The business experience of the women in agro-food enterprises	70
Figure 5.2: The educational background of the women in agro-food enterprises.....	70
Figure 5.3: The educational achievement of women in agro-food enterprises	71
Figure 5.4: The test of normality using a histogram	72
Figure 5.5: The test of normality using a P-P Plot.....	72
Figure 5.6: The test of homoscedasticity using a scatter plot.....	73
Figure 6.1: District municipalities of the Free State province.....	81
Figure 7.1: Framework for the conceptual empowerment of smallholder women’s agro- food enterprises	94
Figure 7.2: Standardized regression weights for the smallholder women’s agro-food enterprises	107

LIST OF POSSIBLE PUBLICATIONS

Authors	Affiliation	Titles of the article
D. Mosia, VM Mmbengwa and J Swanepoel	University of Free State, Bloemfontein, 9300	The effects of the transformation factors on women agro-food enterprises
D. Mosia, VM Mmbengwa and J Swanepoel	University of Free State, Bloemfontein, 9300	Effect of market access on the modernisation of smallholder women agro-food enterprises in Free State province, South Africa
VM Mmbengwa, D. Mosia, and J Swanepoel	University of Free State, Bloemfontein, 9300	Analysis of the domains of empowerment for smallholder women agro-food enterprises: evidence from Free State province of the Republic of South Africa.
J Swanepoel, VM Mmbengwa and D. Mosia	University of Free State, Bloemfontein, 9300	The development of a competitive strategy for the empowerment of smallholder women agro-food enterprises in the Free State province of the Republic of South Africa.

LIST OF ABBREVIATIONS

AFASAWD: Association of South Africa Women Desk	91
AMOS: Analysis of a moment structure.....	95
ASGISA: Accelerated and Shared Growth Initiative for South Africa	21
B-BBEE: Broad-Based Black Economic Empowerment.....	7
CAADP: Comprehensive Africa Agriculture Development Program.....	55
CFI: Comparative fit index.....	97
CIDA: Canadian International Development Agency.....	7
GFI: Goodness of fit index.....	97
HMLRM: Hierarchical multiple linear regression model.....	44
HMRA: Hierarchical multiple regression analysis	53
IICBA: International Institute for Capacity Building in Africa	7
ILO: International Labour Organization	24
IPAP: Industrial Policy Action Plan.....	118
JICA: Japan International Cooperation Agency.....	7
NDP: National Development Plan	118
NIE: New Institutional Economic theory	16
RDP: Reconstruction and Development Programme	20
RMSEA: Root means a square error of approximation	97
SAWIF: Southren African Women in Farming	91
SEM: Structural Equation Model	95

SEWA:Self-Employed Women's Association	91
SME: Small and Medium-sized Enterprises	29
SPSS: Statistical Package for the Social Sciences	95
SSA: sub-Saharan Africa	24
U.N: United Nations.....	91
UNDP: United Nations Development Programme.....	7
WEAI : Women's Empowerment in Agriculture Index.....	5

CHAPTER 1: INTRODUCTION

This chapter provides the introductory background information of the current research. It describes the context, problem statement, research objectives, conceptual theories, contribution, delineation, assumption, and the layout of the study.

1.1 INTRODUCTION AND BACKGROUND

Gender oppression has led to women-owned enterprises being rendered uncompetitive and often survivalist in nature and character. This oppression has resulted in patriarchal gender oppression and political manipulation (Mkhize and Vilakazi, 2021). Bereng and Mutekwe (2021) reported in their study that 60% of gender discrimination constituted one of the significant drivers of patriarchal hegemonic ideology. Thus, it is undeniable that, historically, women have been under patriarchal oppression in South Africa, regardless of their race, class and creed (Bereng and Mutekwe, 2021; Ulandari and Dahlan, 2021; Schreiner, 2017; Littrell and Nkomo, 2005). According to these authors, women of all races have been primarily expected to be homemakers and legally inferior, without any tangible household economic contribution. Their work opportunities were mainly in a domestic or unskilled factory environment (Mkhize and Vilakazi 2021; Littrell and Nkomo 2005). This ill-treatment of women is ongoing, despite the affirmation of equality for all South African citizens. Nevertheless, this constitutional guarantee (as set out in the Bill of Rights) seems to receive lip service only (the Constitution of the Republic of South Africa, 1996:5-6).

Current studies have found that women often end up being discriminated against, sidelined, and violated (Moreroa and Rapanyane, 2021; Cornell et al., 2021; Chiliza and Masuku, 2020). According to Nyahunda et al. (2020), women in agriculture are vulnerable to human oppression and climate change. However, the class differentiation of women and its discriminatory features have not been widely researched.

In other economic sectors, women have also faced similar discrimination. Although urban and rural women have had fundamentally different opportunities for economic access, rural women seem to have had access to more land than their urban counterparts have had. This is so because rural women have been expected to provide food security, while their spouses were away from home, serving as economic migrant workers. The experience of rural women in agriculture in South Africa seems similar to their counterparts in other parts of the African continent (Adeoti and Akinwande, 2013; Saka and Adebisi, 2021). In Nigeria (for instance), it has been reported that:

"Women have less access to land and property rights. They either work on family or their husband's land. In some cases, they are given marginal lands. The farm size of the female farmers is generally small when compared to their male counterparts. More female farmers have farm sizes of less than one hectare. This affects the type of enterprise they engage in and their investment in the land to enhance their productivity. Lack of title deeds of the land by a large percentage of women limits their production base and income (Swanepoel et al., 2021)".

However, it has been noted that improvement in the agricultural productivity of women (despite the lack of essential agricultural assets) could be achieved through improved technology and education (Adeoti and Akinwande, 2013; Jiyane, 2021). Women workers appear to experience exceptionally long working hours in other economic sectors, whether in heavy industry or cottage industries, and in working as peasant labourers. In addition, various experiences indicate that women are paid lower wages than men are (Schreiner, 2017). According to this author, women in some parts of Eastern Europe are faced with various oppressive tendencies:

"Women were described as the most oppressed of the oppressed and the most enslaved of the enslaved. These women, predominantly living in patriarchal feudal conditions, were not allowed to own or inherit property. They were deprived of the most basic human rights and were completely excluded from social life. Their existence in the home was at the beck and call of the men. Girls in the eastern region were married off between the ages of 10 and 12. In a society where polygamy was rife, the third and fourth wives of the wealthy had a torrid

time. Whereas among those of Russian nationality in the early 1900s just 16,6% of women were literate, nearly all women could not read or write (Schreiner, 2017)".

The above experience explains the universality of women's oppression and demonstrates the need to empower women economically and socially, across the globe (Van Dijk and Nkwana, 2021; Lyimo et al., 2021). Moreover, very marginal or limited successful entrepreneurial business cases are associated with women. Hence, women are lagging in terms of entrepreneurial development. Although rural women are experienced in agricultural survival entrepreneurship, minimal research has been dedicated to investigating their potential to grow their agricultural enterprises. An empirical investigation into the agro-food enterprises of smallholder women could identify the areas suitable for improving these enterprises in order to increase the economic viability of rural areas, and stimulate their economic potential.

Adeoti and Akinwande (2013) and Saka and Adebisi (2021) have reported overwhelming, low literacy levels of rural women. It is suggested that increased access to information, gained through their social organisation, could increase their awareness of available opportunities. These authors also advocate for extraordinary attention be given to women in agriculture because of their relatively low states of well-being in other sub-sectors. Improving access to land, capital and means of production could help to ease restrictions on women in agriculture and improve their productivity and well-being (Adeoti and Akinwande, 2013).

1.2 CONTEXT OF THE STUDY

Although hardly documented because of cultural beliefs and the custom of relegating women to second-class citizens in their respective societies (Amusan and Ngoh, 2016), it has been found that females play an essential role in ensuring food security through food production (Van Dijk and Nkwana, 2021) has been established. However, these authors reported that women's participation in developmental activities is rarely reported in the African continent, suggesting that women's businesses marginally impact on African society. If the above assumption is correct, the competitiveness of

women's enterprises may be questionable or negligible (Makandwa et al., 2021). Thus, this might imply that their importance and impacts in society are low. However, the involvement of women in agriculture has been well documented (Olubenga and Adeoti, 2011; Makandwa et al., 2021). However, the literature indicates that women represent the key and the brain behind agriculture in their communities (Amusan and Ngoh, 2016). According to these authors, most of the produce obtained from the farms results from the hard work of women.

The study conducted by Amusan and Ngoh (2016) demonstrated that women were the impetus behind agriculture in Modimolle and were the decision-makers in such enterprises. This finding proves that women can operate competitive smallholder agro-food chain enterprises if they are empowered. With this background, this study seeks to investigate how to develop competitive strategies that could empower the agro-food enterprises of smallholder women in the Free State Province.

1.3 PROBLEM STATEMENT

Little is known about the competitive advantage of, and the impacts of empowerment on, smallholder women agro-food enterprises in the Free State Province (Manase, Mmbengwa, and Lekunze, 2022; Mmbengwa, Khoza., Rambau, and Rakuambo, 2018; Louw, Jordaan, Ndanga and Kirsten, 2008). Less is known about the influence of transformation, capacity building, and entrepreneurship on the empowerment of these enterprises, despite the considerable investment that the Free State Provincial Government has made to redress the imbalances of the past patriarchal cultural systems. The progressive policies favouring women empowerment have been implemented, but with negligible outcomes, resulting in the perceived failure of the agro-food enterprises of smallholder women. The effect of continuing with the limited competitive strategies for achieving sustainable agro-food businesses for smallholder women is that these enterprises appear to contribute insignificantly to alleviating the socio-economic challenges facing these communities in the Free State. The first sub-problem investigates whether transformation, capacity building, and entrepreneurship influence the empowerment of the agro-food enterprises of smallholder women. The second sub-problem investigates whether a significant relationship exists between

transformation and empowerment, capacity building and empowerment, entrepreneurship and empowerment, and empowerment and competitive advantage. The third sub-problem investigates whether empowered smallholder women enterprises could have a competitive advantage in the agro-food markets.

1.4 RESEARCH AIM, OBJECTIVES AND QUESTIONS

1.4.1 The aim of the study

This study aims to develop a strategy that could be instrumental in empowering women to improve their competitiveness in the smallholder agro-food market.

1.4.2 Secondary research objectives

To attain the above aim, the following objectives are set:

1.4.2.1 To determine the indicators that influence the competitiveness of the agro-food enterprises of smallholder women.

1.4.2.2 To evaluate the weighting of the indicators of empowerment, as modified from the Women's Empowerment in Agriculture Index (WEAI) philosophy about the following constructs:

- Production
- Transformation
- Capacity building
- Entrepreneurship.

1.4.2.3 To assess the domain of the empowerment of smallholder women in their agro-food enterprises.

1.4.2.4 To develop a competitive strategy for the empowerment of the agro-food enterprises of smallholder women in the Free State Province.

1.4.3 Research Questions

To realise the aim as mentioned above, the following research questions will be probed:

1.4.3.1 Which indicators will influence the competitiveness of the agro-food enterprises of smallholder women?

1.4.3.2 Which indicators are valuable for building the following constructs?

- transformation
- production
- capacity building
- entrepreneurship

1.4.3.3 Which domains of empowerment are essential for smallholder women's agro-food enterprises?

1.4.3.4 Which competitive strategy could lead to the empowerment of smallholder women in their agro-food enterprises in the Free State Province?

1.4.4 Hypothesis

The study has come up with the following hypothesis in various section of the thesis and these hypotheses were in line with the research objectives as stated above. The hypothesis reiterated were the following:

- Hypothesis 1: There is a positive relationship between production and empowerment success in the smallholder women's agro-food enterprises in the Free State province of the Republic of South Africa.
- Hypothesis 2: There is a positive relationship between transformation factors and women's empowerment in agro-food enterprises.
- Hypothesis 3: There is a positive relationship between capacity building factors and women's empowerment in agro-food enterprises.
- Hypothesis 4: There is a positive relationship between entrepreneurship factors and women's empowerment in agro-food enterprises.
- Hypothesis 5: There are positive mediating effects between empowerment and savings and the competitive advantage of smallholder women's agro-food business enterprises in the Free State of the Republic of South Africa.

1.5 CONCEPTUAL / THEORETICAL DEFINITION OF TERMS

This study will use the following theoretical definitions to articulate and achieve its aims and objectives:

1.5.1 Empowerment

Empowerment is a complex and multi-dimensional concept that is centred on the transformation of power relations. Some authors, such as Luttrell, Quiroz, Scrutton, and Bird (2009), have described it as an emancipatory process where the disempowered and disadvantaged are enabled and empowered to exercise their rights in decision-making, and to gain access to resources and skills, thereby allowing them to participate actively in those activities essential to enhance their livelihoods positively.

1.5.2 Transformation

The term 'transformation' has been applied in the South African economy to activities that are intended to redress the negative impacts of disempowerment inflicted upon Black populations.

1.5.3 Broad-Based Black Economic Empowerment (B-BBEE)

The B-BBEE strategy is based on only a single dimension of empowerment – economic empowerment – instead of addressing the multi-dimensional spheres of empowerment (McEwan and Bek, 2006).

1.5.4 Capacity Building

Based on the definition used by some development cooperating organisations (Matachi, 2006), including the United Nations Development Programme (UNDP), the Canadian International Development Agency (CIDA), the Japan International Cooperation Agency (JICA), and the International Institute for Capacity Building in Africa (IICBA), the term 'capacity' has been defined as follows:

"Capacity is defined as the organizational and technical abilities, relationships and values that enable countries, organizations, groups, and individuals at any

level of society to carry out functions and achieve their development objectives over time. Capacity refers not only to skills and knowledge but also to relationships, values and attitudes, and many others (emphasis added) (adapted from Morgan, 1998)."

Furthermore, capacity can be defined at three different levels (UNDP, 1998), in a system context that comprises Individual, Organisation, and Environment levels.

1.5.4.1 Capacity at the individual level

Personal-level capacity is an essential element of capacity. It is the basis of an organisation's capabilities and is linked to the willingness and ability of individuals to set goals and to utilise their knowledge and skills in order to achieve them. (JICA, 2004). Individual-level abilities include knowledge, skills, values, attitudes, health, and awareness. It can be developed in various ways. In the context of organisational development, it is also called personnel development.

1.5.4.2 Capacity at the organisation level

Organisation-level skills determine how individual skills are used and improved. These relate to anything that affects the performance of an organisation (JICA, 2004), including the following: human resources (individual skills within the organisation); physical (facilities, equipment and materials) and intellectual (organisational strategy, strategic planning and management) resources; commercial enterprise know-how, manufacturing technology, programme control, and process management (problem-solving skills, decision making and communication) resources; inter-institutional coordination (networks and partnerships); and incentives and reward systems, organisational culture, and management leadership.

1.5.4.3 Capacity at the environment level

Environmental-level competence involves the environment and conditions required to demonstrate competence at the individual and organisational level (JICA, 2004). It incorporates the systems and frameworks needed to form and implement guidelines and strategies across a single organisation. Various aspects of the environment, such as government, law, technology, politics, economy, society and culture, influence and

convey the message on how effective and sustainable the capacity-building efforts are in the organisation.

Elements upon which capability is primarily based are reflected in the surroundings that encompass formal establishments, together with laws, policies, decrees, ordinances and club rules. In addition to these are aspects of informal establishments, together with customs, traditions and norms, social capital and social infrastructure, and the capacities of people and corporations underlying the surroundings.

1.5.5 Entrepreneurship

Timmons et al. (1994) defined entrepreneurship as the ability to create and build incremental wealth from virtually nothing. This is the dynamic process of constructing or capturing opportunities and pursuing them, regardless of the resources currently managed. The author further stated that entrepreneurship includes the definition, creation, and distribution of values and benefits to individuals, groups, organizations, and societies. Entrepreneurship is the creative act of human beings to find personal energy by launching and building businesses and organisations. It involves building a team of people with complementary skills and talents who feel an opportunity where others see confusion, contradiction and chaos, who then find order and manage the resources to seize the opportunity (Timmons et al., 1994).

1.5.6 Enterprise

In this study, 'enterprises' are defined as set out in the National Small Business Act 102 of 1996, as amended in 2004, where micro-, small- and medium-scale enterprises are managed by one or more owners, mostly in one sector or sub-sector of the economy. These SMEs may also be operated as cooperative companies, which sometimes may have branches or subsidiaries.

1.5.7 Agro-food Enterprises

In this study, the term 'agro-food' is used to represent an 'agro-food system' to understand a combination of both a national growth model (accumulation) and a national type of agricultural food regulation as a commercial system (Greenberg, 2015). Furthermore, activities and legal forms (e.g. norms of conduct) in the production

and distribution of (unregulated) agricultural products are in turn combined (Greenberg, 2015). Therefore, according to the author, an agro-food enterprise can be defined as a firm that is involved in all the dynamics of supply, production, distribution and consumption within national borders, whether formal, regulated or commercial.

1.5.8 Competitiveness

According to Latruffe (2010), competitiveness can be defined as standing up and succeeding in the competition. Furthermore, the definition of competitiveness can be broadened to include the ability to sell products in keeping with demand requirements (of price, quality and quantity) while maintaining long-term profits that lead to business success (Ngenoh et al., 2019). Competition can take place in the domestic market (involving the comparison of companies or sectors in the same country) or internationally (where companies or sectors are compared between countries).

Therefore, competitiveness is a relative measure. However, this is a wide-ranging concept and consensus on its accurate definition or measurement is yet to be reached (Latruffe, 2010). There are several aspects to consider when determining competitiveness, such as cost advantage, throughput, efficiency, profitability, market performance, and various measurement approaches (Man et al., 2002; Latruffe, 2010; Di Vita et al., 2015).

These authors further stated that competitiveness is typically understood in terms of a company's performance against its competitors over the long term and can therefore be viewed as involving i) controllable characteristics of company resources and capabilities, and ii) relative and iii) dynamic concepts (Man et al., 2002). At the enterprise level, competitiveness is analysed primarily with regard to productivity and efficiency, and the study focuses on the influence of an enterprise's internal factors (Amit and Schoemaker, 1993), the external environment (Nickell et al., 1997; Fried et al., 1999), and entrepreneurial characteristics (Cooper et al., 1992; Man et al., 2002).

1.5.9 Competitive advantage

Whilst the definition of competitive advantage has remained ambiguous and troublesome for a long time (Lieberman, 2021), in this study the term competitive advantage has been used as defined by Porter (1985) when he stated that competitive advantage means having low costs, differentiation advantage, or a successful focus strategy. The author further argued that “competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm’s cost of creating it.”

In this study, competitive advantage has been regarded as a conceptual umbrella for performance comparisons, and the focus was on developing and refining performance measures (Lieberman, 2021). According to Rumelt (2012), the concept of competitive strategy has taken centre stage in any deliberations about business strategy. Therefore, in reviewing strategy literature, it was found that the common theme was value creation and different schools of thoughts did not have much agreement on the conceptualization and measurement of value creation (Peteraf, 1993; Barney, 2002; Rumelt 2012; Ali and Anwar, 2021).

These authors further suggested that competitive advantage is represented amongst other by the highest profit in the industry; above-average profit in the industry sustained positive economic profit; the low-cost position (in an undifferentiated product industry); a gap between customer value and cost that is larger than the gap of competitors. Therefore, a firm will have a sustained competitive advantage when its competitive advantage is not competed away through their strategies being imitated. (Ali and Anwar, 2021; Kariuki, 2022).

1.5.10 Smallholder farmers

In South Africa, it is essential to differentiate between diverse groups of smallholder and subsistence farmers. The yields of smallholder farmers are low and fluctuate. As a result, smallholders produce greater quantities of products than they need to, and sell the surplus to consumers directly, or deliver the products to collection points and co-operatives that normally process and sell the products. Fair and stable market

access is significantly constrained for smallholder farming because of the inconsistent production of smallholders.

Within the smallholder sector, farmers fluctuate in performance, depending on many factors operating between the subsistence and commercial levels. The main factor is government intervention, which includes large food programmes, general weather conditions, feasibility of the business, and above all, the individual needs and motivations of the farmer. Because farmers in communal areas are primarily smallholders, it can be argued that farmers in this category can play a meaningful role in:

- Fighting poverty in rural regions
- Generating stable incomes
- Improving food security in rural areas
- Improving the standard of living of the rural population
- Promoting women's roles in rural communities
- Building the capacities of individuals
- Advancing effective and sustainable land use
- Introducing rural farmers into the mainstream economy
- Expanding the market base for products from local sources.

As production accelerates, the development of infrastructure and the provision of skills training are of critical importance.

1.5.11 Hawkers

Hawkers are defined as vendors who sell their products by moving from place to place or through the streets of a city (Black et al., 1999). It is generally understood that a hawker takes goods out for sale and seeks purchasers either by outcry or by attracting notice and attention by exhibiting or exposing goods through placards or labels (Black et al., 1999).

1.5.12 Spaza Shops

A spaza shop is an unofficial convenience store in South Africa, usually operated from a residence (Age, 2015). Spaza Shops also serve to supplement the household incomes of the shop owners, through selling everyday small household items. According to the Sustainable Livelihoods Foundation (2015) and Ligthelm (2005), this type of business is common in townships, usually operating from used shipping containers and small buildings inside and outside a dwelling, selling small amounts of foodstuffs, such as vegetables, bread, milk, sugar, and soft drinks.

Most of these retailers and other informal retailers can be categorized as survivors, carrying on business for reasons of self-sufficiency or entrepreneurship (Skinner, 2005). The author states that retailers of this nature procure goods in the formal sector and sell them to township customers, especially buyers who cannot buy in bulk. Therefore, it can be said that these firms sell in quantities which are accessible for low-income consumers.

1.5.13 Strategy

A strategy is an action plan or method chosen to achieve a long-term or overall aim. It can be defined according to two interrelated aspects, namely corporate strategy and business strategy.

A corporate strategy is a corporate decision-making model that defines and discloses goals and objectives, and develops basic policies and plans to achieve these goals, as well as determining the scope of business, economics, and human organizations that a corporation must undertake. Corporate strategy also deals with the nature of the economic and non-economic contributions it intends to make to shareholders, employees, customers and the community.

A business strategy is less complex and determines the choice of a product or service and the company's intended market. A business strategy influences how a company will compete in a particular business and with its competitors. A corporate strategy defines the business in which a company will compete, and in what way it would be better to focus resources on transforming differentiated competencies into a competitive advantage.

1.6 CONTRIBUTION OF THE STUDY

This study's findings will substantively help to improve the agro-food enterprises of smallholder women in ways for them to become commercially viable and competitive. The Free State Provincial Government is duty-bound to implement transformation and the empowerment of historically disadvantaged individuals. Given this constitutional prescription, the empowerment of women in Free State communities would significantly help to achieve the millennium development goals, comply with constitutional mandates, and secure the socio-economic mainstreaming of smallholder women.

The study will provide a conceptual model and quantify the influential factors, which would enable policymakers, academics, practitioners and developers to benchmark and prioritize the derived construct regarding budgeting and resource allocation.

1.7 DELINEATION OF THE STUDY

This study focuses on the empowerment of women's enterprises in the agricultural food sector in the central South African province of the Free State. It was anticipated that the study's strategy to collect empirical information would be influenced by the respondents' acceptance of the study. Although the review will not present particular case studies, the qualitative information given will show and explain the respondents' views, as expressed in the quantitative outcomes. The research only focuses on the enterprises of females of various age groups, as regards different education levels, different commodities produced, and different production scales within the Free State Province.

1.8 ASSUMPTIONS OF THE STUDY

Where permission to conduct the research was granted by the stakeholders concerned, the study was able to address its aim and objectives in an articulated manner, such that the strategy evolving from the study could be efficiently utilized to improve the sustainability and profitability of the agro-food enterprises of women in the Free State Province. Furthermore, assuming that the conditions in the Free State are the same as in other provinces in the country, the study's outcome could be used as a baseline for further interventions in those provinces that seek to promote the

competitiveness of this sector. As a result, the sector in question could become economically viable and stimulate job creation in ways that reduce inequality, unemployment and poverty in rural areas of South Africa.

1.9 LAYOUT OF THE STUDY

This study is primarily concerned with the lack of competitiveness of women-owned agro-food enterprises in the Free State Province, to the extent that they cannot benefit optimally from these enterprises.

The study starts in Chapter 1, giving an introduction and the background to the agro-food enterprises of women. Then, the context of the study, problem statements, research objectives, theoretical terms, the study's contribution, delineation of the study, and the assumptions of the research are outlined.

Chapter 2 deals with the literature review, and it introduces the study and definitions of smallholder agro-food enterprises. Then, the theoretical background, including competitive and equity theories, will be examined. Finally, the participation of women in smallholder agro-food enterprises across different developmental stages of various countries will be assessed, followed by a conclusion to the literature review.

The research paradigm, research design, population and sample design, the procedure for data collection, data analysis and interpretation, validity and reliability of the research, and ethical clearance submissions will be discussed in Chapter 3.

In Chapter 4, the factors that influence the competitiveness of agro-food enterprises conducted by smallholder women will be presented and discussed.

Chapter 5 will evaluate and discuss the weighting of indicators of empowerment, as adapted from the WEAI index.

Chapter 6 will assess and discuss the domain of empowerment of smallholder women's agro-food enterprises.

Chapter 7 will determine and discuss the indicators that affect the effectiveness of smallholder women in agro-food enterprises.

Chapter 8 will summarise the main findings and set out the conclusion, the recommendations of the entire study, and the contribution to policy for enhancing the sustainability of farming carried out by SMMEs.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter reviews the related literature and secondary empirical data to identify theoretical gaps in the existing body of knowledge. The purpose of this chapter of the study, amongst others, is to review the theoretical and empirical literature on empowerment. It begins by discussing competitive theories that have been applied to understand the competitiveness and entrepreneurial qualities of smallholder farmers in the South African context.

This chapter then discusses a conceptual framework that could be applied to empowerment, transformation, capacity building, and entrepreneurial growth of the agro-food enterprises of smallholder women. In conclusion, the chapter describes the proposed hypotheses, as applied in this study.

2.2 THEORETICAL ORIENTATION OF THE STUDY

2.2.1 Competitive Theories

At the global level, various entrepreneurial theories seek to describe the competitiveness of enterprises (Sedliacikova et al., 2021; Komarkova et al., 2014; Wickham, 2006). Women in smallholder agro-food enterprises in South Africa are no exception, and if they intend to be competitive, they need to know about such theoretical underpinnings in their enterprises. Therefore, this study has carefully selected four theories for further examination: resource-based theory, evolutionary economics theory, new institutional economics theory, and organizational evolution theory. These could be used as a basis for stimulating the competitiveness of smallholder women agro-food enterprises in South Africa, and for empowering them to become meaningful participants in the agro-food value chain.

a) Resource-based theory

This theory emphasises a firm's internal aspects as constituting the determinants of performance (Marletta et al., 2021; Bugrim and Kolesnik, 2020; Wickham, 2006). Although the emphasis of this theory is on the firm, it does appear that some elements of the theory could be applied to other forms of business. Penrose initiated the theory in 1959 (Penrose and Penrose, 2009), with the following components:

1. Resources comprise a combination of production support services (resource bundles), not production input;
2. Different companies have different resources available (resource heterogeneity); and
3. There are some difficulties in moving resources between companies (resource immobility).

According to Wickham (2006), the resource base of any enterprise has implications for the competitiveness of the entrepreneurs and the sustainability of enterprises. This author suggests that entrepreneurs can add value in a unique way, including a business simulation approach, especially by accessing and acquiring the appropriate resources when faced with opportunities and then adjusting and customizing them in particularly appropriate ways. In South Africa, this process is called business planning (Litheko, 2021; Kuhn et al., 2020). This planning explains how a company's ingenuity goes beyond accumulating and efficiently using goods and assets to include the management of operational and higher-level processes, such as organizational learning, culture and networking.

b) New Institutional Economic (NIE) theory

The NIE theory suggests that a firm can change its internal constitution by acting individually or collectively (Prasetyo et al., 2021; Hafiz et al., 2021). This theory originated from the work of Hamilton (1932) and Commons (1924). It was Hamilton (1932) who defined what an institution was. According to his definition, an institution refers to a certain fashion and constancy of thought or behaviour inherent in a group or custom of people that limits and imposes a particular form on people's activities.

In this sense, institutions are what some anthropologists call "culture." It is a social phenomenon that determines the breadth of what people are allowed to do, specifies what they must do, and tells them what they cannot do (Wickham 2006). New institutions require entrepreneurs who are able to adapt the institution to fit with new opportunities. This may imply that the entrepreneurs must find ways to achieve legitimacy in their relationships with stakeholders, such as investors, customers, employees and suppliers, as well as governments and the supply community in general (Wickham, 2006).

According to this author, one way for entrepreneurs to acquire legitimacy is to present themselves as outsiders, challenging the old guards of established businesses that seek to retain their dominance. Ultimately, the entrepreneur is not only the founder of the enterprise but is also the architect of a new institutional system of beliefs and values.

In discussing the impact of the new institutional economic theory on smallholder farmers in South Africa, Phakathi et al. (2021), Jordaan et al. (2014) and Putnam (2000) show that the extent to which a group of smallholder farmers working collectively achieves success depends on the social capital of the individuals and the social dynamics within the community (i.e. customs, norms and traditions). In addition, the impact of social dynamics within different communities means that robust dynamic models should be prioritized in new institutional settings (McVee et al., 2021).

However, Louw et al. (2006) and Will et al. (2021) suggest that social dynamics may mean that there is no single model that will accurately represent South Africa's diverse small-scale communities. Simple replication of any particular model is therefore not possible. Jordaan et al. (2014) also reported that the institutional environment is characterised by rules and regulations that are designed to protect people from opportunistic behaviour and incentives that determine the behaviour of the economic agents in question (Milagrosa, 2007; Khoza et al., 2021).

c) Evolutionary economic theory: a selection of smallholder women entrepreneurs

This theory can be logically associated with the selection of competitive entrepreneurs. Smallholder agro-food enterprises in South Africa have not undergone an evolution, based on what corporate commercial farming does, to sustain their dominance in the agro-business sector of South Africa. According to Wickham (2006), Louw et al. (2006) and Will et al. (2021), this theory was conceptualized by Charles Darwin, as he posited that evolution occurred through a process of natural selection. In Darwin's conceptualization, natural selection entails the following:

1. In any population of the same organism (species), individuals within that species differ (to some extent) in their ability to obtain essential resources (food, water and reproductive opportunities). As a result, some individuals will be more successful in the species than others are.
2. Secondly, organisms breed. Genetic mechanisms allow an organism to make a copy of itself. Therefore, the number of individuals (population) increases exponentially. Duplication creates more variations.
3. Resources for satisfying biological needs are limited. In the face of limited resources, organisms survive and continue to proliferate in variations that allow them to be better extracted. Those without these variations will not see their own copy in the next generation. Therefore, natural selection ensures that each generation is comprised of slightly different individuals to the previous generation.

The evolutionary economic theory uses a natural selection model to explain the diversity of survival and change within economic groups. Smallholder farming is primarily undertaken by resource-poor farmers in South Africa. It is often found in peri-urban and rural poverty-stricken areas. Although society appears to assume that smallholder farmers are homogeneous, the reality is that this mode of farming is heterogeneous. Thus, smallholder entities are associated variously with subsistence, small-scale, emerging commercial, or true smallholding forms of farming.

These different classifications define smallholder farmers' resource accessibility and developmental stage. Therefore, these farmers experience some variations within smallholder farming. Hence, their existence fulfils the first assumption of the evolutionary economic theory, which suggests that individual units in the economy occur in a particular type. Moreover, some variations exist between the separate entities within those types.

The second assumption of the evolutionary economic theory suggests that entities reproduce themselves in a sequence of generations. Smallholder farming has been resilient under repression, and has replicated itself from generation to generation, to date. However, the entities produced in the strand of the generation have been short on economic contribution. The generation of the entities that smallholder farming has been growing have been mainly strong on the survival side, but not economically.

It may be said that selective forces in smallholder farming have operated mainly for food security purposes than for economic purposes. This observation implies that changing the strand of smallholders to one with economic focus may require a different generational approach. Simultaneously, the smallholder's change that focuses on economic factors may require various entities that will reproduce economically and require different selective forces. This focus may imply that smallholders' communication of external and internal resources has to be modelled to gain a distract evolution of the economic entities within the smallholder farming sector.

d) Organizational Evolution theory

The theory of organizational evolution advocates for the evolution of an individual's firm rather than of the industry in which the firm operates (Cho et al., 2021; Karpouzoglou and Barron, 2014). These authors also highlighted the point that the theory explores the relationship between ownership, decision-making, and a firm's performance. In this study, organizational evolutionary theory is essential for smallholder firms owned by women, in which women take operational decisions and give strategic direction for competitiveness and performance. Moreover, it is valid in a South African context where women-owned enterprises have long been marginalized and under-resourced, thereby being relegated to conducting survivalist entrepreneurship (Mmbengwa, 2009; Ireland, 2021).

Regardless of ownership, the smallholder farming sector has challenges relating to the entrepreneurship of individual enterprises and their performance in South Africa. The organizational evolution of this sector has been championed through transformational and empowerment programmes, but with intangible results. Against this background, certain transformational gaps obstruct the performance of smallholder firms. Nevertheless, their organizational renewal might impact positively on food security and job creation in the depressed, remote areas of South Africa, where unemployment, deprivation, and inequalities are rampant.

2.2.2 Equity Theory: Women empowerment

The study has theoretical roots in the domains of the equity theory, as articulated by Buhler (2001). This author expounded on equity theory, as developed by J. Stacey Adam in 1963. According to his articulation, the theory compares the social environments and their inadequacies (Sharma and Das, 2021). This theory's underlying premise indicates that inequalities militate against the sustainable development of any society. DAFF (2012) has indicated that equity and transformation are interrelated.

According to DAFF (2012), equity implies fairness and equal treatment, regardless of gender, race, and social class. In pursuit of equity, the transformation process involves profound change that must lead in new directions towards improved levels of efficiency. DAFF (2012) also warned that, without the rules for conversion, equity could not be reached. In the South African context, the Reconstruction and Development Programme (RDP) sought to address the inequalities of South African society through applying affirmative action (RDP, 1993; Du Toit et al., 2021). According to the RDP (1993), the affirmative action programme was designed to address the following:

'An affirmative action programme must address the deliberate marginalisation from black people's economic, political and social power, women, and rural communities. Within this programme, particularly vulnerable groups such as farmworkers, the elderly, and the youth require targeted intervention'.

After the adoption of the RDP programme in 1994, the democratically elected government established the Accelerated and Shared Growth Initiative for South Africa

(ASGISA) in 2007, which was meant to advance the expansion of women empowerment through the promotion of women's participation in various sectors of the economy, including agricultural industries (Ncube 2021). Similarly, the Broad-Based Black Economic Empowerment (B-BBEE) Act No.53 of 2003 was established to advance black people's participation and economic transformation.

2.3 AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND DEVELOPED COUNTRIES

It is difficult to ascertain the situation regarding the agro-food enterprises of smallholder women in developed countries because of limited reported scientific evidence (Grabs and Carodenuto, 2021; Pereira and Tsikata, 2021). The lack of reported evidence on this aspect may indicate marginal interest in smallholder women's agro-food enterprises. This observation is made, despite the pioneering role of developed countries in establishing global women empowerment movements (Ozoya et al., 2017).

The assertions of these authors have demonstrated that developed countries contributed to the feminist movement in the 18th century, where women's rights and political participation were pioneered by May Wollstonecraft in 1792, followed by Harriet Taylor Mill in 1851, and subsequently, John Stuart Mill in 1869. Moreover, according to Held (2021), the driving force of women's movements was the desire to achieve economic empowerment and social emancipation from the patriarchal status quo induced by men's muscularity dominance, which acted as a source of poverty, exclusion, alienation, and violence perpetrated by male chauvinists.

Lailulo et al. (2015) reflected a view that attempts to paint a picture that gender disparities in power and roles act to harm women's health, fertility control survival, and nutrition, and therefore improving women empowerment in a society has ripple effects for both the economic and social emancipation of the society in question. Furthermore, in 2008, the World Bank associated women's empowerment with enhancing the capabilities and capacity of social groups so as to facilitate a propensity to transform the societal choices, actions, and outcomes of the social transformational construct (Shahbaz et al., 2017). This empowerment initiative is necessary because women play a valuable role in stimulating and driving economic activities in many poor rural areas

where agriculture is the primary source of income (Mishra and Sam, 2016). Moreover, economic theories contend that empowering women by facilitating access to assets, such as land, financial security and farming infrastructure, provide the empowerment of women, regardless of their country's state of development (Anderson and Eswaran, 2009; Aziz et al., 2021).

2.4 AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND DEVELOPING COUNTRIES

Women in many developing countries have long been exposed to sexism (Mishra and Sam, 2016). This discrimination is primarily due to women's social unproductiveness (due to limited participation in direct income-generating activities) and low value to parents for long-term wealth accumulation (Anukriti, 2014).

On the other hand, women are recognized as comprising a major contributor to agriculture in developing countries, accounting for about 43 percent of the agricultural workforce (Croppenstedt et al., 2013; FAO, 2016). In addition, Duflo (2012) emphasized that women's empowerment and economic development are inextricably linked. However, there is reported evidence of women's continued marginalization, even though their contribution is widely acknowledged (Mmbengwa et al., 2014).

Duflo (2012) also indicated that there is a two-way link between women's empowerment and economic development, which is defined as the improved ability of women to access developmental dimensions of health, education, income, rights and political participation. Tiwari (2018) reported that the participation of women in the mainstream agricultural sector allows them to achieve their productive goals in their subsistence farming enterprises.

Croppenstedt et al. (2013) reported that female farmers in developing countries produced less than their male counterparts did. They attributed this difference to a gender perspective and limited access by women to inputs and services. The participation of women in the agricultural labour force is essential, yet their access to land ownership and other services remains heavily constrained (FAO, 2016).

To render women's empowerment meaningful in developing countries, it is necessary to provide skills development for them, including skills for their participation in decision-making processes. Mmbengwa et al. (2014) confirmed this by reporting the need for women to be included in managerial and advisory levels in various governance institutions. In their views, this inclusion could constitute what may be called transformational changes in the context of South Africa as a developing country. However, these authors also warned that the lack of prospects for success regarding the representation of women could have serious repercussions when limited attention is given to the inclusion of women.

According to the literature, women are primarily isolated from the decision-making processes that affect their lives (Grown et al., 2003; Olsson, 2010; Ngcaba, 2012; Mmbengwa et al., 2014). Women also tend to be overrepresented among the poor and are more likely to be unemployed than men are (Duflo, 2012). These challenges limit the ability and potential of women to contribute to the national economy (Shackleton et al., 2011). These problems are especially felt in the agricultural sector in developing countries.

2.5 AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND AFRICAN COUNTRIES

African women are an integral part of the agriculture sector (Njobe and Kaaria, 2015; Malapit and Quisumbing, 2015). Although there was good indication that women in Ghana were actively involved in economic activities, only 49% were reported to have been employed in Ghana's agricultural sector (FAO, 2011). Furthermore, Njobe and Kaaria (2015) posit that women are the backbone of the agricultural sector because they represent approximately 50% of the labour force in the sector.

These authors gave their view that women produce 60% to 80% of the African continent's agro-food products, indicating that the empowerment of women is a requisite for societal transformation. Moreover, women's empowerment has been hailed as an increasingly important factor in the African continent's economic development (Zereyesus et al., 2017).

According to Das (2014), women's empowerment is an instrument to defend the powerless and organize them to take up future opportunities to develop their self-reliance. However, the vulnerability of women, across sectors, varies by region, production system and social group (Bonny and Rajendran, 2013).

2.6 AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND SUB-SAHARAN AFRICA

According to Njobe and Kaaria (2015), it appears that women form the majority in sub-Saharan Africa, at 52% of the population. Their contribution to agricultural labour appeared to be equal to that of men in this region. The critical contributions made by women obliged governments in the region to sign the 1997 Blantyre Declaration on Gender and Development, the express aim of which was to abolish and reform all laws and practices that discriminate against women (Mapuranga, 2016). The Declaration also aims to increase the proportion of women in the legislatures of the Southern African Development Community (SADC) countries to 30%.

Government cooperation with non-governmental organizations (NGOs) regarding women identified critical problem areas, which resulted in the establishment of the Department of Women's Affairs and the adoption of the National Policy on Women in Development. Women and the Law in Southern Africa (WILSA) is arguably the most influential non-governmental organization advocating for the reform/abolition of laws that discriminate against women in various countries of the region.

According to Njobe and Kaaria (2015), the 2011 ILO data revealed that sub-Saharan Africa (SSA) had the highest level of poverty-stricken communities (65%), of which it is assumed that the highest levels of vulnerability to lack of employment were experienced by women (77%). This status restates the nature of the challenges that women are faced with in this region. However, Njobe and Kaaria (2015) further noted that, in some sub-Saharan Africa (SSA) countries, African women contribute up to 80% of the continent's food.

2.7 AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND SOUTH AFRICA

According to Mmbengwa et al. (2018), South African smallholder farmers experience limited participation in the agricultural processing sector. Accordingly, the introduction of the government's transformational programmes has been based on the fact that small-scale farmers have limited opportunities for full participation in the agricultural processing industry. Furthermore, since the advent of full democracy in 1994, the government has made legally binding commitments to safeguard and promote gender equality.

Moreover, the South African Government has put institutions and gender policy frameworks in place to address gender-differentiated impacts and vulnerability. According to Statistics South Africa and various researchers (Stats SA, 2014; Amusan and Ngoh, 2016), 52% of South Africa's total population is female, and most of them live in rural areas. The numbers of rural women vary widely among various population groups (Amusan and Ngoh, 2016). According to these authors, 75% of black South African women reside in rural areas, compared with 17% for women of colour, and 8% for white women. The unemployment rate for rural women is 53% in all population groups, compared with 47% for urban women (Amusan and Ngoh, 2016). The unemployment rate among rural women is believed to be 53% for all population groups, compared with 47% for urban women (Amusan and Ngoh, 2016). According to these authors, the rural women lack access to essential services and opportunities, and this unfortunate situation persists to the present day.

Furthermore, unemployment amounts to 56% among rural African women, as compared with 31% among rural women of colour, and only 13% among rural white women (Amusan and Ngoh, 2016). According to the statistics set out above, most South African women live under deplorable conditions in rural areas (Bobo, 2011).

2.8 AGRO-FOOD ENTERPRISES OF SMALLHOLDER WOMEN AND THE FREE STATE PROVINCE

The overall population of the Free State Province is estimated at 2.8 million, of which 21,9% still has inadequate access to food (Stats SA, 2011). According to this 2011 Stats SA census, about 1.7 million of the total Free State population live in rural towns and farming areas. The report further states that 56% of these people comprise women living in the rural areas of the Province.

According to a report written by Baloyi (2011), the Free State Department of Agriculture and Rural Development had by then taken great strides by instituting various schemes to assist emerging farmers in the Province, in terms of which various farming co-operatives were funded in various Free State districts. The author reported that funding was made available for women's co-operatives to start businesses, including agro-processing and value-adding projects, in almost all Free State Province districts. Furthermore, it was reported that platforms, such as the Female Entrepreneur of the Year (formerly known as the Female Farmer of the Year), were being used to motivate young women to consider farming as their career of choice (Baloyi, 2011).

Although several projects have been established in the Free State to assist women's enterprises, information on the extent of the sustainability of these projects remains limited. According to Walsh and Van Rooyen (2015), such measures should improve home food production, canning and storage. These authors report that good knowledge and practices regarding budgeting and the efficient use of available resources, as well as the empowering of people to participate in food production and income-generating projects, will contribute to the success of these interventions.

In his 2017/2018 provincial budget vote speech, the Free State Agriculture and Rural Development MEC, Oupa Khoabane (2017), stated that "*the department was working hard to ensure that women are empowered, developed and become successful in their ventures.*" He further noted that his Province's agricultural sector was regarded as one of the vital food hubs in South Africa. Therefore, adding value to locally produced products would assist in accelerating the movement towards improving agro-processing and job creation.

2.9 CONCLUSION OF LITERATURE REVIEW

This chapter of the study describes the theoretical framework appropriate to demonstrate the challenges that women face in agricultural enterprises, around the globe. The proposed conceptual framework will pursue the current development policies that are meant to transform and empower disadvantaged women, especially those operating in agro-food enterprises. In reviewing these interventions, attention was given to competitive strategies that could help women enterprises to play a meaningful role in the agro-food markets. The literature review has also demonstrated a great deal of the theoretical and practical steps that could be taken to ensure that women's enterprises become truly competitive in South Africa and around the globe.

In conclusion, this chapter has described the scope of the challenges that currently confront smallholder women in agro-food enterprises. The study has provided an extensive theoretical review regarding the empowerment of women in agriculture and the competitive nature of their enterprises. Finally, the study explored the impact of transformation on developing a competitive strategy for achieving sustainable agro-food enterprises for women in the Free State Province.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the methodology used to address the hypotheses, propositions, and research questions that the researcher has put forward as providing possible solutions to the gaps identified in the literature review, as reflected in the study problem statement and research objectives.

This chapter covers the research methodology, research design, population and sampling design, research instrument, data collection, data analysis, validity, reliability, and ethical considerations.

3.2 RESEARCH PARADIGM

The research paradigm followed the ontological research philosophy that explains the non-existence of a single reality in the phenomenon being studied (Saunders et al., 2016). This paradigm was more relevant because empowerment dimensions and dynamics have proven challenging to measure in developing countries, such as South Africa. Therefore, the research philosophy, as articulated for this study, could help to ascertain the essential dimensions of women's empowerment in agro-food enterprises.

3.3 THE LOCATION OF THE STUDY

This study was carried out in the Free State Province of South Africa (Belle et al., 2021). This province is well known for its agricultural potential and mining (Bahta et al., 2014). In this province, the agricultural sector is dynamic and sustains households in the rural and peri-urban areas. Nyam et al. (2020) reported that 70% of rural people rely on agricultural activities for their employment and income generation. Given this background, the study identified all the Free State district municipalities as comprising its area of study.

3.4 RESEARCH DESIGN

The study followed the concurrent mixed methods research design, with in-depth interviews with stakeholders, and a cross-sectional design for qualitative and quantitative data collection (Brunero et al., 2021; Finucane et al., 2021). These methods provide for the use of quantitative approaches first, followed by qualitative approaches (Maleku et al., 2021; Bakla, 2018; Bowen et al., 2017). The purpose for using this design was to enable the data to provide descriptive, explanatory (or a combination of both), and exploratory research outcomes. According to Eiselen et al. (2005), descriptive research describes a phenomenon, while an explanatory study focuses on the empirical outcomes of the particular phenomenon. For example, although many aspects of smallholder farming have been researched in South Africa, very few quantitative and qualitative research studies have focused on the empowerment of the agro-food enterprises of smallholder women.

3.5 POPULATION AND SAMPLE DESIGN

3.5.1 Population

This research drew its sample from details of the participants that were obtained from databases of the Free State Provincial Department of Agriculture (for smallholder women agro-food entrepreneurs) and of the Free State Department of Economic, Small Business and Environmental Affairs (for hawkers and spaza shops). The size of the estimated population is reflected in Table 3.1 below. The leaders and individuals of the respective entities (small- and medium-sized enterprises – SMEs) were engaged to consent to participation in the research. The following steps were used to recruit the participants from the population:

- a. The researcher contacted the heads of the provincial departments referred to above to seek permission to ask the participants to consent to participate in the research.
- b. Individual SMEs were engaged to obtain consent for participation.
- c. Data collection event dates were set for all stakeholders and researchers.
- d. Catering and meals were organized for the participants and paid for by the host of the relevant event.

- e. The objectives of the study were explained in detail to the participants at these events.
- f. Discussions were held regarding whether the stakeholders were willing to participate.
- g. Where stakeholders agreed that they were willing to participate, their leaders signed the consent form on their behalf.
- h. Where there was no structural leadership in place, representatives of the departments and SMEs signed the project's consent form.

Table 3.1: Population and sample size of the study

Municipalities	Sampling units	Population size per municipality (N)	Selection criteria
Fezile Dabi District Municipality	Farmers	550	≥ 18yrs
	Hawkers	700	≥ 18yrs
	Spazas	400	≥ 18yrs
	Sub-total	1650	≥ 18yrs
Lejweleputswa District Municipality	Farmers	580	≥ 18yrs
	Hawkers	800	≥ 18yrs
	Spazas	400	≥ 18yrs
	Sub-total	1780	≥ 18yrs
Mangaung Metropolitan Municipality	Farmers	540	≥ 18yrs
	Hawkers	1000	≥ 18yrs
	Spazas	500	≥ 18yrs
	Sub-total	2040	≥ 18yrs
Thabo Mofutsanyana District Municipality	Farmers	600	≥ 18yrs
	Hawkers	900	≥ 18yrs
	Spazas	450	≥ 18yrs
	Sub-total	1950	≥ 18yrs
Xhariep District Municipality	Farmers	450	≥ 18yrs
	Hawkers	350	≥ 18yrs
	Spazas	300	≥ 18yrs
	Sub-total	1100	
Grand Total		8520	

Sources: Study Survey, 2018

Notes: Raosoft software was used to determine the sample size.

3.5.2 Sample and sampling design

The quantitative data were collected from a survey. The sampling frame where the data was collected was set in a stratified randomized sampling design. The population sample size was calculated by using the Raosoft Sample Size Calculator. The calculator was set to operate at a 98.1% confidence level and a 5% margin error upon the estimated population of 8520 women smallholders who operated agro-food enterprises. The research sample size was then calculated at 517 study participants from various District Municipalities in the Free State Province (see Table 3.1 above). A probability sample selection criterion (Table 3.2) was applied based on known and deliberately targeted stakeholders (Saunders et al., 2016).

Table 3.2: Sampling of respondents

Municipalities	Sampling units	Sample size	Selection criteria
Fezile Dabi District Municipality	Farmers	35	≥ 18yrs
	Hawkers	40	≥ 18yrs
	Spazas	10	≥ 18yrs
	Sub-total	85	≥ 18yrs
Lejweleputswa District Municipality	Farmers	48	≥ 18yrs
	Hawkers	60	≥ 18yrs
	Spazas	15	≥ 18yrs
	Sub-total	123	≥ 18yrs
Mangaung Metropolitan Municipality	Farmers	54	≥ 18yrs
	Hawkers	70	≥ 18yrs
	Spazas	25	≥ 18yrs
	Sub-total	149	≥ 18yrs
Thabo Mofutsanyane District Municipality	Farmers	40	≥ 18yrs
	Hawkers	50	≥ 18yrs
	Spazas	20	≥ 18yrs
	Sub-total	110	≥ 18yrs
Xhariep District Municipality	Farmers	25	≥ 18yrs
	Hawkers	20	≥ 18yrs
	Spazas	5	≥ 18yrs
	Sub-total	50	
Grand Total		517	

Source: Study Survey (2018)

Notes: Raosoft software was used to determine the sample size.

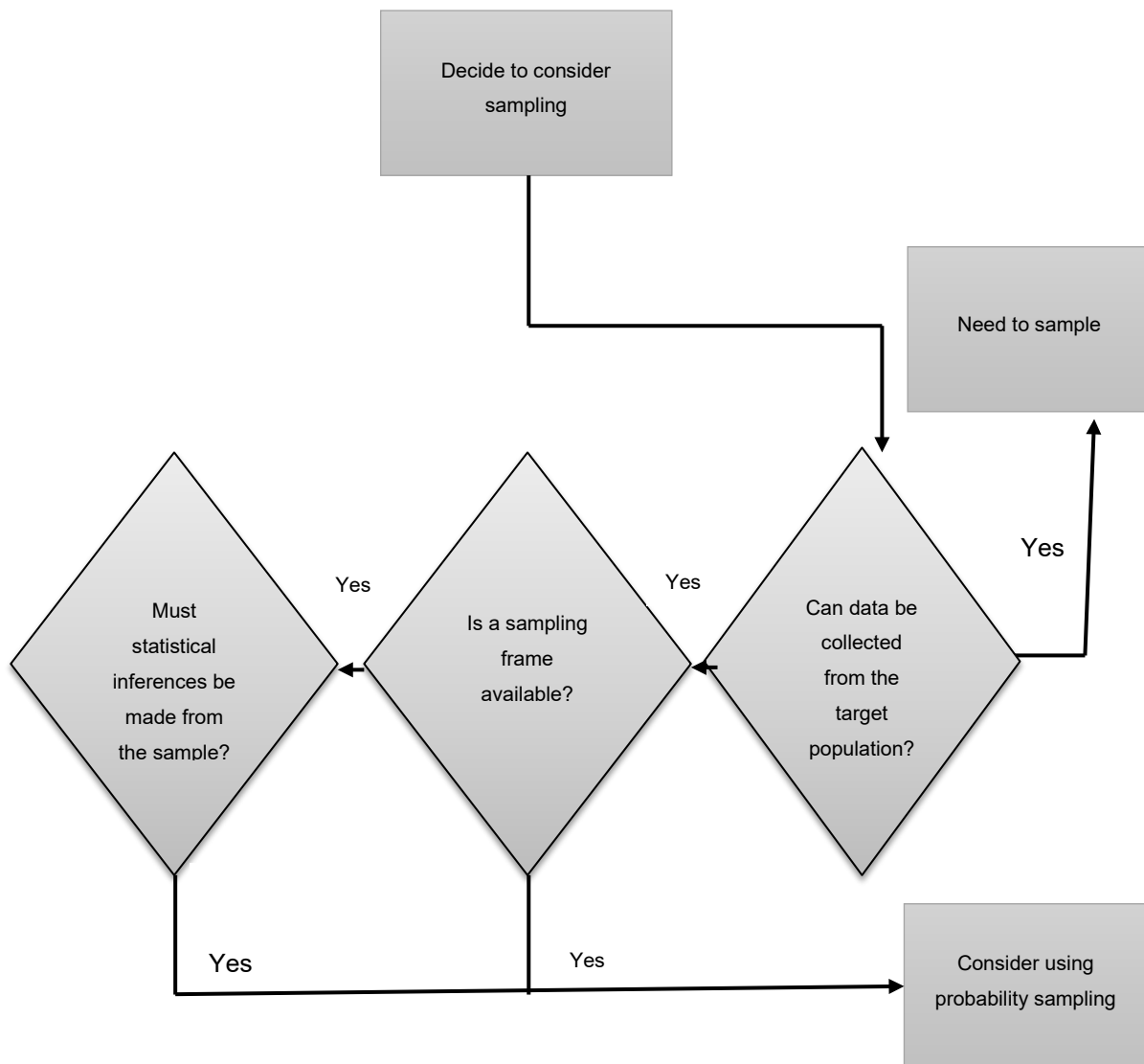


Figure 3.1: Selection of sampling design

Source: adapted from Saunders et al. (2010)

3.6 THE RESEARCH INSTRUMENT

A structured, close-ended questionnaire was used to gather data, thereby allowing insight into empowerment initiatives in the industry to be gained through the empirical evidence gathered and sorted (Appendix A). Data was collected through using both note-taking and audio recordings. Dealing with the audio and written responses recorded in the interviews entailed applying a five-phase analysis cycle of compiling, disassembling, reassembling (establishing patterns and differences), interpreting (presenting descriptions, explanations, and calls to action), and finally, describing the data descriptively (Yin, 2009; Yin, 1994; Tellis, 1997). A systematic review was applied

to critically evaluate the evidence, which is described by Collins and Fraser (2005) as being suitable for focused topics in bringing order to the diverse views of respondents by applying the same rigour as was used to gather the evidence.

The questionnaire used in the study was divided into seven sections. The first section dealt with biographic and demographic information, such as age, tribe, municipalities, agro-food products, sector, educational background, and business and sales experiences. These questions were followed by questions that sought to determine the status of the transformation, capacity building, entrepreneurship, empowerment and competitiveness, as well as indicators, affecting the effectiveness of women's agro-food enterprises. Finally, these questions were measured in terms of seven semantic differential scales.

3.7 PROCEDURE FOR DATA COLLECTION

Data were collected using the following procedure:

- a. Trained enumerators collected data under the supervision of a researcher.
- b. The data were collected by using a structured, closed-ended questionnaire (see Appendix A).

3.7.1 Qualitative data collection

Gill, Stewart, Treasure and Chadwick, (2008) and Tung and Tri, (2022), reported that qualitative data collection is essential to explore the in-depth discovery of a particular phenomenon. According to various authors, this data collection can be carried out in various methods depending on the study (Joyce, Douglass, Benwell, Rhys, Parry, Simmons and Kerrison, 2022; Gill, Stewart, Treasure and Chadwick, 2008). Clark, Williams, Kirkegaard, Brickley and Ball,(2022), revealed that in-depth interview and focus group session have high likelihood to give more grounded discovery of the phenomenon. This study has chosen the focus group sessions to explain the results from the quantitative survey. However, during survey processes, numerators were instructed to discuss the aspects of the questionnaire and such interactions were done concurrently with survey data collection. This sort of data was scribbled on the survey questionnaire and was recorded as additional primary data on a particular question.

The focus group session was also done shortly after the survey interview and the data was collected after following an interview guide (see appendix F).

3.7.2 Qualitative data analysis

3.7.2.1 Narrative analysis

In this study, narrative analysis was done in recognition of the importance of peoples 'knowledge on the smallholder women agro-food industry. The analysis falls within the realm of social constructivism or the philosophy that people's lived stories capture the complexities and nuanced understanding of their significant experiences (Bhebhe, Ntinda and Maseko, 2022). Sands, (2022) furthermore, revealed that this analysis has potential to provide multiplicity of interpretation of the phenomenon. The current study exploited the advantages of this analysis by providing platforms for the participants to ventilate on the preliminary findings and also to share their related stories which helped to explain the quantitative data outcomes. In this study there were no specific sections dealing with this analysis because the analysis was integrated into the body of quantitative results and discussion.

3.7.2.2 Content and thematic analysis

Qualitative content analysis and thematic analysis are two commonly used approaches in data analysis, but boundaries between the two have not been clearly specified (Kyngäs, 2020; Lindgren, Lundman and Graneheim, 2020). Content analysis uses a descriptive approach in both coding of the data and its interpretation of quantitative counts of the codes (Vaismoradi, Turunen and Bondas, 2013). Alhojailan, (2012) using thematic analysis, it is possible to link the various concepts and opinions of participants and compare them with the data that has been gathered in different situation at different times from other or the same participants during the project. This study used both content and thematic analysis interchangeably. Their use was more to enrich the quantitative results and also get the grounded explanation of these results.

3.7.3 Quantitative data collection

This data set was collected by using a structured, closed-ended questionnaire (see Appendix A). After collection, the data was captured in Microsoft Excel, SPSS and STATA 14 software. It was then, cleansed and coded according to the questionnaire. This process led to the data analysis and interpretation.

3.8 DATA ANALYSIS AND INTERPRETATION

3.8.1 Qualitative data analysis and interpretation

The qualitative data analysis and interpretation were done to enrich the explanation of the quantitative results. Furthermore, the context of the study was also derived from the narrative that was provided by the respondents and the participants in the group focus sessions. The main results were derived from the quantitative survey. The quantitative data analysis and its interpretation form the basis of the study.

3.8.2 Quantitative data analysis and interpretation

Quantitative data were collected, analysed and interpreted. According to Saunders et al. (2016), preliminary data refers to data collected and captured by researchers at a point in time that is created for a specific purpose, while secondary data refers to data that already exists in databases, research reports, and conference and magazine articles.

3.8.2.1 Descriptive analysis

In this study, descriptive analysis was used to ascertain the characteristics of the population within the sample. Descriptive statistics are analyses that describe or summarize survey data (Christiansen et al., 2015). According to these authors, this type of analysis makes it easier for researchers to understand datasets and their key functions with each other. The descriptive output provided comprises the mean, standard deviation, frequency, and percentage of the variables of interest. These analyses were performed to characterize the population or sample.

3.8.2.2 Inferential analysis

Inferential statistics refer to an analysis that goes beyond direct datasets and derives its base from sample data on population characteristics (Saunders et al., 2016; Christiansen et al., 2015; Tustin et al., 2010). In this study, we used the chi-square test to test for differences in the proportions of the variables of interest. We also used the following empirical models:

- a) a hierarchical multiple regression model;
- b) a binary logistic regression model;
- c) a stepwise multiple regression model; and
- d) structural equation modelling.

These tests were utilised to determine and develop the factors that influence the empowerment and competitive advantage of smallholder women's agro-food enterprises. Furthermore, the study tested the relationships between the variables of interest by using structural equation modelling.

3.9 VALIDITY AND RELIABILITY OF RESEARCH

According to Diamantopoulos and Schlegelmilch (2005), validity represents the extent to which a particular measure does not have random and systemic errors. Furthermore, the same authors defined reliability as an extent of a measure with no random error. If measurements are not reliable, they cannot be valid (Diamantopoulos and Schlegelmilch, 2005). This study used measures of both external and internal validity to ensure quality control of research results.

3.9.1 External validity

Cooper et al. (2006) define external validity as the extent to which the results of one study can be generalized to other cases and studies. It was assumed in this study that the sample selected can be generalized throughout the survey of the agro-food enterprises of smallholder women. The sample's chosen questionnaire that the respondents completed determined the external validity of this research.

3.9.2 Internal validity

Internal validity is achieved when a study can rule out suspicious alternative explanations of the results (Cooper et al., 2006). Threats to internal validity are presented by effects other than the independent variables discussed in the study results. In this study, the internal validity was checked by analysing the validity of the questionnaire elements. The results of the Internal Validity Test showed good internal consistency within the survey items.

3.9.3 Reliability

This study ensured that any factors that might affect the reliability of the study were attended to accordingly. Before the commencement of the study, the following factors were accounted for:

- a) Participant error and bias, and
- b) Researcher error and bias.

3.10 ETHICAL CONSIDERATIONS

This study complied with generally accepted ethical considerations. According to Saunders and Rennie (2013), ethics comprise a standard of behaviour that guides researchers in relation to the rights of the people who are the subject of research activities. Social norms ensure the relevance and acceptability of the behaviours exhibited in the research process. There are two guiding philosophical foundations of research ethics, constituted by deontological and teleological views (Saunders et al., 2013). The former insists that the researcher should act within the prescribed rules and regulations when conducting the research activities. The latter emphasizes that ethics should be guided by consequences, more than by prescribed rules.

These philosophical views of research ethics create some ethical dilemmas because of their contradictory nature. Saunders and Rennie (2013) highlighted the point that, to overcome these dilemmas, academic institutions have developed codes of ethics that contain a list of principles that need to be adhered to in order to avoid harming, or inflicting pain on, the participants. The University of Free State's Research Ethics policies were strictly complied with when ethical clearance for this study was sought.

As a consequence, smallholder women conducting agro-food enterprises and other stakeholders under consideration were asked for their permission to conduct the study with them as respondents.

3.11 CONCLUSION

This chapter has provided descriptions of the research designs used in the study to achieve the study aim and objectives. It furthermore explained how the population and the sample size were determined in such a way as to ensure that the study findings are valid and reliable. Furthermore, the chapter explained, in brief, the data collection and analytical procedures used for the study. Lastly, it provided information regarding the required adherence to ethical considerations for purposes of conducting the study.

CHAPTER 4:
EFFECT OF MARKET ACCESS ON THE MODERNISATION OF SMALLHOLDER
WOMEN AGRO-FOOD ENTERPRISES IN FREE STATE PROVINCE, SOUTH
AFRICA

ABSTRACT

The main objective of this study was to develop an empirical model that could be used to ensure that market access interventions would positively influence change for the agro-food enterprises of smallholder women. The quantitative data were collected using the survey method, while the qualitative data were collected using focus group sessions. The results showed that market access is highly correlated ($r = 0.482$, $p = 0.000$) with business ownership, and moderately correlated with management control. The results suggest that when business ownership, management control, and representative are included in the model with market access, market access has a minor but positively significant ($\beta=0.059$, $p = 0.05$) role in influencing the transformation of smallholder women's agro-food enterprises. However, the effect of market access on change is seen to be the lowest when compared with the confounding variables. These results imply that market access is not the highest priority for effecting the transformation of this farming system, but rather that business ownership, representation, and management control are. For the Free State Province to modernise this farming system, it is recommended that agricultural extension services ensure that women farmers have opportunities to acquire ownership of land, as well as representation in the value chain and the management of the entities dealing with market access.

Keywords: transformation, ownership, market, access, women

4.1 INTRODUCTION

Concerns regarding the multiple levels of the lack of market access in the smallholder farmer sub-subsector (regardless of gender, scale of production, and geographical location) have cast doubt on the success of the post-democratic dispensation. These concerns have placed tremendous pressure on the agricultural stakeholders to scale up the transformational agenda in South Africa. This failure is observed, despite the progress that has been made in the last 20 years. As access to the market has increased, changes in domestic institutions and various trade agreements between countries (or groups of countries) have resulted in the world economy becoming more integrated and have removed many trade barriers.

Recent studies show that economic activities rely heavily on the market networks between partners and business allies (Clough and Piezunka, 2020). It is these networks that enable enterprises to acquire market access for their commodities. Karavidas (2020) reported that increased market access has had a different impact on the spatial distribution of economic activity within a country or region. Therefore, increased market access has become a major research topic for trade economists. Any location with better market access has a superior advantage for experiencing suitable business activities (Behrens et al., 2006).

Mutea et al. (2020) have emphasized the point that market access can be viewed as the ability of people to acquire, control, or maintain exchange relationships. These authors point out that market access is necessary for securing critical resources (e.g. tools, fertilizers and better seeds) and selling produce. Areas closer to markets tend to have higher prices for agricultural products, and these prices decline as distances increase, farther away from the market (Okech et al., 2005). Proximity to the market provides convenience and lower expenses (Mutea et al., 2020). However, the effect of market access on the transformation and modernization (trans-modernization) of the agro-food enterprises of smallholder women is under-reported, and very little is known about it in the agricultural industry of South Africa.

Therefore, this study aims to determine the effect of market access on the transformation and modernization of smallholder women's agro-food enterprises in the Free State Province of South Africa. The purpose of this article is to develop a model

that these farmers could use to ensure that they might gain impactful market access, and thereby safeguard the transformational progress of this agricultural sector. This chapter will provide a theoretical basis for the importance of market access as being the critical factor of the transformation, growth, and development of the smallholder women's agro-food enterprises. Furthermore, the chapter will describe the methodology used and present the results, discussion, conclusion, and recommendation arising from this study.

4.2 THEORY OF ACCESS, TRANSFORMATION AND SMALLHOLDER MARKET ACCESS

According to Peluso and Ribot (2020), the theory of access refers to specific types of networks among those who control, gain and maintain access to markets. These authors suggest that access may relate to cooperation, competition, conflict, and negotiation. It may also relate to controlling access through gatekeeping, including others in others' expenses (Hall et al., 2011). In simpler terms, this theory "... conceptualizes how configurations of bundles of private property rights and bundles of powers shape access to resources and how this access is gained, maintained, and controlled (Mutea et al., 2020:2). In the context of the smallholder farmers in South Africa (who are mainly non-white people), access theory suggests that planned maintenance of power and control of access to markets might be perpetual, because of the exclusions of these farmers because of the domination of white farmers under the apartheid supply and value chains in the formal markets. Legislative measures, which seek to resolve the racial and economic conflicts that existed in the apartheid era, have been put in place, and non-racial policies have been enacted to foster the unity of South African society at all levels. However, the smallholder farming communities have not participated in the commercial markets, such as those that supply agro-food retailers.

To some extent, these farmers are excluded because of their lack of access to market information, which is a critical institutional factor and an integral part of the participation in these markets by these farmers (Nwafor et al., 2020). Studies reveal that the importance of market information to smallholder farmers cannot be safely ignored because it increases agricultural market efficiency and contributes significantly to market participation (Kherallah et al., 2001 and Nwafor et al., 2020). The formation of

the National Agricultural Marketing Council (NAMC), with a solid mandate to provide market intelligence to all participants in the farming sector, indicates that the democratic government has sought to unite the divided farmers and broaden the access to the market to include smallholder farmers, who tend to be marginalized in terms of gaining formal market access.

Although the traditional markets tend to offer lower product prices, they are located in higher-density areas, which serve the middle and elite classes. On the other hand, informal markets (to which smallholders have better access) tend to offer much higher product prices to smallholder farmers. However, their one disadvantage is that they offer no guarantees that sales will take place. Given the dichotomous access to the market access difference between smallholder and commercial farming, the arguments suggest that the commercial agricultural sector has supreme access to informal and formal markets that make smallholder farmers less attractive to the South Africans in the current conjuncture.

This analysis portrays smallholder farming as resource-poor farming that cannot sustain itself. Hence, the suggestion is made to implement agricultural transformation that seeks to equitably redistribute land to the previously disadvantaged communities. In the conceptualization of the agrarian transformation, the democratic government sought to level the playing field by ensuring representativeness in the structures of governance, equitable ownership across the racial divide, and the provision of adequate landholdings which had been obstructed under the apartheid dispensation (Galt et al., 2013). The question arises as to why the remnants of apartheid are essential in the current political dispensation, especially those affecting smallholder market access. It can be argued that the structural control of access to markets is highly consolidated within the generation of market access owners, and this may call for a critical review of the extent to which the current government has dismantled the apartheid structural control in order to favour of the victims of apartheid.

Given the significance and challenges that the smallholder sub-sector and the women in smallholder agro-food enterprises are experiencing in accessing formal markets and the related advantages, despite government interventions in the form of policies and development grants, this study sought to determine the effects of policies and development grants on the transformation of market access. Therefore, the objective

was to develop an empirical model that could be used to ensure that market access interventions would positively influence the transformation of the agro-food enterprises of women smallholders. We achieve these aims and objectives by structuring this chapter as follows, materials and methods, results and discussion, followed by the conclusion and recommendations.

4.3 MATERIALS AND METHODS

4.3.1 Study area

This study was carried out in the Free State province of South Africa, the economy of which relies on agriculture and mining (Bahta, Willemse & Grove, 2014). The Free State's agricultural sector is dynamic and provides opportunities for achieving sustainable livelihoods. In 2006, it was reported that about 69 000 people (2.3% of the Free State population) were working in the agricultural sector (STATS SA, 2007b). Nyam, Ojo, Belle, Ogundeji and Adetoro (2020) have reported that, of the agricultural activities in Free State province, smallholder livestock production is a significant economic occupation and creates employment for approximately 70% of people in rural areas around the world (Poole, 2017). This province is comprised of 32 000 square kilometres of cultivated land and 87 000 square kilometres of natural veld.

It has a surface area of 129 480 km², making it the fourth largest province in South Africa, covering 10.6% of the country's total area (Nyam et al., 2020). The Free State is subdivided into jurisdictional areas of five district council municipalities: Xhariep, Motheo, Lejweleputswa, Thabo Mofutsanyane, and Northern Free State (Molakeng 2020). These district councils are comprised of 20 local municipalities (STATS SA, 2006). The Free State is centrally situated among the remaining eight provinces. According to Bahta et al. (2014), the Free State is bordered by six provinces (the Eastern Cape, Northern Cape, Gauteng, KwaZulu-Natal, Northwest and Mpumalanga). This province is situated between the latitudes 26.6°S and 30.7°S of the equator, and between the longitudes 24.3°E, and 29.8°E of the Greenwich meridian, and lies at 1 0 29' South and 40 12' North of the Equator and 290 34' East and 350 0' East of the Greenwich meridian (Moeletsi and Walker, 2012).

4.3.2 Research Designs

This study followed the concurrent explanatory mixed-method design, where empirical data was collected through using survey methodology. Thereafter, the survey outcome was discussed by selected experts in four focus sessions to explain the results (Boucher, Pelaez, Parent, Plouffe & Comtois, 2020). In this design, a positivist philosophy was adopted first, and followed by the interpretive approach. However, from an epistemological standpoint, critics suggest that positivist methodology has a limited capacity for explaining human behaviour (Weed, 1995; Lawson & Floyd, 1996).

Several scholars see this approach as part and parcel of an instrumental, utilitarian trend in the modern world, which they argue lies at the heart of the growing sense of alienation (Sullivan, 1986, 1995; Bellah et al., 1983; Taylor, 1992; Buchanan, 1998), and moral malaise and social disintegration (Buchanan, 1998). According to Buchanan (1998), the positivist approach is a frame of mind that views the world in independent and independent variables (cause-and-effect). This view justifies complementing positivism with another philosophical approach in order to gain fundamental knowledge. In this context, the study used an interpretive approach to triangulate the views derived from the quantitative and qualitative approaches. This design, together with a combination of methods, appears to be best suited for investigating the complex issues arising, such as the state of transformation and market access for the agro-food enterprises of smallholder women in the Free State.

4.3.3 Data collection

Systematic methodologies were planned and executed to collect data in the various District Municipalities of the Free State. For the quantitative data collection, a simple randomized design was used. First, the smallholder women stakeholders in agro-food enterprises were identified. After the identification of the stakeholders, the population of the stakeholders for the study was calculated. In the sample, 10% of the randomly selected stakeholders were interviewed during the face-to-face meetings. These interviews formed the quantitative component of the study, which collected the data through a cross-sectional, questionnaire-based design that resulted in face-to-face interviews of 517 smallholder women who were conducting agro-food enterprises. Of

the 517 interviewees, the majority (37.91%) engaged in vegetable enterprises (27.85%), with horticulture, livestock, and processors enterprises combining to make up the balance (see Table 4.1).

Table 4.1: Sample representation of the women agro-food sector in Free State

Province			
Agro-food	Sector	Frequency	Percentages
Vegetables	Smallholder farmer	132	91,7
	Hawker	12	8,3
	Total	144	100,0
Livestock	Smallholder farmer	71	86,6
	Hawker	11	13,4
	Total	82	100,0
Horticulture	Smallholder farmer	81	89,0
	Hawker	10	11,0
	Total	91	100,0
Grains	Smallholder farmer	176	89,8
	Hawker	18	9,2
	Spaza owner	2	1,0
	Total	196	100,0
Processed	Smallholder farmer	3	75,0
	Hawker	1	25,0
	Total	4	100,0

Following this design, the transformation, market access, business ownership, and representatively were measured quantitatively using the semantic differential rating scales (1 to 7), where scale 1 was the lower and scale 7 was the highest rating. The qualitative data was collected through focus group sessions using the thematic guides. This data was used to explain the context of the quantitative results.

4.3.4 Data analysis

The analysis of the data in this study followed a two-stage process. First, the survey data were analysed based on the study's objectives, from which the quantitative data analysis was derived. Next, the qualitative data analysis was performed. This section will describe the data analysis employed for the study.

4.3.4.1 Quantitative data analysis

A hierarchical multiple linear regression model (HMLRM) was used to analyse the survey data. Before the application of this model, the conditions for HMLRM were tested and found compatible. The model specification of the HMLR model employed is presented below.

4.3.4.1.1 Model specification

Lewis (2007) pointed out that hierarchical regression is a concurrent process involving re-entering predictor variables into the analysis in steps based on theoretical inclination. Furthermore, Pedhazur (1982) demonstrated that hierarchical regression is essential for analysis that explains the variances as correlated to one another. In the first multilevel, the following variables were considered:

$$Y_{1i} = \alpha_{1i} + \beta X_{1i} + e_{1i} \quad (1)$$

where:

Y_{1i} = Transformation, α = Constant, = Market access, and = error term.

This level of the model was specified to test the effect of market access on transforming the agro-food enterprises of smallholder women in Free State province.

$$Y_{2i} = \alpha_{2i} + \beta X_{1i} + \beta X_{2i} + \beta X_{3i} + e_{2i} \quad (2)$$

This level of the model was specified to test the effect of market access, business ownership, and management control on the transformations of these farmers.

$$Y_{3i} = \alpha_{3i} + \beta X_{3i} + \beta X_{3i} + \beta X_{3i} \beta X_{4i} + e_{3i} \quad (3)$$

This final level of the model was used to specify the effects of market access, business ownership, and management control on the transformation of these farmers, and representability.

4.3.4.2 Qualitative data analysis

This study employed thematic analysis in its qualitative data analysis. In this analysis, three thematic areas were identified. These were:

- a) transformation and commodity value chains;
- b) levels of transformation in the agro-food enterprises of smallholder women in the district municipalities; and
- c) the rating of the level of transformation across agro-food commodities in Free State Province.

4.4 RESULTS AND DISCUSSION

The results of the transformation rating across the commodity and value chains are presented in Table 4.2.

Table 4.2: The rating of transformation across the commodity and value chain sector

Agro-food products	Sector	Mean	N	Std. Deviation	% of Total	Grouped Median
Vegetables	Smallholder farmer	4.5530	132	1.49459	91.7%	4.5352
	Hawker	3.9167	12	1.37895	8.3%	4.1250
	Total	4.5000	144	1.49123	100.0%	4.4937
Livestock	Smallholder farmer	4.6197	71	.97638	86.6%	4.5600
	Hawker	3.8182	11	.75076	13.4%	3.7778
	Total	4.5122	82	.98437	100.0%	4.4561
Horticulture	Smallholder farmer	4.1481	81	1.46723	89.0%	4.1667
	Hawker	4.4000	10	.96609	11.0%	4.4286
	Total	4.1758	91	1.41887	100.0%	4.2093
Grains	Smallholder farmer	4.3580	176	1.30154	89.8%	4.5046
	Hawker	4.8333	18	1.24853	9.2%	4.8000
	Spaza owner	5.5000	2	.70711	1.0%	5.5000
	Total	4.4133	196	1.29995	100.0%	4.5417
Processed	Smallholder farmer	3.6667	3	1.15470	75.0%	3.6667
	Hawker	3.0000	1	1.04300	25.0%	3.0000
	Total	3.5000	4	1.00000	100.0%	3.5000

Source: survey, 2020

The participants in the rating processes comprised smallholders, hawkers, and spaza shop owners. The results showed that hawkers were significantly less confident in the levels of the transformation that are occurring regarding processed agro-food products (M = 3.000, SD = 1.043), livestock (M = 3.818, SD = 0.7508), and vegetables (M = 3.917, SD = 1.379). However, they were greatly satisfied with the transformations that were occurring in grains (M = 4.833, SD = 1.248), and horticulture (M = 4.4000, SD = 0.966).

On the other hand, smallholder farmers appeared to be content with the transformation levels, except for processed agro-food products (M = 3.667, SD = 1.154). The results for smallholder farmers appear to be counter-intuitive, especially regarding livestock, horticulture, and grains, because land reforms have failed to provide them with adequate land to use for producing these commodities.

It is noted that the redistributive land reforms centre on the empowerment of smallholder farmers and black farmers. These farmers were seen as being critical in attaining household food security (Tamako et al., 2020). However, the lack of infrastructure, capital, and other resources has obstructed this farming system in providing national food security needs (Dobermann & Nelson, 2015; FAO, 2017). Smallholder farming turns to have similar problems related to a lack of productive capacity (Mwangi et al., 2020).

Figure 4.1 below shows that the importance of transformation is rated low, as compared with business and sale experience. It will be seen that smallholder women's agro-food enterprises operating in the grains sub-sector appear to have a slightly higher rating on the importance of the transformation, relative to other commodities. This rating might imply that grains producers experience a competitive advantage where they operate in a transformed business environment, rather than in an environment where transformation is limited.

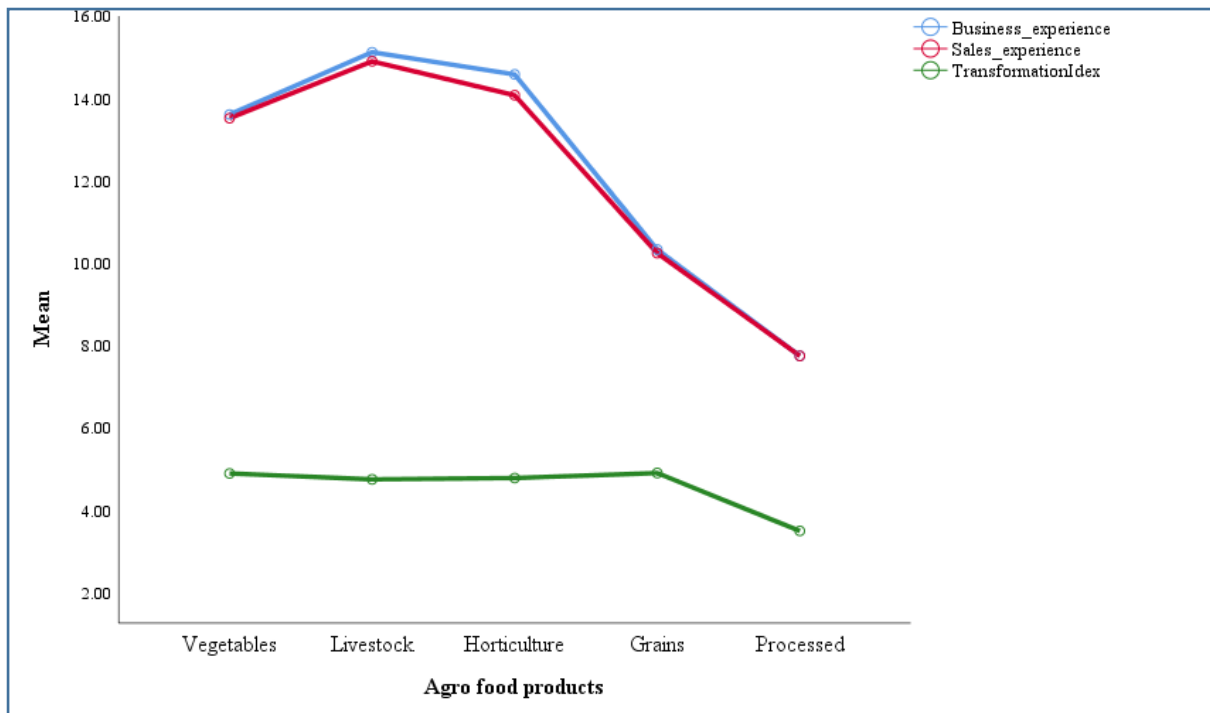


Figure 4.1: Rating of the transformation by smallholder women agro-food enterprises

4.4.1 Market access for agro-food enterprises

Figure 4.2 below shows that all the respondents from commodities acknowledged that, if a certain degree of transformation is achieved, the smallholder women operating in the agro-food sub-sector would achieve a certain level of market access. The results also suggest that in a moderately transformed agro-food sub-sector, market access for these farmers could be enhanced. However, judging from the level of transformation of the entire agricultural sector in South Africa (which is moderately transformed), it appears that this observation could be challenging to interpret as a true reflection of South African society.

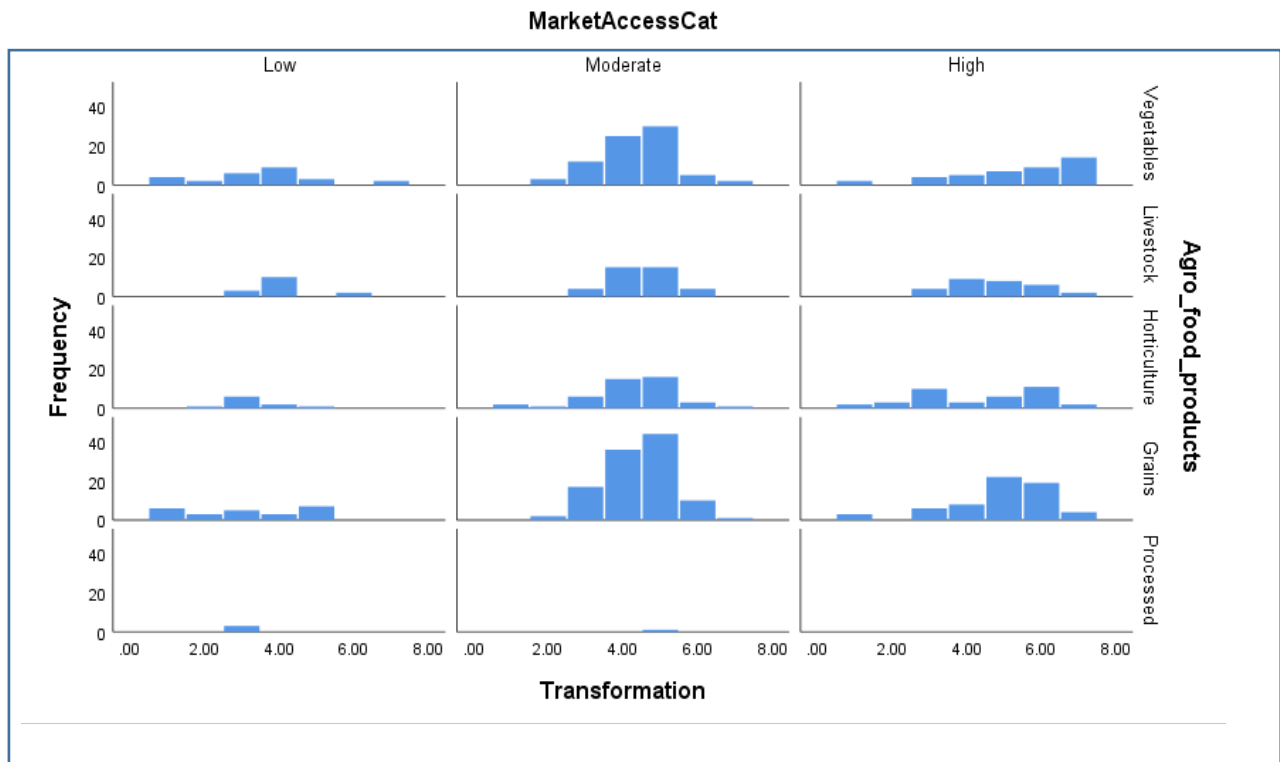


Figure 4.2: Evaluation of the effect of market access on the transformation of the agro-food value chain

The study further investigated the transformation level across the Free State Province (see Table 4.3).

Table 4.3: The rating of the level of transformation across district municipalities in Free State Province

Levels of Transformation	District Municipality	N	% of Total N	Mean	Std. Deviation
Low transformation	Lejweleputswa	18	15.0%	2.6667	.68599
	Mangaung Metro	75	62.5%	2.4133	.82353
	Thabo Mofutsanyana	26	21.7%	2.9615	.19612
	Xhariep	1	0.8%	1.0000	.
	Total	120	100.0%	2.5583	.75366
Moderate transformation	Lejweleputswa	57	19.0%	4.6667	.47559
	Mangaung Metro	105	35.0%	4.5238	.50183
	Thabo Mofutsanyana	136	45.3%	4.4853	.50163
	Xhariep	2	0.7%	4.5000	.70711
	Total	300	100.0%	4.5333	.49972
High transformation	Lejweleputswa	8	8.2%	6.2500	.46291
	Mangaung Metro	28	28.9%	6.4643	.50787
	Thabo Mofutsanyana	60	61.9%	6.2000	.40338
	Xhariep	1	100.0%	7.0000	.
	Total	97	100.0%	6.2887	.45549

Source, survey, 2020

According to the results, the higher levels of transformation are experienced in developed district municipalities, such as Mangaung Metro (M = 6.46, SD= 0.51), followed by Lejweleputswa (M = 6.25, SD= 0.46), and then Thabo Mofutsanyana (M = 6.20, SD = 0.40). These transformation levels imply that the rural areas where many smallholder women farmers are based do not seem to benefit from the transformational impacts that the government is affecting.

The high rates of transformation in urban areas can be attributed to rapid population growth, increasing land shortages, urbanization, better transportation and communications infrastructure, higher incomes, and the emerging middle class, at least in parts of Africa (Reardon et al., 2015; Bachewe et al., 2018). However, Reardon et al. (2015) also argued that high transformation rates are important, even in rural areas, and as such, developments in rural areas could drive the overall transformation and efficiency of food value chains.

4.4.2 The relationship of the transformation indicators for smallholder women agro-food enterprises

An analysis of the relationship between transformation indicators is crucial for assessing the effects of an indicator on the other indicators. In this study, the relationships that exist among these indicators are presented in Table 4.4 below.

Table 4.4: Descriptive analysis and correlation coefficient for the transformation indicators

Variables	Means (SD)	(1)	(2)	(3)	(4)
Business Ownership (1)	5.070 (1.157)	1			
Management control (2)	4.954 (1.233)	.506***	1		
Markets Access (3)	4.878 (1.259)	.482***	.301***	1	
Representative (4)	4.487 (1.292)	.378***	.382***	.354***	1

Notes: *** = $P < 0.000$; ** = $P < 0.05$.

Source, Survey, 2020

The results show that business ownership was rated as the most critical indicator (M = 5.070, SD = 1.157) of the transformation of these enterprises, followed by management control (M = 4.954, SD = 1.233), market access (M = 4.878, SD = 1.259) and representative (M = 4.487, SD = 1.292), respectively. Viewing their relationship, it is clear that all these indicators have significant positive relations.

The results indicate that the indicator for business owner has a large relationship ($r = 0.506$, $p = 0.000$) with management control of the business, and a slightly large relationship ($r = 0.482$, $p = 0.000$) with market access and medium relation ($r = 0.382$, $p = 0.000$). The market access capabilities of these enterprises are largely influenced by business ownership, relative to management control.

On the other hand, the results show that management control ($r = 0.382$, $p = 0.000$) and business ownership ($r = 0.378$, $p = 0.000$) are the keys to ensuring the representativity of the smallholder women agro-food enterprises, relative to market access. The significant correlation between market access and management control agrees with the findings described by Nwafor et al. (2020). They reported that cooperative membership positively and significantly influenced market participation among the respondent smallholder livestock farmers in South Africa. Karavidas (2020) argued that increased market access is attributed to institutional arrangements, which, in a way, confirmed the finding above.

However, it has been reported by Nwafor (2015) that smallholder farmers lack organization, which makes it difficult for them to benefit from economies of scale. These results are not surprising because most smallholder women operating enterprises are disadvantaged in acquiring productive land, even after the advent of the new democratic era (Venter, 2020; Netshipale et al., 2020). Consequently, Mukarati et al. (2020) has reaffirmed the view that the government's policy commitments regarding land allocation should favour women and people with disabilities in the implementation of the land reform processes. Mmbando (2014) and Sinyolo et al. (2017) have reported that, unlike management control, business ownership, transformation, the smallholder farmer's market access, and age are positively correlated to market access, and negatively correlated to gender difference of the smallholder farmers in favour of the female farmers.

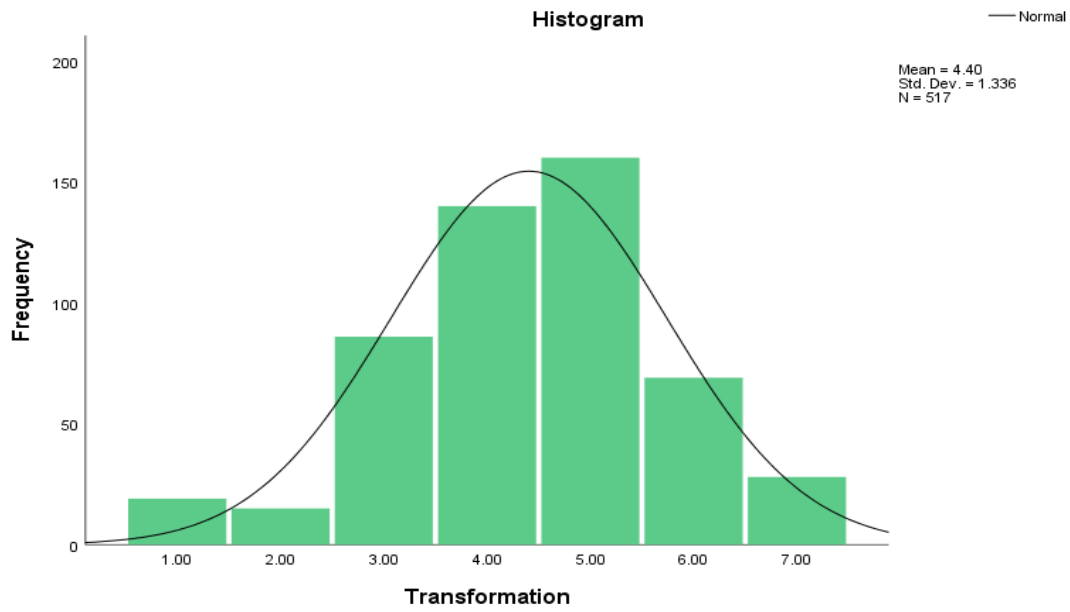


Figure 4.3: Test for the normality of the transformation

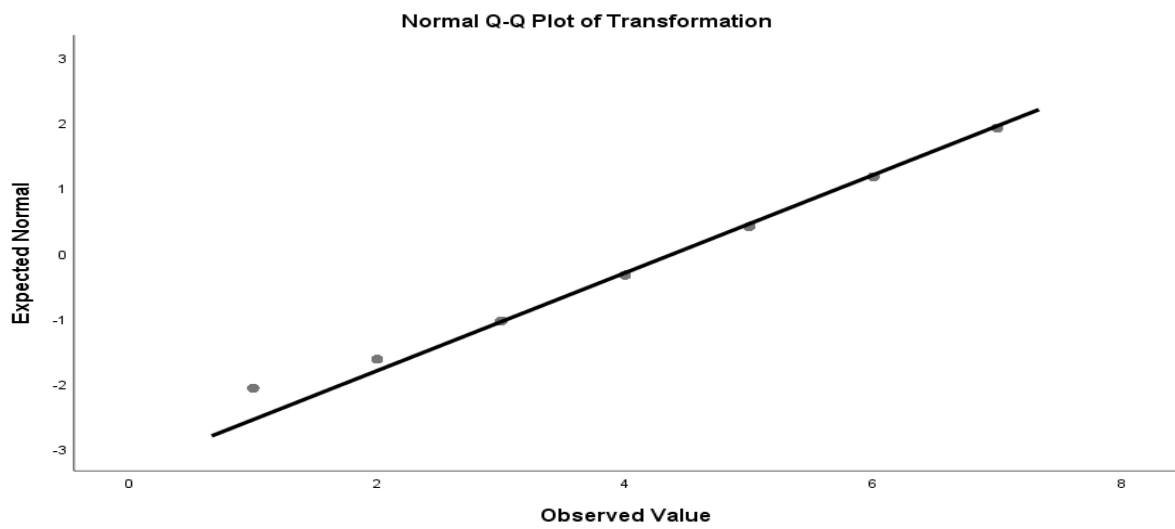


Figure 4.4: The Q-Q normality plot test for the transformation

4.4.3 Effects of market access on the transformation the agro-food enterprises of smallholder women

The persistent inability of smallholder farming sub-sectors to secure market access in the formal market environment has raised doubts about whether this farming sector could be transformed into a commercially viable industry that might address the economic challenges faced in rural areas in Free State province. Hence, the question arises as to whether market access is a function of transformation. The investigation discussed in this sub-section provides empirical results regarding the impact of market access on the transformation of this farming sector.

A hierarchical multiple regression analysis (HMRA) was used to test the hypothesis that market access could account for a significant proportion of the variance in the transformation of the agro-food enterprises of smallholder women in the Free State province, beyond that already accounted for by the business ownership, management control, and representative indicators. Before interpreting the results of the HMRA, several assumptions were tested, and checks were performed. Firstly, a histogram (Figure 4.3) and Q-Q plot (Figure 4.4) indicated that each transformation was normally distributed. Second, the Mahalanobis distance results did not exceed the critical areas of 16.27 for any data file, meaning that multicollinearity outliers were not of concern. Finally, the relatively high tolerances for all the predictors in the final regression model suggest that multicollinearity would not interfere with the ability to interpret the outcome of the final model.

In Model 1 of the hierarchical multiple linear regression (see Table 4.5 below), it was found that market access accounted for 11.5% of the variance in the transformation of the agro-food enterprises of smallholder women: $R\text{-squared} = 0.115$, $F(2, 515) = 67.088$, $p = 0.000$. The second model, business ownership and management control, were added to the regression model. It accounted for a variance of 27.9% of the variance in the enterprises' transformation in question. The additional 27.9% variance in the transformation changes of smallholder women's agro-food enterprises indicated an $R\text{-squared}$ of 0.163. In the full model, adding to variance representative in the previous model causes the model to account for a 35.0% variance in transforming the agro-food enterprises of smallholder women in Free State Province.

In the view of Cohen's (1988) conventions, a combined effect of this magnitude could be considered as significant ($F = 0.20$). The unstandardized and standardized regression coefficients and the semi-partial correlations (sr^2) for each predictor were reported. The transformation accounts for the 9.9% uniqueness of the transformation variance of these farmers in the last model. Business owners reflect the second highest (8.4%) contribution to the uniqueness of the transformation of these enterprises. On the other hand, management control (0.8%) and market access (0.4%) contributed the least to the uniqueness of the final model.

Table 4.5: Effects of market access on the transformation of smallholder women agro-food enterprises

Model	Variables	Coefficient			F ²	r ²	Correlations			Collinearity Statistics	
		B	SE	Beta			Zero-order	Part	Sr ²	Tolerance	VIF
1	(Constant)	2.647***	.222								
	Markets Access	.360***	.044	.339	0.130	0.115	.339	.339	.115	1.000	1.000
2	(Constant)	.837***	.265								
	Markets Access	.126***	.046	.118	0.130	0.115	.103	.121	.015	.763	1.310
	Business ownership	.415***	.055	.360	7.578	.000	.284	.317	.101	.625	1.601
	Management control	.172***	.047	.159	3.637	.000	.136	.159	.019	.740	1.352
3	(Constant)	.422	.258		1.635	.103					
	Markets Access	.059**	.044	.056	1.344	.180	.048	.059	.004	.733	1.365
	Business Ownership	.360***	.053	.312	6.851	.000	.244	.290	.084	.612	1.633
	Management control	.093**	.046	.086	2.011	.045	.072	.089	.008	.701	1.426
	Representative	.314**	.042	.304	7.516	.000	.268	.315	.099	.776	1.288
a. Dependent Variable: Transformation											

Notes

1. Model 1: $R^2 = 0.115$, R Squared change = 0.115; Model 2: $R^2 = 0.279$, R Squared change = 0.163, Model 3: $R^2 = 0.350$, R Squared change = 0.072.
2. *** = $P < 0.001$, ** = $P < 0.05$ and * = $P < 0.01$.
3. Model 1: $F(1, 515) = 67.088$, Model 2 = $F(3, 513) = 66.018$ and Model 3 = $F(4, 512) = 68.993$.

The results show that the hypothesis, which is that access to market accounts for a significant proportion of the variance in the transformation of the smallholder women's agro-food enterprises, was to be rejected at a 5% p-value. Thus, although market access is a substantial contributor to change in this farming system, its impact was relatively lower than the impacts of the compounding variables within the respective models were. Furthermore, the results suggest that, when business ownership,

management control and representative are included in the model with market access, market access is still positively significant ($\beta = 0.059$, $p = 0.05$) for influencing the transformation of the agro-food enterprises of smallholder women.

These results are also supported by Mmbando (2014), who reported that market access is the engine of economic development and structural transformation. This assertion suggests that market access has a significant influence on the modernization of smallholder development. Furthermore, market access is of particular importance because Africa, under the Comprehensive Africa Agriculture Development Programme (CAADP), has sought to prioritize agricultural transformation by mobilizing the continental resources. This is to be achieved by providing resources to men and women on small farms in order to achieve greater significant development.

4.5 LESSONS LEARNT

The results have shown that business ownership, representability, management control, and market access are critical for transforming smallholder women's food enterprises. However, it is clear from the size of the effect that market access has the least significant impact on the modernization of these farming enterprises. These results imply that higher priorities should be aimed at empowering these farmers, and should ensure that they are assisted to acquire ownership of productive assets and are also allowed to be represented at strategic levels in marketing institutions and related corporate entities.

In summary, the following points were ascertained:

- a) Transformation has a positive impact on market access.
- b) Metro municipalities, as compared with rural district municipalities, have a high propensity for change.
- c) The market indicator is highly correlated with business ownership ($r = 0.482$, $p = 0.000$) and moderately correlated with management control ($r = 0.301$, $p = 0.000$)
- d) Market access has the least impact on the transformation of smallholder women's food enterprises.

4.6 CONCLUSION AND RECOMMENDATIONS

In conclusion, the results described above present the status of the transformation in the agro-food enterprises of the respondent smallholder women. The results reveal that smallholder farmers, unlike the hawkers, appear to experience some level of transformation in their enterprises. The study also shows that, according to the respondents, business ownership is critical for transformation. Finally, this part of the research study underscores the fact that change in smallholder farming is more pronounced in the metro municipality than in the rural district municipalities.

Of importance, the study revealed that the transformation of the agricultural sector is positively correlated with market access. This correlation implies that an increase in transformational changes could give rise to an increase in market access. This result appears to be counter-intuitive in the South African agricultural environment, where moderate transformation has had no significant impact on market access to smallholder farming.

Furthermore, the results revealed that, although market access is necessary to transform the agro-food enterprises of smallholder women, its impact is lower than business ownership, representability, and management control. Therefore, for the transformation of this sector, it appears that empowering the smallholder women

conducting agro-food enterprises, through land ownership and representation in governance structures, could have a more meaningful impact than to simply co-opt them into the marketing access programmes.

In this regard, the study results indicate that the fundamental tenet of transformation is based on empowerment tools, more than on the market access factor. This observation does not mean that market access is not essential. Nevertheless, this indicates that, for the Free State province to modernize this farming system, extension services should be adapted in certain aspects, rather than leaving these services to focus only on market access initiatives. Accordingly, extension services should be amended to ensure that smallholder farmers could acquire ownership of land, representation in the value chain, and participation in the management dealings of corporate entities regarding market access. Market access was shown to play a minor role in empowering these farmers when other predictor variables were included in the model. Accordingly, business ownership and participation in the value chain would be critically important for empowering the smallholder farmers dealt with in this study. These findings provide an opportunity for making policy amendments that would endeavour to empower women in agriculture.

REFERENCES:

- Bachewe, F. N., Berhane, G., Minten, B., & Taffesse, A. S. (2018). Agricultural transformation in Africa? Assessing the evidence in Ethiopia. *World Development*, 105, 286-298.
- Bahta, Y. T., Willemsse, B. J., & Grove, B. (2014). The role of agriculture in welfare, income distribution, and economic development of the Free State Province of South Africa: A CGE approach. *Agrekon*, 53(1), 46-74.
- Behrens, K., Gaigné, C., Ottaviano, G.I.P., & Thisse, J.F. (2006). Is Remoteness a Locational Disadvantage? *Journal of Economic Geography* 6, 347–368.
- Blein, R., Bwalya, M., Chimatiro, S., Faivre-Dupaigre, B., Kisira, S., Leturque, H., & Wambo-Yamdjeu, A. (2017). Agriculture in Africa: transformation and outlook. NEPAD, Midrand, RSA.

- Boucher, V. G., Pelaez, S., Parent, A. A., Plouffe, J., & Comtois, A. S. (2020). Momentum During a Running Competition: A Concurrent Explanatory Mixed-Methods Study. *International Journal of Exercise Science*, 13(5), 615.
- Buchanan, D. R. (1998). Beyond positivism: humanistic perspectives on theory and research in health education. *Health Education Research*, 13(3), 439-450.
- Clough, D. R., & Piezunka, H. (2020). Tie dissolution in market networks: A theory of vicarious performance feedback. *Administrative Science Quarterly*, 0001839219899606.
- Dobermann, A., & Nelson, R. (2015). *GSDR 2015 Brief: transformative changes in agriculture and food systems*. Technical Report.
- FAO (2017). The State of Food and Agriculture: Leveraging Food Systems for Inclusive Rural Transformation. Available at: <http://www.fao.org/3/al7658e.pdf>
- Galt, R. E., Parr, D., Kim, J. V. S., Beckett, J., Lickter, M., & Ballard, H. (2013). Transformative food systems education in a land-grant college of agriculture: The importance of learner-centred inquiries. *Agriculture and Human Values*, 30(1), 129-142.
- Haan, N., Bellah, R., Rabinow, P. and Sullivan, W. (eds) (1983) *Social Science as Moral Inquiry*. Columbia University Press, New York.
- Janowski, C.C.; Kherallah, M.; Minot, N.; Kachule, R.; Soule, B.G.; Berry, P., (2017). Impact of agricultural market reforms on smallholder farmers in Benin and Malawi. Available online: <http://www.ifpri.org/divs/mtid/dr/2006/200102/v1toc.pdf> (accessed on 15 December 2017).
- Karavidas, D. (2020). Market Access and Home Market Effect. *Open Economics*, 3(1), 42-49.
- Mmbando, F. E. (2014). *Market participation, channel choice, and impacts on household welfare: the case of smallholder farmers in Tanzania* (Doctoral dissertation).

- Moeletsi, M. E., & Walker, S. (2012). Assessment of agricultural drought using a simple water balance model in the Free State Province of South Africa. *Theoretical and applied climatology*, 108(3-4), 425-450.
- Molakeng, M. H. (2020). *Workplace adversities and resilience in a group of designated social workers in the Free State* (Doctoral dissertation, North-West University (South Africa)).
- Mukarati, J., Mongale, I., & Makombe, G. (2020). Land redistribution and the South African economy. *Agricultural Economics*, 66(1), 46-54.
- Mutea, E., Rist, S., & Jacobi, J. (2020). Applying the Theory of Access to Food Security among Smallholder Family Farmers around North-West Mount Kenya. *Sustainability*, 12(5), 1751.
- Mwangi, V., Owuor, S., Kiteme, B., Giger, M., Jacobi, J., & Kirui, O. (2020). Linking Household Food Security and Food Value Chains in North West Mt. Kenya. *Sustainability*, 12(12), 4999.
- Netshipale, A. J., Oosting, S. J., Mashiloane, M. L., van Reenen, C. G., de Boer, I. J., & Raidimi, E. N. (2020). Agriculture in land reform farms: Impact on livelihoods of beneficiaries in the Waterberg district, South Africa. *Land Use Policy*, 97, 104710.
- Nwafor, C. U. (2015). *Prospects of commercialization among small scale potato farmers in Bizana* (Doctoral dissertation, Bloemfontein: Central University of Technology, Free State).
- Nwafor, C. U., Ogundeji, A. A., & van der Westhuizen, C. (2020). Adoption of ICT-Based Information Sources and Market Participation among Smallholder Livestock Farmers in South Africa. *Agriculture*, 10(2), 44-
- Nyam, Y. S., OJO, T., Belle, A. J., Ogundeji, A., & Adetoro, A. (2020). Analysis of profit efficiency among smallholder sheep farmers of N8 development corridor Free State, South Africa.
- Okech, S. H., Gaidashova, S. V., Gold, C. S., Nyagahungu, I., & Musumbu, J. T. (2005). The influence of socio-economic and marketing factors on Rwanda's banana production: Results from a Participatory Rural Appraisal. *The*

International Journal of Sustainable Development & World Ecology, 12(2), 149-160.

Peluso, N. L., & Ribot, J. (2020). Postscript: A Theory of Access Revisited. *Society & Natural Resources* 33(2): 300-306.

Reardon, T., Tschirley, D., Minten, B., Haggblade, S., Liverpool-Tasie, S., Dolislager, M & Ijumba, C. (2015). Transformation of African agrifood systems in the new era of rapid urbanization and the emergence of a middle class. *Beyond a middle-income Africa: Transforming African economies for sustained growth with rising employment and incomes*, 62-74.

Sinyolo, S., Mudhara, M., & Wale, E. (2017). The impact of social grant dependency on smallholder maize producers' market participation in South Africa: Application of the double-hurdle model. *South African Journal of Economic and Management Sciences*, 20(1), 1-10.

STATS SA. 2007a. Income and Expenditure of Households 2005. Pretoria: Statistics South Africa.

STATS SA. 2006. Free State provincial profile 2004. Report No. 00-91-04 (2004). Pretoria: Statistics South Africa.

Sullivan, W. (1982) *Reconstructing Public Philosophy*. University of California Press, Berkeley.

Tamako, M. N., Chitja, J. M., & Mudhara, M. (2020). 1921 Exploring agricultural knowledge systems and smallholder farmers' empowerment: Implication on household food security (STUDENT PAPER). In *Book of Abstracts* (p. 149).

Taylor, C. (1995). Explanation and practical reason. In Taylor, C, *Philosophical Arguments*. Harvard University Press, Cambridge, pp. 34-60.

Venter, C. (2020). Land reform: a package deal?: Current Affairs. *FarmBiz*, 6(1), 11-13.

CHAPTER 5:
**THE EFFECTS OF THE TRANSFORMATION FACTORS ON WOMEN AGRO-
FOOD ENTERPRISES**

ABSTRACT

This study measures the effect of the transformation factors on the agro-food enterprises of women in the Free State Province in South Africa. Stratified random sampling techniques were employed to obtain a sample size of 517 respondents. The data were analysed through using a step-wise multi-regression model. The results indicate that all the responsive variables were significant in affecting agro-food enterprises. However, business ownership (beta = 0.334, p = 0.000) is shown to have a key effect on the agro-food enterprises of women, relative to representativity (beta = 0.315, p = 0.000) and management control (beta = 0.087, p = 0.000). The study concluded that business ownership, representation of women, and management control in these enterprises are necessary for transforming these agro-food enterprises. Therefore, it is recommended that the policy on women's empowerment be amended to emphasize these three tenets of transformation.

Keywords: transformation, women, food, enterprise, ownership

5.1 INTRODUCTION

Transforming the agro-food enterprises of women in South Africa is critical because women comprise most of the South African population, and are negatively affected by food insecurity, poverty, and unemployment (Chakona and Shackleton, 2017). Similarly, women make up a large portion of the global population, yet their contribution to the worldwide economy continues to be underestimated (Rudhumbu et al., 2020).

Furthermore, studies have recognized that women's entrepreneurship is an effective method for building an entrepreneurial society, when augmented by providing equal job opportunities, based on gender equality and women's empowerment (Tambunan,

2009; Khan et al., 2020). However, despite the advancement of general transformation initiatives in South African society, women have experienced limited improvement in their empowerment. Thus, women's businesses are mainly survivalist in nature, with little or no prospect for becoming commercialized.

This experience has forced women to opt for survivalist entrepreneurship as their mode for becoming self-sufficient, by venturing into small-scale businesses (Gano-An and Gempes, 2020). Nambiar, Sutherland and Scheepers (2020) reported that women entrepreneurs positively influence national economic growth and employment levels. Other studies confirm the above assertion, through statistics that show that women now constitute more than a third of all formal business operators in the global economy (Rudhumbu et al., 2020; Chinomona and Maziriri, 2015; Nxopo, 2014). This study investigates the effects of transformation factors on the agro-food enterprises of women in the Free State Province of South Africa.

5.2 RESEARCH METHOD

5.2.1 Methodology

The study was carried out in four district municipalities (Lejweleputswa, Mangaung Metro, Thabo Mofutsanyana, and Xhariep) in the Free State Province of South Africa. The province comprises urban, peri-urban, and rural areas, with various agricultural economic activities being undertaken, ranging from grain production, livestock, crop production, fruit production, and agro-processing. In this province, both black and white farmers are involved in smallholder and commercial farming. However, black farmers dominate the smallholder farming sector, while white farmers dominate commercial farming. Regarding gender participation, women have been marginalized in their involvement in both the smallholder and commercial farming sectors. Furthermore, their involvement in the agro-food chain is meagre.

5.2.2 Research design and data collection

In this study, a concurrent mixed method design was used, with the survey being utilized to collect the quantitative data. On the other hand, face-to-face interviews were used to collect the qualitative data. Thus, the quantitative data were used as the

primary research findings, and the qualitative data were used to provide complementary information to confirm the realities experienced by entrepreneurs. The primary data for this study were collected through using a structured, closed-ended questionnaire. A stratified random sampling technique was employed for choosing the required sample for the study. In the sample, smallholder farmers comprised the majority (89.6%) of the participants, followed by hawkers (10.1%) and spaza shop owners (0.4%) (see Table 5.1 below). A total of 517 respondents were selected.

5.2.3 Data analysis

The data were analysed through using descriptive statistics, correlation analysis, and a stepwise multiple regression model. The descriptive analysis provided the study with a classification of the respondents according to their respective sectors, agro-food products, district municipality, educational achievements, and backgrounds. Then, the Pearson correlation provided the bivariate correlation coefficients, while the stepwise multiple regression provided regression coefficients.

5.2.4 Model specification

The stepwise multiple regression model was expressed in three steps. In Step 1, the effect of business ownership on the agro-food enterprises was assessed, using the following equation:

$$Y = B_0 + B_1 X_1 + e_1 \tag{1}$$

The second step included the variable representativity as the second factor to determine its effect on the agro-food enterprises. The formula used is outlined below:

$$Y = B_0 + B_1 X_1 + B_2 X_2 + e_2 \tag{2}$$

Lastly, the effect of the agro-food enterprises was determined according to three transformational factors. First, this determination was calculated by adding management control variables into the equation, which had business ownership and representativity.

$$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + e_3 \dots\dots\dots(3)$$

where:

Y = Agro-food enterprises

B₀ = intercept

B_i = regression coefficients [i = 1, 2, and 3]

X₁ = Business ownership

X₂ = Representative

X₃ = Management control.

5.3 RESULTS AND DISCUSSION

5.3.1 Socioeconomic characteristics of the respondents

The results show that, on average, the respondents are aged 45.9 years (see Table 5.1 below). The results further revealed that respondents' business (M = 12.7, SD = 10.0) and sale experiences (M = 12.6, SD = 10.0) in years are acceptable (see Figure 5.1 and Figure 5.2, respectively, below).

Table 5.1: Demographic and descriptive analysis of the agro-food enterprises

Descriptive Statistics	Mean	Std. Deviation
Age (in years)	45,9	11,9
Business experience	12,7	10,0
Sales experience	12,6	10,0

The sectorial demographic results show that 89.6% of the respondents come from the smallholder farming sector, relative to 10.1% from the hawker sector and 0.4% from spaza enterprises. About 37.9% of the agro-food products dealt in by women in this study comprise grains, followed by vegetables at 27.9%, and 17.6% horticultural produce, while a few of the women raise livestock (15.9%) and prepare processed foods (0.8%). The respondents are drawn from four district municipalities, with Thabo Mofutsanyana (42.9%) and Mangaung (40.2%) having the most participants.

Table 5.2: Descriptive analysis of the agro-food enterprises

Demographic Statistics	Frequency	Percent (%)
Sector		
Smallholder farmer	463	89,6
Hawker	52	10,1
Spaza owner	2	0,4
Agro-food products		
Vegetables	144	27,9
Livestock	82	15,9
Horticulture	91	17,6
Grains	196	37,9
Processed	4	0,8
District Municipality		
Lejweleputswa	83	16,1
Mangaung Metro	208	40,2
Thabo Mofutsanyana	222	42,9
Xhariep	4	0,8
Educational Achievement		
Primary	151	29,2
Secondary	286	55,3
Certificates	35	6,8
Diploma	11	2,1
Degree	2	0,4
Post-graduate degree	1	0,2
None	31	6,0
Educational background		
Agriculture	160	30,9
Science	125	24,2
Commerce	11	2,1
Engineering	34	6,6
Humanities	7	1,4
Medicine	174	33,7
None	6	1,2

Source: Survey, 2020

The results reflect that 88.3% of the respondents are poorly educated (see Table 5.2 and Figure 5.3 below). It is encouraging that the majority of the respondents came from medical (33.7%) and agricultural (30.9%) backgrounds.

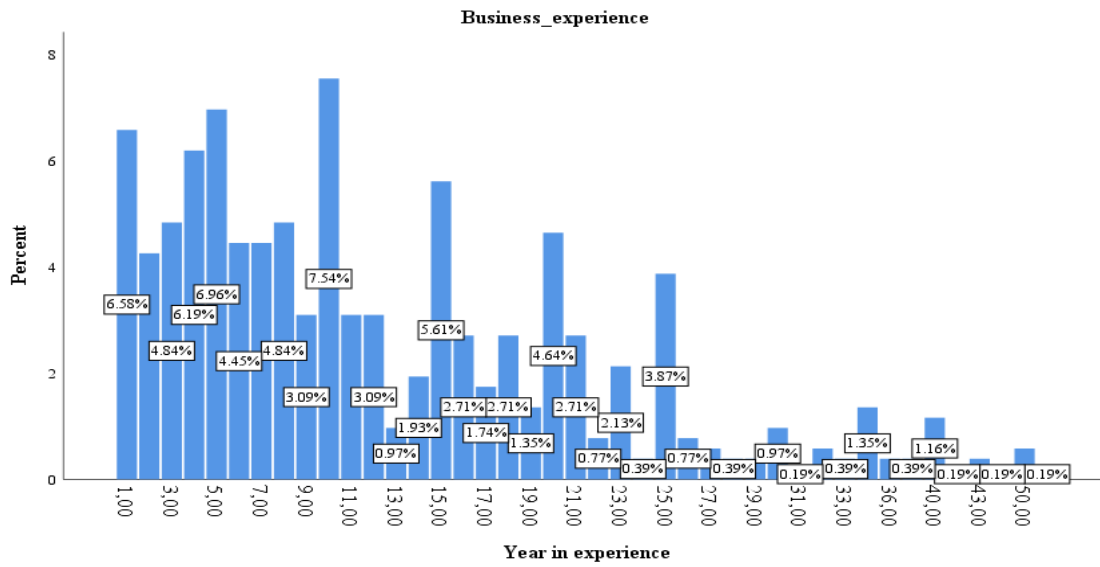


Figure 5.1: The business experience of the women in agro-food enterprises

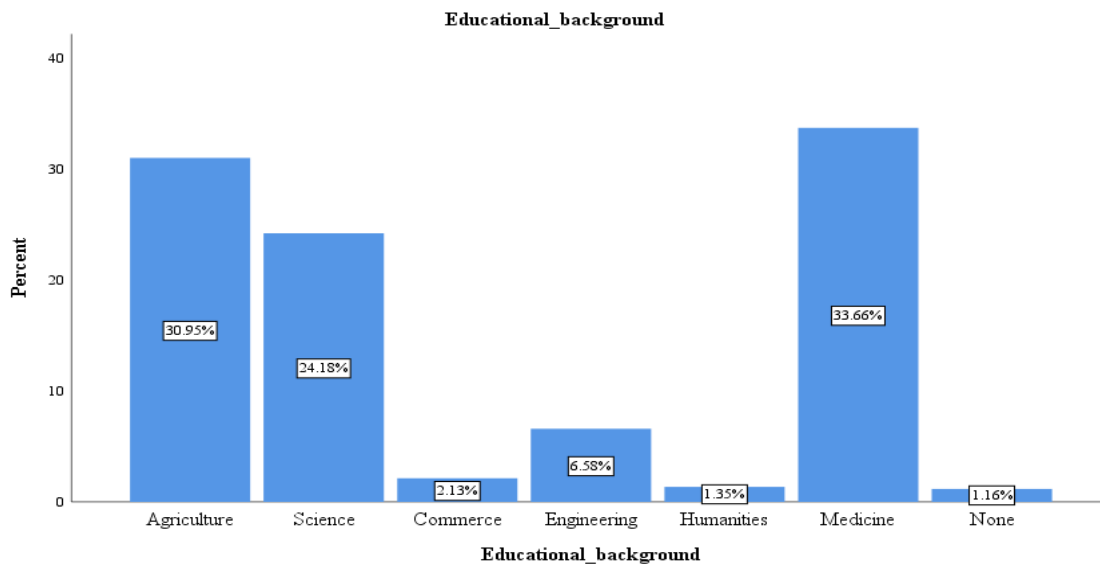


Figure 5.2: The educational background of the women in agro-food enterprises

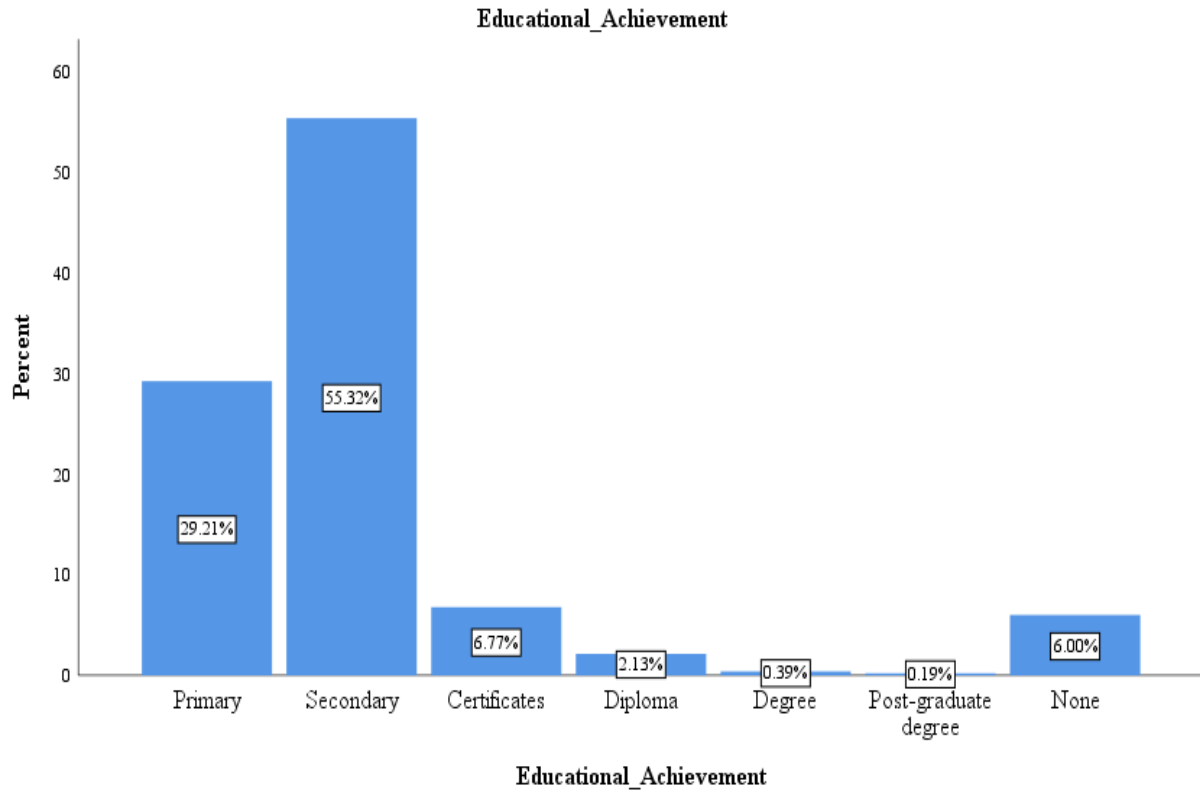


Figure 5.3: The educational achievement of women in agro-food enterprises

5.3.2 Correlation coefficients of the transformation factors on women’s agro-food enterprises

Before the use of the stepwise multiple regression, several assumptions were evaluated. First, the normality of the residual assumption was tested by using a histogram (see Figure 5.4 below) and P-P Plot (see Figure 5.5 below). The tests showed that the residuals for the transformation of the women’s agro-food enterprises were normally distributed.

5.3.2.1 Normality test of transformation residual

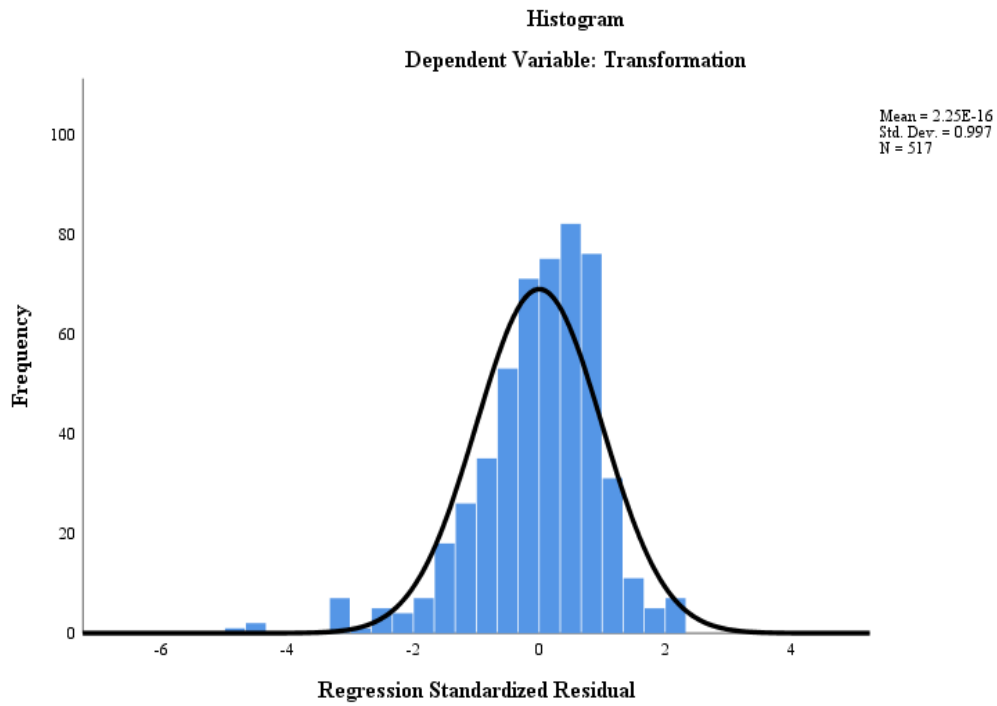


Figure 5.4: The test of normality using a histogram

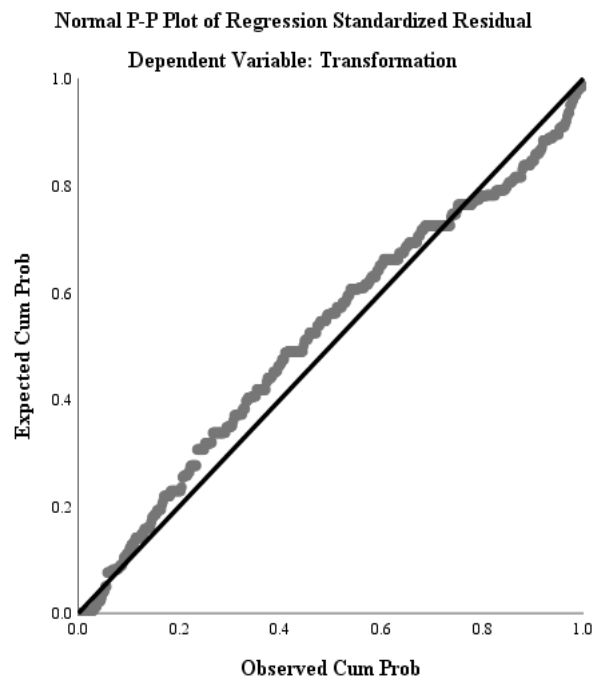


Figure 5.5: The test of normality using a P-P Plot

Secondly, Figure 5.6 below was inspected in order to evaluate whether the transformational residual met the homoscedasticity assumptions. According to the result, the homoscedasticity assumptions were met.

5.3.2.2 Homoscedasticity test of transformation residual

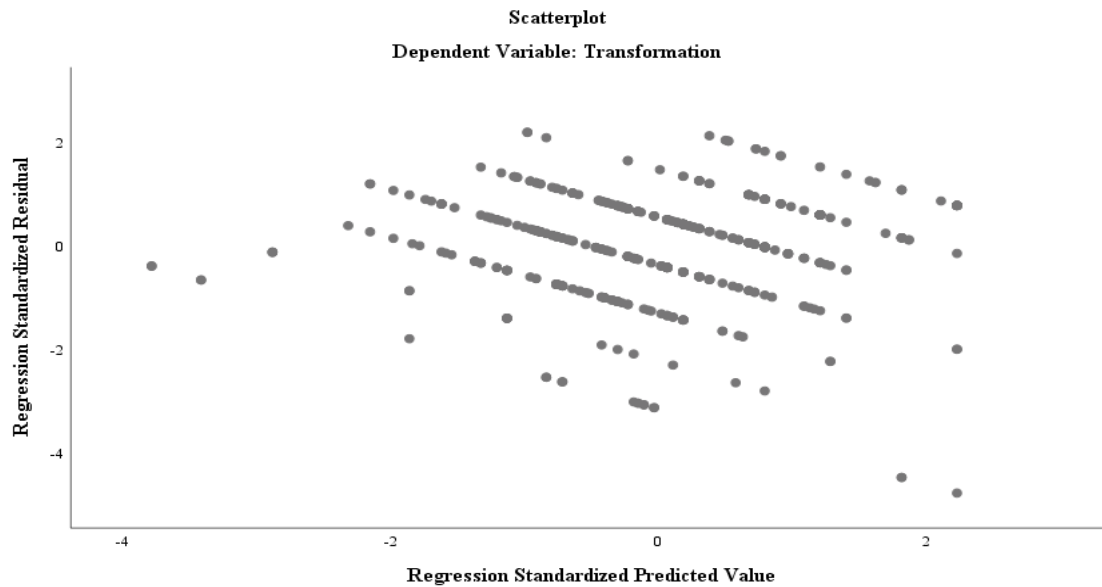


Figure 5.6: The test of homoscedasticity using a scatter plot

5.3.2.3 Multivariate outliers test of transformation residual

Thirdly, the multivariate outliers were determined using the Mahalanobis distance (see Table 5.3 below). The result shows that the Mahalanobis distance does not exceed the critical chi-squared for two degrees of freedom at alpha equals 0.001 of 16.266 for any cases in the data file, indicating that multivariate outliers were not of concern.

Table 5.3: Multivariate outliers test of the transformation residual

Residuals Statistics	Minimum	Maximum	Mean	Std. Deviation
Predicted Value	1,4227	6,1587	4,4043	0,78785
Residual	-5,15871	2,36772	0,00000	1,07853
Std. Predicted Value	-3,784	2,227	0,000	1,000
Std. Residual	-4,769	2,189	0,000	0,997

a. Dependent Variable: Transformation, N = 517., Source: survey, 2020

5.3.2.4 Pearson correlation coefficients of the transformation factors of the agro-food enterprises

Pearson's correlation coefficient (r) was determined (see Table 5.4 below) to assess the relationship between transformation and other response variables.

Table 5.4: The correlation of the transformation factors of the agro-food enterprises

Variables	M	SD	(1)	(2)	(3)	(4)	(5)
Transformation (1)	4,404	1,336	1,000				
Business ownership (2)	5,069	1,158	0,497***	1,000			
Management control (3)	4,954	1,233	0,376***	0,506***	1,000		
Markets Access (4)	4,878	1,259	0,339***	0,482***	0,301***	1,000	
Representative (5)	4,487	1,292	0,474***	0,378***	0,382***	0,354***	1,000

Notes: N = 517; M= Means; SD = Standard deviation; *** P < 0.000; Source: survey, 2020

The results show that transformation has a positive and medium-strong correlation with business ownership, $r(517) = 0.497$, $p = 0.000$; management control, $r(517) = 0.376$, $p = 0.000$; market access, $r(517) = 0.339$, $p = 0.000$, and representative, $r(517) = 0.474$, $p = 0.000$. These results suggest that transformational factors have a moderately incremental effect on the transformation of women's agro-food enterprises. These results are supported by those reported by Kudyba, Fjermestad and Davenport (2020) and El Bilali (2020), which show that collective intelligence (management control and representativity) is positively correlated to business transformations. Furthermore, the results of this study show that the management

control factor of women's agro-food enterprises is positively and strongly correlated to the business owners of such enterprises, at $r(515) = 0.506$, $p = 0.000$.

5.3.3 The effects of the transformation factors on women's agro-food enterprises

The estimated coefficients are positive and significant, at a p-value of less than 5% (see Table 5.5 below). Thus, the results show that we should reject the hypothesis that business ownership does not determine the transformation of the agro-food enterprises of smallholder women, in all three steps.

Table 5.5: The stepwise multiple regression model of agro-food enterprises

Models	B	Beta	Sig.	Lower Bound	Upper Bound	Partial
Step 1						
(Constant)	1,498		0,000	1,047	1,948	
Business ownership	0,573	0,497	0,000	0,487	0,660	0,497
Step 2						
(Constant)	0,686		0,004	0,226	1,146	
Business ownership	0,428	0,371	0,000	0,340	0,515	0,390
Representative	0,345	0,334	0,000	0,267	0,424	0,356
Step 3						
(Constant)	0,523		0,034	0,039	1,008	
Business ownership	0,385	0,334	0,000	0,289	0,482	0,328
Representative	0,325	0,315	0,000	0,245	0,406	0,331
Management control	0,094	0,087	0,041	0,004	0,185	0,090

Source: survey, 2020

The beta coefficients also indicated that business ownership significantly determines the transformation of the agro-food enterprises under study, at all regression analysis steps. This finding implies that the ownership of the business is critical for transforming

the agro-food enterprises of smallholder women in the Free State province. In phase one, the analysis shows that a one percent increase in business ownership alone will result in a 0.497 percent increase in the transformation of these enterprises. In the sequent inclusion of representativity in the regression model, the results show that a one percent increase in business ownership will result in the 0.371 percentage when representativity is held constant. In the last step, the results show that a one percent increase in business ownership results in a 0.334 percentage in agro-food enterprise, when representativity and management control are held constant. Furthermore, Isakson (2014) and Rossi, Vrontis and Thrassou (2014) support the assertion that business ownership is essential in transforming farming enterprises.

5.4 CONCLUSION AND RECOMMENDATIONS

This study investigated the socio-economic characteristics of smallholder women who own agro-food enterprises and assessed their sales and business experiences. As a result, their business experience status was established. The mean age of these entrepreneurs was 45.9 years, indicating that they are still economically active and productive. The participation in this entrepreneurship is skewed towards smallholder farming and grains production. Furthermore, a higher number of these entrepreneurs have attained low levels of education and are drawn from various educational backgrounds.

The study has shown that the transformation in this sphere of entrepreneurship is positively associated with business ownership, representativity, management control, and market access. Given these results, it can be concluded that the transformation of these enterprises depends on these relations. Furthermore, the stepwise regression analysis indicated that business owners have a superior influence on the transformation of these enterprises; with representativity following this influence. Thus, it is concluded that these variables are the most crucial in transforming these enterprises.

This study recommends that financial support should be provided to enable women in agro-food enterprises, and that this should be given higher priority as a cornerstone of the transformation of the empowerment of women in the agro-food sector of the Free

State Province. Furthermore, the empowerment through gender policy should consider the sectoral skewness towards smallholder farming, low education, and educational background when designing the transformation initiatives and programmes.

REFERENCES:

- Chakona, G., and Shackleton, C., 2017. Minimum dietary diversity scores for women indicate micronutrient adequacy and food insecurity status in South African towns. *Nutrients*, 9(8), p.812.
- Chinomona, E., and 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.
- El Bilali, H., 2020. Transition heuristic frameworks in research on agro-food sustainability transitions. *Environment, development, and sustainability*, 22(3), pp.1693-1728.
- Gano-An, J.C., and Gempes, G.P., 2020. The Success and Failures of Sari-Sari Stores: Exploring the Minds of Women Micro-Entrepreneurs. *HOLISTICA– Journal of Business and Public Administration*, 11(2), pp.25-51.
- Isakson, S.R., 2014. Food and finance: The financial transformation of agro-food supply chains. *Journal of Peasant Studies*, 41(5), pp.749-775.
- Khan, S., Nasir, N., Jamshed, S., Omer, M., and Nasir, S., 2020. Exploring the Orientation factors of Women Entrepreneurs: A Life Course Approach. *International Journal of Psychosocial Rehabilitation*, 24(04).2376-2397.
- Kudyba, S., Fjermestad, J., and Davenport, T., 2020. A research model for identifying factors that drive effective decision-making and the future of work. *Journal of Intellectual Capital*. 21(6), pp. 835-851.
- Nambiar, Y., Sutherland, M., and Scheepers, C.B., 2020. The stakeholder ecosystem of women entrepreneurs in South African townships. *Development Southern Africa*, 37(1), pp.70-86.

- Nxopo, Z. 2014, "The role of government in empowering female entrepreneurs in the Western Cape, South Africa", Master of Technology: Business Administration (Entrepreneurship), Cape Peninsula University of technology. Cape Town.
- Rossi, M., Vrontis, D., and Thrassou, A., 2014. Agro business in a changing competitive environment–Campania firms' strategic, marketing, and financial choices. *World Review of Entrepreneurship, Management and Sustainable Development* 5, 10(2-3), pp.312-333.
- Rudhumbu, N., du Plessis, E.E., and Maphosa, C., 2020. Challenges and opportunities for women entrepreneurs in Botswana: revisiting the role of entrepreneurship education. *Journal of International Education in Business*.13(2), pp.12-14.
- 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.

CHAPTER 6:
ANALYSIS OF THE DOMAINS OF EMPOWERMENT FOR SMALLHOLDER
WOMEN AGRO-FOOD ENTERPRISES: EVIDENCE FROM FREE STATE
PROVINCE OF THE REPUBLIC OF SOUTH AFRICA.

ABSTRACT

The domain of women empowerment has been used worldwide to assess women's empowerment in the agricultural sector. Thus, this study aimed to analyse this domain to empower women's agro-food enterprises in the Free State Province. The study randomly selected 517 women in agro-food enterprises from across five district municipalities. The socio-economic data were collected through using a closed-ended questionnaire and holding focus sessions as utilized in the concurrent explanatory mixed research design. The study ascertained that all the domains for empowerment positively influence the empowerment of these enterprises, except the leadership in the community ($B = -0.516$, $p = 0.001$). Therefore, the study recommends that gender empowerment policies be transformed to enforce gender parity in all facets of the leadership of the community to support women's views.

Keywords: women, empowerment, domain, parity, gender

6.1 INTRODUCTION

Women's empowerment and gender equality are intrinsically important. Women contribute to household food security and improved nutrition for women and children (Johnson et al., 2016; Quisumbing et al., 2020). This type of empowerment enables women to make life-changing choices, despite the diverse challenges of society (Shradha and Paliwal, 2019; van der Waldt et al., 2019). However, patriarchal ideology and socio-cultural practices have been blamed for the disempowerment of women regarding land ownership in several African states (Sraboni et al., 2014; UN 2017; Nikiema and Kponou, 2020). Sraboni et al. (2014) found that tools for empowerment

have been examined in several studies and are significant and crucial for empowering women in agriculture.

On the other hand, a new interest has arisen in South Asia regarding agriculture as a driving force for inclusive growth, especially women's empowerment, is an indicator for measuring women's empowerment to examine its relationship with various food security outcomes. This renewed interest has highlighted the need to develop indicators for monitoring the impact of interventions on the empowerment of women (Sraboni et al. 2014; Malapit and Quisumbing, 2015; Malapit et al., 2015). Nikiema and Kponou (2020) reported that women's empowerment and child nutrition were significantly and positively influenced by income control and control over overproduction.

It has been reported that the support to smallholders has been fully embedded in the evolution of agriculture, worldwide, over the last 150 years (Losch, 2020). However, it is not clear from the literature that the domain of empowerment of the smallholder women in agro-food enterprises exists, and if it exists, whether policymakers have adequately pursued the empowerment of women in this sub-sector. Thus, this study aims to analyse the empowerment of the agro-food enterprises of smallholder women through using the case of the Free State province.

6.2 MATERIALS AND METHODS

6.2.1 Study area and sampling method

The study was carried out in all five district municipalities of the Free State province in South Africa (see Figure 6.1). The province is situated between the latitudes 26.6°S and 30.7°S of the equator, and between the longitudes 24.3°E and 29.8°E of the Greenwich meridian (Moeletsi and Walker, 2012; Barkhuizen and Weyl, 2020; Hadisu Bello et al., 2020; Abubakar et al., 2020).



Figure 6.1: District municipalities of the Free State province

The province has a total land surface area of approximately 129 825 km², accounting for an estimated 10.6% of the country's 96 land areas (Nyam et al. 2020). It produces up to 33% of South Africa's maize and 45 % of its wheat, with crop production and mixed livestock production being the main agricultural activities of the Free State province (Mapfumo et al., 2020). The study employed primary data collected from a sample of 517 smallholder agro-food enterprises, obtained using a simple random sampling technique. The research used both quantitative and qualitative research designs. The data collected in the qualitative approach were collected during discussions in focus sessions, and the results were applied in the study to explain the quantitative outcomes of the research. The collected data provided the socio-economic and empirical information concerning the smallholder agro-food enterprises.

6.2.2 Model specification

The study employed stepwise binary logistic regression models in its empirical analysis, where in the binary logistic regression, the dependent variable represents the odds of an event occurring, and is applied when the data of the dependent variable are in binary form (Jamil et al. 2018). Thus, the empowerment variable, which is the dependent variable in this study, had binary outcomes. The outcome of the event was empowerment, and is coded as "1", while not being empowered was coded as "0". Model 1 only measured the empowerment of smallholder women conducting agro-food enterprises using one variable, called the 'decision about agricultural production'.

$$\text{Ln (odds)} = C_1 + B_1 X_1 + E_1 \quad (1)$$

where C represents the constant, b represents coefficients of X_1 , and E represents the error terms. The second model's estimation in Step 2 included the second predictor variable in the first model, and this produced the following Equation:

$$\text{Ln (odds)} = C_2 + B_1 X_1 + B_2 X_2 + E_2. \quad (2)$$

where X_2 represents the variable access to decision-making power.

Similarly, the third model in Step 3 added several domains of the empowerment factor, resulting in five domains of the empowerment of the smallholder women agro-food enterprises being assessed, by using the formula specified below:

$$\text{Ln (odds)} = C_3 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + E_3 \dots \quad (3)$$

where X_3 , X_4 , and X_5 represent leadership in the community, time allocation, and control over the use of income, respectively. This model represents the complete model for the empowerment of these stakeholders.

The odds were estimated by using the following formula:

$$\text{Odds} = \frac{\text{Prob (empowered)}}{1 - \text{Prob (empowered)}} \quad (4)$$

where Prob (event) = empowerment occurs, while 1- Prob (empowered) = the probability of empowerment not occurring.

6.2.3 Model summary and Goodness of fit

The model summary and goodness of fit information are presented in Table 6.1 below. These results revealed that the decision about agriculture variables accounts for only 2.3% of Model 1 and is considered significant $\chi^2(3, N=517) = 11.199, p < 0.011$). This result implies that this model is not a good fit. In contrast, the two models (2 & 3) are considered non-significant: $\chi^2(7, N=517) = 12.560, p < 0.084$) and $\chi^2 X2(8, N=517) = 12.637, p < 0.125$), respectively. These results show that these models are good and well fitted. However, all models explain less than 30% of the total variances in the models, which constitutes a weakness in the models.

Table 6.1: Goodness of fit for the model of the empowerment of smallholder agro-food enterprises

Steps	Model summary			Hosmer and Lemeshow Test		
	-2 Log likelihood	Cox & Snell R ²	Nagelkerke R ²	χ^2	df	Sig
1	266.561a	0,01	0,023	11.199	3	0.011
2	262.225a	0,018	0,044	12.560	7	0.084
3	246.561a	0,047	0,115	12.637	8	0.125

Notes: R² = R- Squared, df = Degree of freedom, χ^2 = Chi-squared, Sig = probability values

On the other hand, an omnibus test of model coefficients of the empowerment of smallholders conducting agro-food enterprises is presented in Table 6.2 below. In all the models, the Chi-squared is significant, implying that all predictor combinations in the models significantly improve the prediction accuracy of the model turnover [$\chi^2(1,$

N= 517) = 4.969, p = 0.026; X² (2, N= 517) = 9.306, p = 0.010 and χ^2 (5, N= 517) = 24.970, p = 0.000)].

Table 6.2: Omnibus test of model coefficients for the empowerment of smallholder agro-food enterprises

Steps	Categories	Chi-square	df	Sig.
1	Step	4,969	1	0,026
	Block	4,969	1	0,026
	Model	4,969	1	0,026
2	Step	4,336	1	0,037
	Block	4,336	1	0,037
	Model	9,306	2	0,010
3	Step	15,664	3	0,001
	Block	15,664	3	0,001
	Model	24,970	5	0,000

Notes: df = Degree of freedom, sig = significant values, **Source:** survey, 2019.

6.3 RESULTS AND DISCUSSION

6.3.1 Socio-economic characteristics of the agro-food enterprises of smallholder women

Table 6.3 below shows the results of the descriptive analysis of the socio-economic characteristics of smallholder agro-food enterprises. The results revealed that the owners of smallholder agro-food enterprises range in age from 47 to 34 years. The entrepreneurs in Lejweleputswa Municipality have, on average, the oldest entrepreneurs (M = 47.012; SD = 11.587), while Xhariep district municipality has the youngest of the entrepreneurs sub-sector (M = 33.500; SD = 9.000). Furthermore, the spread of the entrepreneurs' incomes across the district municipalities shows that Xhariep has a slightly lower income (M = 4.000; SD = 1.000) than that in the Lejweleputswa district municipality (M = 4.426; SD = 0.744), in which the business and sales experience is twice as high. These results imply that youthfulness might be linked with innovation and technology, while the older generation of entrepreneurs in Lejweleputswa might be relying more on traditional knowledge and practices.

Table 6.3: Descriptive analysis of the socio-economic characteristics of smallholder agro-food enterprises

District Municipalities	Description of variables	N	Descriptive Statistics	
			Mean	Std. Deviation
Lejweleputswa	Age in years	83	47,012	11,587
	Business experience	83	13,422	9,267
	Sales experience	83	13,410	9,506
	Income	47	4,426	0,744
Mangaung Metro	Age in years	208	44,856	12,330
	Business experience	208	12,803	10,555
	Sales experience	208	12,389	10,622
	Income	115	4,261	0,918
Thabo Mofutsanyana	Age in years	222	46,842	11,698
	Business experience	222	12,518	9,801
	Sales experience	222	12,505	9,799
	Income	121	3,992	0,871
Xhariep	Age in years	4	33,500	9,000
	Business experience	4	6,750	5,909
	Sales experience	4	5,750	4,500
	Income	3	4,000	1,000

Notes: SD = standard deviation, N = counts. **Source:** survey, 2019.

6.3.2 Relationship between domains of the smallholder women agro-food enterprises.

Table 6.4 below shows the Pearson correlations for the domain of empowerment among smallholder women's agro-food enterprises. The empowerment is significantly positive regarding decision-making on agricultural production [$r(517) = 0.101$, $p = 0.05$], access to decision-making power [$r(515) = 0.113$, $p = 0.05$], and time allocation [$r(517) = 0.139$, $p = 0.05$].

However, the correlations for these domains were small. Nevertheless, it is shown that decision-making regarding the agricultural production of these enterprises is significantly positive, moderately correlated to time allocation [$r(517) = 0.327$, $p =$

0.01], and highly correlated to control of the use of income. Interestingly, the results also show that leadership in the community is positively and significantly higher correlated with time allocation [$r(517) = 0.421, p = 0.01$]. These results imply that community leadership could lead to a 42.1% increase in the time allocation regarding the empowerment of the smallholder women's agro-food enterprises.

Table 6.4: Pearson correlation for the domain of empowerment of smallholder women agro-food enterprises

Variables	1	2	3	4	5	6
Decision about agricultural production (1)	1					
Access to decision making power (2)	.250**	1				
Control of use of income	.469**	.244**	1			
Leadership in the community (3)	.278**	.304**	.131**	1		
Time allocation (4)	.327**	.291**	.421**	.345**	1	
Empowerment (5)	.101*	.113*	-0,086	.139**	0,064	1

Notes: ** = $P = 0.01$, * = $P = 0.05$ (2-tailed), **Source:** survey, 2019.

6.3.3 Domain of the smallholder women agro-food enterprises

The results presented in Table 6.5 below show the output of the three models (stepwise binary regression models). The results for Step 1 indicated that agricultural production is the significant predictor of empowerment of the domain for smallholder women's agro-food enterprises in Free State province. The odds ratio for agricultural production indicated that, if agricultural production increases by one unit, the domain for the empowerment of these enterprises will probably increase by 35.7%. Tesfay and Abidoye (2020) underscore the significance of the women's division of women empowerment in agricultural production because women significantly influence the crops grown and household diet. The latter is crucial for the eradication of food insecurity and poverty in these households.

Table 6.5: Predictor coefficients and odds ratios for the domain of smallholder women agro-food enterprises

Variables	β	SE (β)	p-values	Exp (β)	95% CI	
					Lower	Upper
Step 1						
Constant	0.983	0.677	0.147	2.673	1,043	1,766
Decision about agricultural production	0.306	0.134	0.023	1.357		
Step 2						
Constant	0.009	0.827	0.992	1.009		
Decision about agricultural production	0.250	0.139	.072	1.284	.978	1.687
Access to decision making power	.270	.127	.033	1.310	1.022	1.680
Step 3						
Constant	.986	1.057	.351	2.680		
Decision about agricultural production	.332	.148	.024	1.394	1.044	1.863
Access to decision making power	.247	.132	.062	1.280	.987	1.659
Leadership in the community	-.516	.161	.001	.597	.435	.819
Time allocation	.217	.129	.093	1.242	.965	1.600
Empowerment	.097	.151	.523	1.101	.819	1.481

Notes: β = coefficient, SE = Standard Error, Exp (β) = Odds ratio, sig = p-values, CI = Confidence intervals.

Step 2 suggests that when access to decision-making power is added in the model, the influence of agricultural production is reduced to 28.4%. In comparison, it is shown that access to decision-making power increases the empowerment of women conducting agro-food enterprises by 31.0%, when agricultural production is held constant. Colverson et al. (2020) and Thankian (2020) have reported that decision-making is critical for women's empowerment in general, as they would thereby be seized of taking decisions for household livelihood development and empowerment.

Given the complete model, as presented in Step 3 of the results in Table 6.5 above, it is clear that leadership in the community could significantly reduce the development of the empowerment of women in agro-food enterprises by 40.3%. This result confirms

that smallholder women's agro-food enterprises are also adversely affected by women businesses' unsupportive decision local leadership, primarily men (Heera et al. 2020). In South Africa, women were not given leadership positions during the apartheid era, and notwithstanding the fall of apartheid, the leadership of women in the democratic era is still inadequate (Hocoy, 2020). The negative impact of a community's leadership on the empowerment of women could emanate from the historical political environment, where women were subjected to marginalization.

6.4 CONCLUSION AND RECOMMENDATIONS

This study examined the domains of empowerment for smallholder women conducting agro-food enterprises. The socio-economic characteristics of these enterprises were such that different district municipalities had different age groupings of these entrepreneurs. Their income levels per month were below 4500 rands, implying that they could earn above the minimum wage. However, considering the costs of doing business, their net income is lower than the minimum wage.

Furthermore, this study investigated the relationships between factors that could contribute to the empowerment of these enterprises. It was revealed that an increase in agricultural production decision-making could result in a 10.1% increase in empowerment. On the other hand, an increase in access to decision-making power and time allocation for the smallholder women's agro-food development could lead to increases of 11.3% and 13.9% in empowerment, respectively. The results indicated that all the domains of the empowerment of these enterprises were critical to their empowerment, except the community's leadership. Therefore, the study recommends that gender empowerment policies be transformed to enforce gender parity in all facets of the community's leadership to support women's views.

REFERENCES:

Abubakar, H.B., Newete, S.W., and Scholes, M.C., 2020. Drought characterization and trend detection using the reconnaissance drought index for Setsoto Municipality of the Free State Province of South Africa and the impact on maize yield. *Water*, 12(11), p.2993.

- Barkhuizen, L.M., and Weyl, O.L.F., 2020. Evaluating the suitability of fyke nets for small-scale fisheries in the Free State Province of South Africa. *Water SA*, 46(1), pp.153-157.
- Colverson, K.E., Coble-Harris, L., Galie, A., Moore, E.V., Munoz, O., McKune, S.L., Singh, N., and Mo, R., 2020. Evolution of a gendered tool: WEAI, WELI, and livestock research. *Global Food Security*, 26, p.100375.
- Hadisu Bello, A., Scholes, M., and Newete, S.W., 2020. Impacts of Agroclimatic Variability on Maize production in the Setsoto municipality in the Free State Province, South Africa. *Climate*, 8(12), p.147.
- Heera, K.C., Shrestha, M., Pokharel, N., Niraula, S.R., Pyakurel, P., and Parajuli, S.B., 2020. Women empowerment for abortion and family planning decision making among marginalized women in Nepal: a mixed-method study.
- Hocoy, D., 2020. of Apartheid in South Africa. *Merging Past, Present, and Future in Cross-cultural Psychology*, p.308.
- Jamil S.A., Abdullah A, Long S., Jupri M , Mamat M., 2018. A Stepwise Logistic Regression Analysis: An application toward Poultry Farm Data in Johor. *International Journal of Engineering & Technology* 7(3.28), pp. 68-71.
- Losch, B., 2020. International experiences of support policies for smallholders: A review and an exploration of underlying rationale and narratives. Thematic report for the Project Employment-intensive rural land reform in South Africa.
- Mapfumo, P., Chagwiza, C., and Antwi, M., 2020. Impact of rainfall variability on maize yield in the KwaZulu-Natal, North-West, and Free State provinces of South Africa (1987–2017). *Journal of Agribusiness and Rural Development*, 58(4), pp.359-367.
- Moeletsi, M.E., and Walker, S., 2012. Assessment of agricultural drought using a simple water balance model in the Free State Province of South Africa. *Theoretical and applied climatology*, 108(3-4), pp.425-450.
- Nikiema, P.R., and Kponou, M.K.C., 2020. Women Empowerment in Agriculture and Children Nutritional Outcomes in Rural Burkina Faso. African Economic Research Consortium, Nairobi, Kenya.

- Nyam, Y.S., OJO, T., Belle, A.J., Ogundeji, A., and Adetoro, A., 2020. Analysis of profit efficiency among smallholder sheep farmers of N8 development corridor Free State, South Africa.
- Sraboni, E., Malapit, H.J., Quisumbing, A.R., and Ahmed, A.U., 2014. Women's empowerment in agriculture: What role for food security in Bangladesh? *World Development*, 61, pp.11-52.
- Tesfay, G.B., and Abidoye, B.O., 2020. Women Empowerment in Agriculture and Child Nutrition: Evidence from Ethiopia.
- Thankian, K., 2020. Factors Affecting Women's Autonomy in Household Decision-Making among Married Women in Zambia. *Journal of Scientific Research and Reports*, pp.109-123.
- United Nations, 2017. The Sustainable Development Goals Report, 2017. United Nations, New York, NY.

CHAPTER 7:
**THE DEVELOPMENT OF A COMPETITIVE STRATEGY FOR THE
EMPOWERMENT OF SMALLHOLDER WOMEN AGRO-FOOD ENTERPRISES IN
THE FREE STATE PROVINCE OF THE REPUBLIC OF SOUTH AFRICA.**

ABSTRACT

The purpose of this study was to develop a framework for a competitive strategy that would empower the smallholder women conducting agro-food enterprises in the Free State province. A concurrent mixed-method design was used with a survey to collect the relevant quantitative data, while focused individual discussion sessions were used to collect qualitative data. The sample size for the research was calculated to be 517 study participants. The findings show a positive relationship between production and empowerment success ($\beta = 0.133$, $p < 0.000$). Similarly, all subsequent hypotheses were also supported. These results imply that there is a positive and significant relationship between transformations and empowerment ($\beta = 0.151$, $p < 0.000$), capacity building and empowerment ($\beta = 0.313$, $p < 0.000$), and entrepreneurship and empowerment ($\beta = 0.552$, $p < 0.007$) and savings and competitiveness ($\beta = 0.463$, $p < 0.000$). In conclusion, the current model should allay the concerns of researchers and practitioners regarding the lack of competitiveness of smallholder women's agro-food enterprises, despite the government's attempts to support them, which have limited success. It recommends that savings and empowerment should be used to ensure the competitiveness of these enterprises.

Keywords: Competitiveness; agro-food, empowerment, strategy, and women.

7.1 INTRODUCTION

Agro-food enterprises have a central role to play in building the South African economy (Isaacs et al., 2021; Borsellino et al., 2020), and provide opportunities to reduce inequalities and to increase job creation and income revenue. Various agricultural policies of South Africa advocate using the smallholder agro-food system to achieve macro-economic goals (Drimie, 2016; SAnews, 2018; Gina 2019; Ministry for Agriculture and Rural Development, 2021). However, these policies place less

emphasis on the empowerment and the competitiveness of women's agro-food enterprises.

Gina (2019) highlighted the influence that women should have on the decision-making and strategic directions in the South African economy. However, it has been noted that economic transformation for enabling women to play such a role has been sluggish. The Ministry of Agriculture and Land Affairs (2021) has set out three primary goals for the policy reform, which seek to build an efficient and internationally competitive agricultural sector by supporting the agricultural sector, particularly smallholder farming enterprises. These sentiments are also captured in the National Development Plan (NDP) of 2012, which is an overarching South African government development agenda (Sikwela, 2013; Purchase, 2015; Drimie, 2016). This author reported that the New Growth Path (NGP) evolved in the South African policy framework to implement the macro- and micro-economic interventions.

Smallholder farming, as a strategic growth point for South Africa, is linked with entrepreneurship through commercialization and *agro-processing*. The latter is perceived to enhance *the competitive advantage* of farming *enterprises* (World Bank, 2007; Thindisa, 2014). Within the area of smallholder farming development, the transformational goals include empowering black smallholder farmers and women-owned smallholder enterprises as a strategy for agro-food enterprise development (Nwafor, 2015; Murugani, 2016; Borsellino et al., 2020).

The empowerment of women is critical for South African economic transformation and is aimed at endowing women with the necessary ability to undertake tasks individually, or in groups, to acquire access to and control over societal resources (Allahdadi, 2011; Chitja, 2016). The challenges of women's economic empowerment have been highlighted as including socio-cultural, educational, access to finance, business support, and means of production factors (Mmbengwa, 2009; Kruger, 2017). On the other hand, the smallholder farming sector is known to be less competitive than the commercial agricultural sector is. Some of the challenges that cause the smallholders to be less competitive in the agro-food markets range from lack of dedicated value chains, low volumes of good-quality products being supplied, and lack of funding

(Baloyi, 2011; van Schalkwyk et al., 2012). The main goal of this study was to develop a framework for a competitive strategy that aims at empowering the smallholder women conducting agro-food enterprises in the Free State province.

7.2 LITERATURE REVIEW

7.2.1 Policy towards the competitive strategy

The neoclassical theoreticians neglected the construct of competitiveness. However, it was postulated by Keynesian theories as a theory that is rooted in the trade theory of competitive advantage (Fagerberg, 1996; Siudek and Zawajska, 2014; Abramov and Sokolov, 2017; Popkova et al., 2018; Falciola et al., 2020). According to Siudek and Zawajska (2014), this construct is one of the most used terms in economics, although it does not have a generally accepted definition. Studies report that this construct is a function of the personal traits of the entrepreneur, educational accomplishment, opinions of leaders and researchers, consumerism, entrepreneurial experience, business networks, technology programmes, agencies, and government (Aiginger et al., 2013; Moseiko et al., 2015; Wortmann-Kolundzija, 2019; and Chygryn et al., 2021).

7.2.2 Conceptual framework of hypotheses

A 'strategy' has been defined as a response between an organization's internal resources, functions and opportunities, and the risks in the external environment (Grant, 1991; Dayan et al., 2017; Salunke et al., 2019). Strategic development requires competitive intelligence, phenomenological novelty, and depth of research (Cavallo et al., 2020). Organizations, on the other hand, require systems and processes to collect and analyse large amounts of reliable, relevant and timely information about competitors and markets (Trim and Lee, 2008; Cavallo et al., 2020). To develop an effective strategy, a high level of resource-based theory of competitive advantage needs to be applied (Subiyantoro et al., 2020).

Any strategy for empowering women needs to consider the Women's Empowerment in Agriculture Index (WEAI). This survey-based indicator aims to measure women's empowerment, behavioural ability, and inclusion in the agricultural sector (Malapit et

al., 2015). The WEAI offers many guidelines to consider for measuring women's empowerment. However, the assessment of women's ability to develop competitive strategies has received little attention in the literature. This gap encouraged this study to propose a conceptual framework and policy recommendations (Figure 7.1 below).

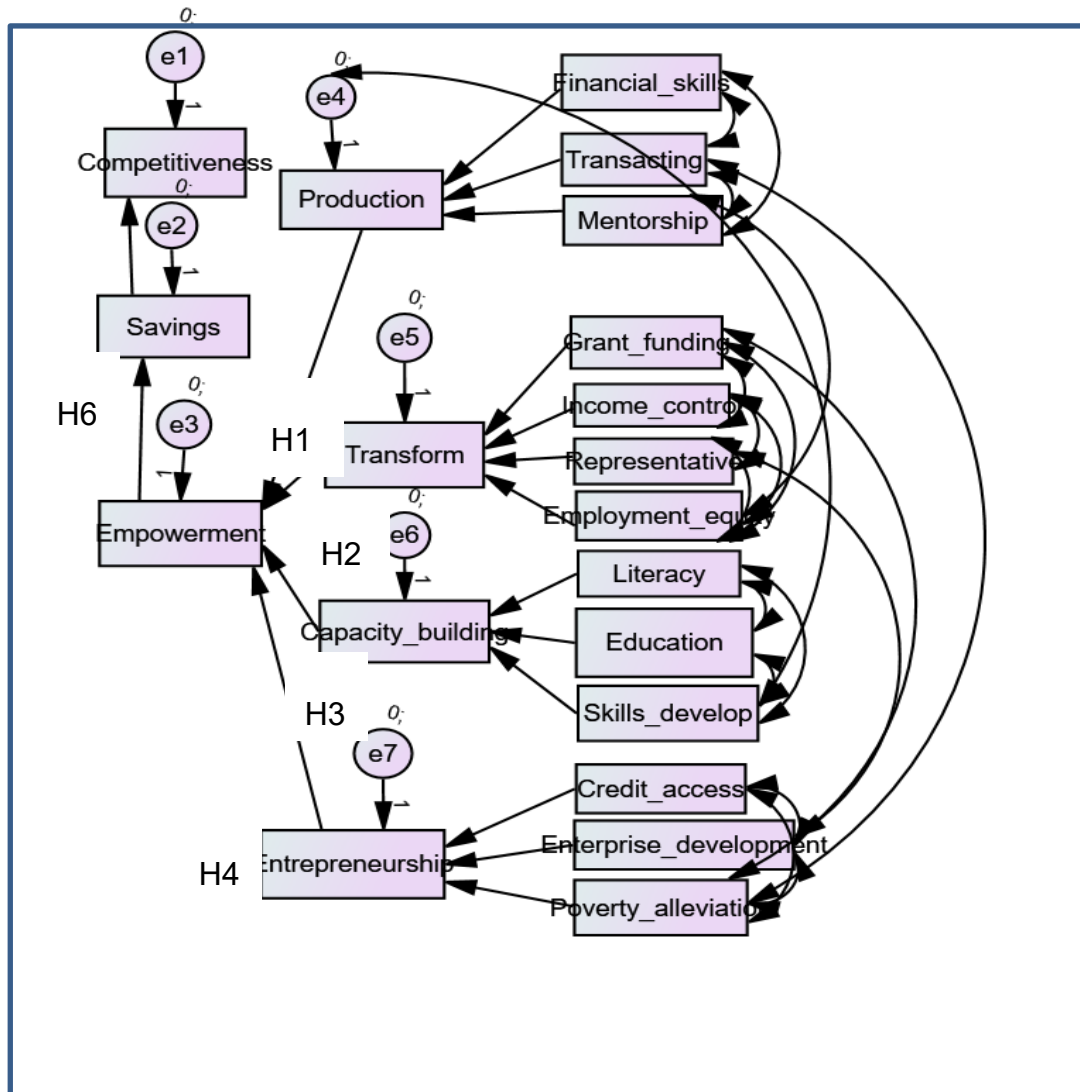


Figure 7.1: Framework for the conceptual empowerment of smallholder women's agro-food enterprises

[adapted from Agri-BEE Charter (DAFF, 2010) and A-WEAI]

7.2.2.1 Empowerment of smallholder women's agro-food enterprises

Empowerment is a multifaceted and multidimensional concept that is centred on the transformation of power relations. Some authors, such as Luttrell et al. (2009), have described it as an emancipatory process where the disempowered and disadvantaged are enabled and empowered to exercise their rights in decision-making and to gain access to resources and skills, thereby allowing them to participate actively in those activities essential to enhance their livelihoods positively. San Pedro (2007) describes a common feature that runs through the multiplicity of the definitions of empowerment: its association with changes in power structures and relations targeted to achieve greater equality (San Pedro, 2007). This study identified three independent variables according to the Agri-BEE sectorial plan (DAFF, 2010).

The successes and failures, in varying degrees, of the models for the empowerment of women have been tested in various countries (D'Annolfo et al., 2021; Nanavaty, 2021; Baral et al., 2021; Fan et al., 2021). The United Nations (U.N.) women is a global entity that strives to achieve gender equality and women's empowerment (Tanumihardjo et al., 2020; Norese et al., 2021). In India, an organization such as the Self-Employed Women's Association (SEWA), has empowered women. In South Africa, there are initiatives that operate for achieving the empowerment of women. These include African Women in Agriculture (AWIA), Government Departments (Agriculture and Rural Development & Women) and partners, such as South African (SAWIF), the Association of China-Africa Smallholder Agriculture Women Desk (ACASAWD) and the African Farmers' Association of South Africa Women Desk (AFASAWD).

Hypothesis 1: There is a positive relationship between production and empowerment success in the smallholder women's agro-food enterprises in the Free State province of the Republic of South Africa.

7.2.2.2 Transformation for smallholder women agro-food enterprises

The term 'transformation' has been applied in the South African economy concerning activities to redress the negative impacts of disempowerment inflicted against black populations under the apartheid regime. Transformation has further been defined as comprising corrective measures aimed to the right the wrongs of the past racial oppression through achieving equality in the economic domain (De Vos, 2010). Friedman (2017) has described economic transformation as being the change required to speed up the access to the economy by black people through the promotion of economic inclusion to overcome the disempowering practices that originated under apartheid (Friedman, 2017). The following hypothesis was formulated:

Hypothesis 2: There is a positive relationship between transformation factors and women's empowerment in agro-food enterprises.

7.2.2.3 Capacity building of the smallholder women conducting agro-food enterprises

The investigation of capacity building in the agricultural sector has been undertaken by many researchers (World Bank, 2007; CDS, 2007; Viennabe and Vermeulen, 2006; Murray, 1997; Mmbengwa, 2009). African countries have made similar demands and expressed the need to invest in human capital in their development programmes (World Bank, 2007). A subsequent reaction from African heads of states in 2002 was a promise to allocate 10% of their national budgets to agriculture within five years (Clover, 2003). This was intended to underscore the commitment of political leaders to stimulate the growth and development of agriculture. In this study, employment equity and skills development were identified as indicators of capacity building. The study has formulated the following hypothesis:

Hypothesis 3: There is a positive relationship between capacity building factors and women's empowerment in agro-food enterprises.

7.2.2.4 Entrepreneurship for smallholder women agro-food enterprises

Entrepreneurship is the creation and growth of new businesses to make a profit (Nieman et al., 2004). Entrepreneurship is also seen when existing companies move to new business areas where they can complement their services or take advantage of their unique opportunities (Groenewald, 2008). In addition, Dollinger (1995) defines entrepreneurship as the creation of an innovative economic organization in high-risk and uncertain situations. It is also referred to as operating to create opportunities and to pursue them, regardless of resources (Timmons and Spinelli, 1990). This study has formulated the following hypothesis to determine the effect of the entrepreneurship:

Hypothesis 4: There is a positive relationship between entrepreneurship factors and women's empowerment in agro-food enterprises.

7.2.2.5 Income growth (Savings) of women's smallholder agro-food enterprises

The growth of an enterprise increases the capacity of that enterprise to make an impact in its industry. Safari et al. (2020) showed that psychological empowerment directly affects competitive advantage. Furthermore, Susanto et al. (2020) found that business performance, achieved through good corporate governance, is necessary for increasing competitive advantage, resulting in increased company value and prosperity for all employees and the community. Various researchers have confirmed the impact of income growth factors that significantly impact on the competitive advantages of business entities (Sarwenda, 2020; Ferreira and Coelho, 2020). However, the mediating effects of business performance on the competitive advantage of enterprises have not been fully explained. This study seeks to explore such a relationship by posing the following hypothesis:

Hypothesis 5: There are positive mediating effects between empowerment and savings and the competitive advantage of smallholder women's agro-food business enterprises in the Free State of the Republic of South Africa.

Table 7.1: Summary of the presented hypotheses

Items	Hypothesis
H1	There is a positive relationship between production and empowerment success in the smallholder women's agro-food enterprises in the Free State province of the Republic of South Africa.
H2	There is a positive relationship between transformation factors and women's empowerment of agro-food enterprise.
H3	There is a positive relationship between capacity building factors and women's empowerment in agro-food enterprises.
H4	There is a positive relationship between entrepreneurship factors and women's empowerment in agro-food enterprises.
H5	There are positive mediating effects between empowerment and savings and competitive advantage of smallholder women's agro-food business enterprises in the Free State of the Republic of South Africa.

7.3 METHODOLOGY

A concurrent mixed-method design was used with the survey to collect the quantitative data, while focused individual discussion sessions were used to collect qualitative data (Creswell and Tashakkori, 2007; Njie-Carr, 2014; Levanon et al., 2021). This method was essential to capture the participants' unique contributions in order to triangulate the findings in the socio-cultural context. Data triangulation increases the validity and complements the findings (Creswell and Tashakkori, 2007; Bentahar and Cameron, 2015; Almeida, 2018). Through triangulation, the quantitative data were used as the primary research findings, and qualitative data were used as complementary information to confirm the entrepreneurs' reality.

7.3.1 Sampling

The population sample size was calculated by using the Raosoft sample size calculator, which used a 95% confidence level and a 4.3% margin error with the estimated population of 100 000 smallholder women's agro-food enterprises. Thus, the sample size for this research was calculated at 517 study participants. The study participants were selected in January 2020, and the data collection commenced in

February the same year, taking six months to complete. Before the data collection commenced, the researcher visited all five case study municipalities to introduce himself and create a rapport. Furthermore, the visits were made to establish the sampling frame and seek consent from the stakeholders and participants. After that, the study adopted stratified random sampling techniques.

7.3.2 Instrument

A close-ended questionnaire and a discussion guide were used to collect the quantitative and qualitative data. The questionnaire for the quantitative data collection was structured in sections, while the interview guide was structured in terms of themes. Regarding the quantitative data collection questionnaire, Section A was designed to capture the biographic and demographic information, while Section B set out the empirical questions. The questions in Section B were measured on a seven-point semantic differential rating scale, with 1 rating the lowest and 7 being the highest. The quantitative instrument was subjected to the reliability and validity test of a pilot study that involved 40 smallholder women who conducted agro-food enterprises. The reliability test results scored a Cronbach alpha value of 0.805, which confirms that the items have good internal consistency.

7.3.3 Data analysis and quality checks

The data analysis was performed after the data had been cleansed. All quality checks were conducted through using pretesting and the removal of the string in the data. The qualitative data analysis was used to explain and triangulate the results that had been found when using quantitative analysis (Seers, 2012; Lemon and Hayes, 2020; Kiger and Varpio, 2020). On the other hand, the quantitative data were analysed by using the structural equation model (SEM). Wang and Rhemtulla (2021) have reported that SEM is increasingly popular as a tool for modelling multivariate relations and for testing psychological theories.

Additionally, SEM was the most appropriate methodological option to use to examine the relationships among all the factors that have been used in the model (Irfan et al., 2021). The SEM data analysis was carried out using SPSS (26.0) and AMOS (26.0)

software. This software robustly analyses the relationship between different constructs (Irfan et al., 2021; Lemon and Hayes, 2020).

7.3.3.1 Structural Equation Model specification

The objective to test the determinants of the empowerment of smallholder women's agro-food enterprises was constructed from the Women's Empowerment Index (WEAI) construct, where the production, transformation, capacity building, and entrepreneurship were the independent variables (Onah et al., 2021; Uwineza et al., 2021). These relationships were expressed in the equations below.

$$Y_{1i} = C_{1i} + \beta_{1j}X_{1j} + \beta_{2j}X_{2j} + \beta_{3j}X_{3j} + \beta_{4j}X_{4j} + E_{1i} \quad (1)$$

where: Y_{1i} = empowerment; C_{1i} = constant; β_{1n} = coefficients of variation; X_{1j} = production; X_{2j} = transformation; X_{3j} = capacity building; X_{4j} = Entrepreneurship; E_{1i} = error term.

On the other hand, the determining factors that play an essential role in creating a competitive advantage were identified as being empowerment and business growth. It was conceptualized that income growth plays a mediating function in the creation of competitive advantage. The equation that expressed this conceptualization is presented below:

$$Y_{2i} = C_{2i} + \beta_{2i}X_{2i} + \beta_{2j}X_{2j} + E_{2i} \quad (2)$$

where:

Y_{2i} = Competitive advantage; C_{2i} = constants; β_{2i} = coefficients of variation; X_{2i} = empowerment variables; X_{2j} = saving variables and E_{2i} = error term.

7.3.3.2 Model's goodness of fit

The model's goodness of fit was estimated by using Chi-square, the goodness of fit index (GFI), Tuckers-Lewis's index, comparative fit index (CFI), standardized root mean residual, and root means square error of approximation (RMSEA). These were estimated through using the following equations:

$$\text{Chi-square} = \chi^2/\text{df} \quad (3)$$

$$\text{GFI} = 1 - \frac{F_T}{F_S} \quad (4)$$

$$\text{CFI} = \frac{1 - \max[(\chi^2_T - \text{df}_T), 0]}{\max[(\chi^2_T - \text{df}_T), 0], (\chi^2_T - \text{df}_B), 0]} \quad (5)$$

$$\text{TLI} = \frac{[(\chi^2_B / \text{df}_B - \chi^2_f / \text{df}_f) + 1]}{[(\chi^2_B / \text{df}_B) - 1]} \quad (6)$$

$$\text{NFI} = (\chi^2_B - \chi^2_T) / \chi^2_B \quad (7)$$

where:

F_T = fit of the target model; F_S = fit of the solar model; \hat{F} = fit function; B = baseline of the independent model; and T = target of the model of interest.

The results show that the model is well fitted in all aspects (see Table 7.2 below).

Table 7.2: Model summary showing Goodness of Fit

Goodness of fit	SEMs values	Recommended threshold	Remarks
Chi-square/degree of freedom (CMIN/DF)	3.836	≤ 5.00	Acceptable fit
Normed fit index (NFI)	0.913	≥.90	Acceptable fit
Comparative fit index (CFI)	0.940	≥.90	Acceptable fit
Incremental fit index (IFI)	0.931	≥.90	Good fit
Root mean squared error of approximation (RMSEA)	0.158	≤.10	Good fit
Goodness of fit (GFI)	0.932	≤.90	Good fit

Source: Survey data (2020)

7.3.3.3 Validity and reliability testing

The validity and reliability test results are shown in Table 7.3, 7.4 and 7.5, respectively. Regarding the validity, both convergent and discriminant validity elements were tested. The validity results have shown that only competitiveness and savings did not meet the convergent validity requirement (> 5.00) standard. On the other hand, Table 7.3 showed that there is discriminant validity between production and entrepreneurship ($0.105 > r = -0.080$); transformation and entrepreneurship ($0.218 > r = 0.054$); and capacity building and entrepreneurship ($0.213 > r = 0.001$). The composite reliability for the model is presented in Table 7.4. According to the results, none of the indicators possesses composite reliability. However, the reliability estimates of transformation and capacity building were higher than 0.60 (Cronbach's Alpha = 0.689), implying that a certain part of the model has good composite reliability, but not so for the entire model (Shrestha, 2021; AlKahtani et al., 2021).

Table 7.3: The convergent validity of the smallholder women's agro-food model

Indicators	Std L	(Std L)²	Sum (Std L)²	No. of Indicators	AVE	Square root AVE	Results
Production							
Financial skills	0,136	0,019					
Mentorship	0,061	0,004	0,022	2	0,011	0,105	Convergent
Transacting	0,158	0,025	0,025	1	0,025	0,158	Convergent
Transform							
Grant funding	0,112	0,013					
Income control	0,194	0,038					
Representative	0,356	0,127					
Employment equity	0,113	0,013	0,189	4	0,047	0,218	Convergent
Capacity building							
Literacy	0,31	0,096					
Education	0,125	0,016					
Skills develop	0,156	0,024	0,136	3	0,045	0,213	Convergent
Entrepreneurship							
Credit access	-0,069	0,005					
Enterprise development	0,049	0,002					
Poverty alleviation	0,004	0,000	0,007	3	0,002	0,049	Convergent
Empowerment							
Production	0,159	0,025					
Transform	0,151	0,023					
Entrepreneurship	0,109	0,012					
Capacity building	0,299	0,089	0,149	4	0,037	0,193	Convergent
Savings							
Empowerment	0,453	0,205	0,205	1	0,205	0,453	Convergent
Competitiveness							
Savings	0,436	0,190	0,190	1	0,190	0,436	Not convergent

Table 7.4: Composite reliability of the agro-food women model

Indicators	StdL	(StdL)² (A)	ME	SUM of ME	SUM of Std L	Square of StdL²	Sum C+ME	Compo site Reliabi lity	Results
Production									
Financial skills	0,136	0,019	0,982						
Mentorship	0,061	0,004	0,996	1,978	0,197	0,444	2,422	0,183	None
Transacting	0,158	0,025	0,975	0,975	0,158	0,397	1,373	0,289	None
Transform									
Grant funding	0,112	0,013	0,987						
Income control	0,194	0,038	0,962						
Representative	0,356	0,127	0,873						
Employment equity	0,113	0,013	0,987	3,810	0,775	0,880	4,697	0,188	None
Capacity building									
Literacy	0,31	0,096	0,904						
Education	0,125	0,015	0,984						
Skills development	0,156	0,024	0,976	2,864	0,591	0,769	3,633	0,212	None
Entrepreneurship									
Credit access	-0,069	0,005	0,995						
Enterprise development	0,049	0,003	0,997						
Poverty alleviation	0,004	0,000	0,999	2,993	-0,016	#NUM!	#NUM!	#NUM!	None
Empowerment									
Production	0,159	0,025	0,975						
Transform	0,151	0,023	0,977						
Entrepreneurship	0,109	0,012	0,988						
Capacity building	0,299	0,089	0,911	3,851	0,718	0,847	4,698	0,180	None
Savings									
Empowerment	0,453	0,205	0,795	0,795	0,453	0,673	1,468	0,459	None
Competitiveness									
Savings	0,436	0,190	0,809	0,810	0,436	0,660	1,470	0,449	None

Table 7.5: The Reliability Statistics

<i>Item-Total Statistics</i>				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Transform	4.6692	1.497	.528	.
Capacity building	4.4043	1.784	.528	.

7.4 RESULTS

7.4.1 Descriptive analysis

A summated scale for each construct was computed by calculating the average of the indicators within the construct (Kumar et al., 2021; Adamczyk et al., 2021). All mean scores were above the 1-7 semantic differential rating score average, with regular distributions of < 1.00 , as indicating by standard errors. Table 7.6 shows descriptive statistics of the factors that influence the women's agro-food enterprises, with the highest mean score being for grant funding (mean = 5.259), followed by financial skills (mean = 5.209) and education (mean = 5.203), with the lowest means being recorded for representativity (mean = 4.487) and mentorship (mean = 4.673). According to the respondents, it appears that smallholder women's agro-food enterprises in this province need financial capacitation and training (Mamo et al., 2021; Kajiita and Kang'ethe 2021).

Table 7.6: Descriptive analysis of the factors that influence the smallholder women agro-food enterprises

Factors	Estimate	S.E.	C.R.	P
Financial skills	5,209	,052	100,584	***
Mentorship	4,673	,056	82,844	***
Grant funding	5,259	,050	104,528	***
Income control	5,008	,053	95,273	***
Representative	4,487	,056	79,849	***
Employment equity	4,760	,059	80,726	***
Literacy	5,139	,055	92,698	***
Education	5,203	,058	89,102	***
Skills development	5,164	,055	93,060	***
Credit access	3,876	,081	47,613	***
Enterprise development	5,072	,052	97,034	***
Poverty alleviation	5,191	,056	92,341	***
Transacting	4,903	,052	94,901	***

7.4.2 Hypotheses testing

Table 7.7 and Figure 7.2 present and illustrate the results of the standard regression weights for the agro-food enterprises of smallholder women in the Free State province. The results show that the first hypothesis was supported by a positive relationship between production and empowerment success regarding the smallholder women conducting agro-food enterprises in the Free State province of the Republic of South Africa ($B = 0.133$, $p < 0.000$). Similarly, all subsequent hypotheses were also supported. These results imply that there are positive and significant relationships between transformations and empowerment ($B = 0.151$, $p < 0.000$); capacity building and empowerment ($B = 0.313$, $p < 0.000$); entrepreneurship and empowerment ($B = 0.552$, $p < 0.007$); and savings and competitiveness ($B = 0.463$, $p < 0.000$).

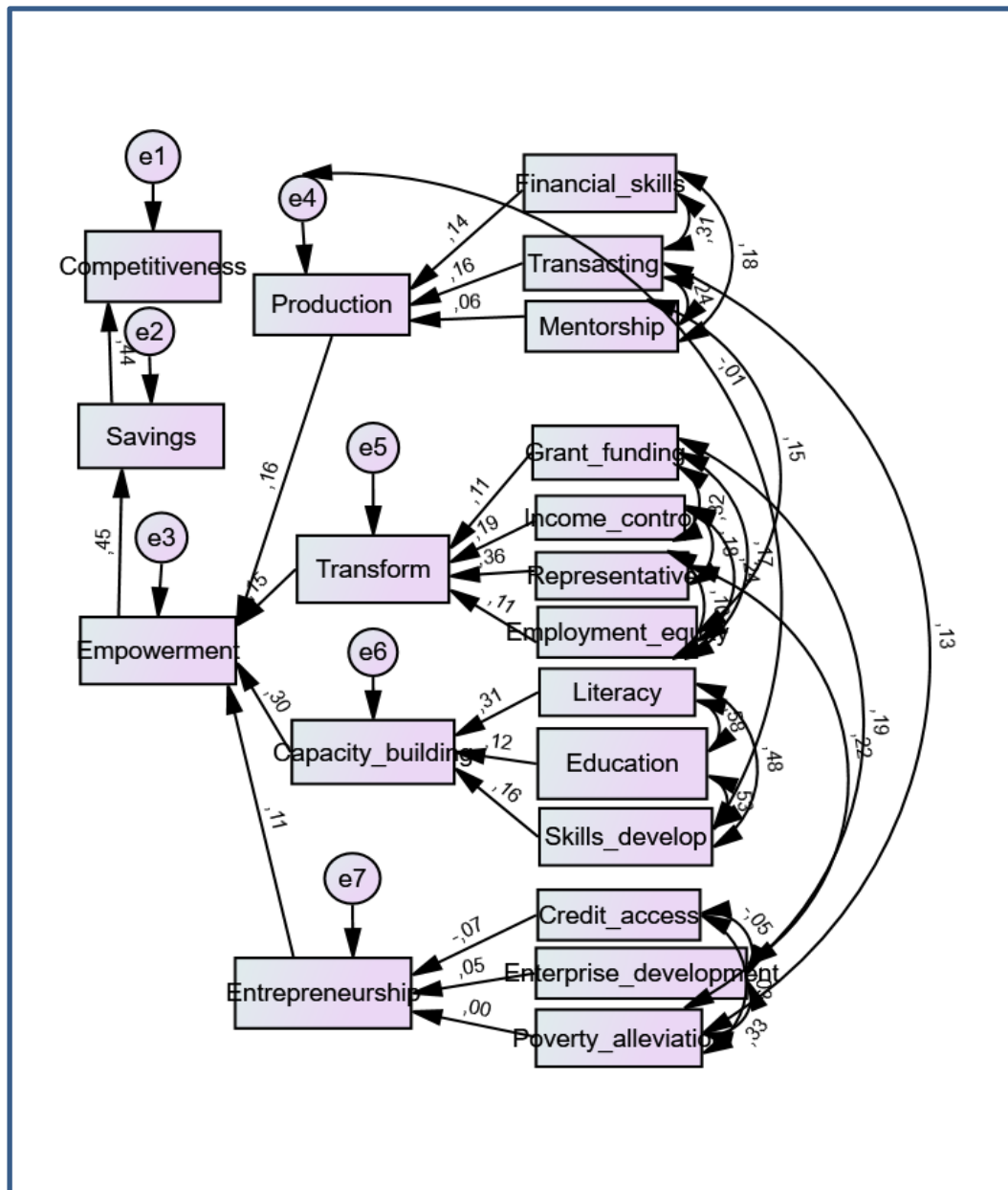


Figure 7.2: Standardized regression weights for the smallholder women’s agro-food enterprises

Source: Survey (2020)

Table 7.7: Standard regression weights for the smallholder women’s agro-food enterprises

Relationships			Estimate	S.E.	C.R.	P
Production	<---	Financial skills	0,202	0,05	4,071	***
Production	<---	Mentorship	-0,001	0,045	-0,028	0,977
Transform	<---	Grant funding	0,126	0,045	2,761	0,006
Transform	<---	Income control	0,209	0,045	4,664	***
Transform	<---	Representative	0,359	0,039	9,152	***
Transform	<---	Employment equity	0,109	0,038	2,872	0,004
Capacity building	<---	Literacy	0,301	0,047	6,426	***
Capacity building	<---	Education	0,115	0,046	2,487	0,013
Capacity building	<---	Skills development	0,152	0,045	3,359	***
Entrepreneurship	<---	Credit access	-0,009	0,006	-1,57	0,116
Entrepreneurship	<---	Enterprise development	0,011	0,01	1,054	0,292
Entrepreneurship	<---	Poverty alleviation	0,001	0,009	0,085	0,932
Production	<---	Transacting	0,239	0,05	4,746	***
Empowerment	<---	Production	0,133	0,034	3,925	***
Empowerment	<---	Transform	0,151	0,04	3,731	***
Empowerment	<---	Capacity building	0,313	0,043	7,352	***
Empowerment	<---	Entrepreneurship	0,552	0,205	2,694	0,007
Savings	<---	Empowerment	0,454	0,039	11,531	***
Competitiveness	<---	Savings	0,463	0,042	10,991	***

Notes: SE = Standardized estimates; C.R. = composite reliability; P = values, *** = P < 0.000

7.5 DISCUSSIONS AND CONCLUSION

The results of the current study support the assumption that production, transformation, capacity building, and entrepreneurship are key drivers of the empowerment of the agro-food enterprises of smallholder women in the Free State province. On the other hand, empowerment encourages savings, which in turn ensures the competitiveness of these enterprises. Thus, in developing a competitive strategy for the empowerment of smallholder women conducting agro-food enterprises, it is clear that empowerment and savings are critical for the competitiveness of these enterprises (Min and Kim, 2021; Adanlawo, 2021; Mamo et al., 2021).

Adanlawo (2021) recommended that personal savings and cooperative societies should be regarded as essential for securing the competitiveness of informal small-scale and micro-enterprises. Similarly, Thaher et al. (2021) noted that training should be included in the model to ensure the competitiveness women's small-scale and micro-enterprises. This assertion confirms the results of the current study that indicate that empowerment is critical for promoting the savings of smallholder women's agro-food enterprises.

The results of this study have several theoretical implications. First, it regards savings and empowerment as comprising the most critical tenet of the competitiveness of these enterprises. Theoretically, this implies that savings and empowerment are critical for the competitiveness of these enterprises, unlike the common assertion that land ownership, government handouts, political connections, 'tenderpreneurship', and market access are decisive factors.

Although this study found that production, transformation, capacity building, and entrepreneurship were essential for the empowerment of these enterprises, it also ascertained that it has been widely reported that small-scale and micro-enterprises face challenges in accumulating savings (Manwari et al., 2017; Kaaya, 2018; Melubo and Musau, 2020; Shilimi, 2021). Kaaya (2018) highlighted the point that women conducting enterprises in Kampala's central division struggle to achieve success in their enterprises due to a lack of savings.

Secondly, the current study shows that the model formulated by the study has partially fulfilled the requirements of its composite reliability. Theoretically, this might imply that some of the constructs need further investigation to complete composite reliability. Although the composite reliability is an issue, the model has good convergent and discriminant validity. The model fit was also good, implying that, theoretically, the model is suitable for predicting the competitiveness of the agro-food enterprises of smallholder women.

From an applied perspective, this study may suggest policy guidelines to the policymakers as to how the competitiveness of these enterprises could be ensured. Specifically, the findings posit that empowerment and savings form the critical part of competitiveness, which can provide a basis for changing the government's mindset that providing grant funding, without evaluating the saving patterns of the grant recipient, could be counterproductive. This observation explains the phenomenon of the collapse of grant-funded enterprises after the withdrawal of government funding. This collapse has been seen as a loss of investment, thereby discouraging further investment in these enterprises.

In conclusion, the current model allays the concerns of researchers and practitioners regarding the lack of competitiveness of the smallholder women's agro-food enterprises, notwithstanding the fact that the government supports them. It recommends that savings and empowerment should be promoted to ensure the competitiveness of these enterprises. Further studies could investigate a savings and employment framework that could ensure that these enterprises do not collapse before they become competitive. Other subsequent studies could also examine the saving rate and banking systems that are compatible with these enterprises.

REFERENCES

- Abramov, R.A. and Sokolov, M.S., (2017). Current Challenges and Competitiveness Advantages of National Innovation Systems (NIS) of the Countries-Participants of the Union State up to 2030. *J. Advanced Res. L. & Econ.*, 8, p.1031.
- Adamczyk, W.M., Szikszay, T.M., Kung, T., Carvalho, G.F. and Luedtke, K., (2021). Not as "blurred" as expected? Acuity and spatial summation in the pain system. *Pain*, 162(3), p.794.
- Adanlawo, E.F., (2021). Informal financing and the performance of small and medium scale enterprises (SMEs). *Psychology and Education Journal*, 58(4), pp.3307-3315.
- AlKahtani, N., Iqbal, S., Sohail, M., Sheraz, F., Jahan, S., Anwar, B. and Haider, S., (2021). Impact of employee empowerment on organizational commitment through job satisfaction in four and five stars hotel industry. *Management Science Letters*, 11(3), pp.813-822.
- Almeida, F., (2018). Strategies to perform a mixed-methods study. *European Journal of Education Studies*. *European Journal of Education Studies* 5(1): pp. 137-151.
- Baral, N., Paria, B., Behera, B. and Mishra, P., (2021). Household behaviour and nutrition-sensitive agricultural practices: Experiences of smallholder farmers in Northern West Bengal, India. *World Development Perspectives*, 21, p.100296.
- Bentahar, O. and Cameron, R., (2015). Design and Implementation of a Mixed Method Research Study in Project Management. *Electronic Journal of Business Research Methods*, 13(1).
- Cavallo, A., Sanasi, S., Ghezzi, A. and Rangone, A., (2020). Competitive intelligence and strategy formulation: connecting the dots. *Competitiveness Review: An International Business Journal*. 31(2): 250-275.

- Chygryn, O., Rosokhata, A., Rybina, O. and Stoyanets, N., (2021). Green competitiveness: the evolution of concept formation. In *E3S Web of Conferences* (Vol. 234). EDP Sciences.
- Creswell, J.W. and Tashakkori, A., (2007). Developing publishable mixed-methods manuscripts. *Journal of Mixed Methods Research* 1(2) Pp. 107-111.
- D'Annolfo, R., Gemmill-Herren, B., Amudavi, D., Shiraku, H.W., Piva, M. and Garibaldi, L.A., (2021). The effects of agroecological farming systems on smallholder livelihoods: A case study on push-pull system from Western Kenya. *International Journal of Agricultural Sustainability*, 19(1), pp.56-70.
- Dayan, R., Heisig, P. and Matos, F., (2017). Knowledge management as a factor for the formulation and implementation of organization strategy. *Journal of Knowledge Management*.
- Fagerberg, J., (1996). Technology and competitiveness. *Oxford review of economic policy*, 12(3), pp.39-51.
- Falciola, J., Jansen, M. and Rollo, V., (2020). Defining firm competitiveness: A multidimensional framework. *World Development*, 129, p.104857.
- Fan, S., Teng, P., Chew, P., Smith, G. and Copeland, L., (2021). Food system resilience and COVID-19—Lessons from the Asian experience. *Global Food Security*, 28, p.100501.
- Ferreira, J. and Coelho, A., (2020). Dynamic capabilities, innovation and branding capabilities and their impact on competitive advantage and SME's performance in Portugal: the moderating effects of entrepreneurial orientation. *International Journal of Innovation Science*.
- Grant, R.M., (1991). The resource-based theory of competitive advantage: implications for strategy formulation. *California management review*, 33(3), pp.114-135.
- Herrington, M., Kew, P. and Mwanga, A, (2017), “*South Africa Report 2016/2017. Can small businesses survive in South Africa?*” University Of Cape Town, Cape Town.

- Irfan, M., Zhao, Z.Y., Rehman, A., Ozturk, I. and Li, H., 2021. Consumers' intention-based influence factors of renewable energy adoption in Pakistan: a structural equation modelling approach. *Environmental Science and Pollution Research*, 28(1), pp.432-445.
- Kaaya, R., (2018). *The impact of savings and credit co-operatives (Saccos) on women's livelihoods in Kampala district* (Masters dissertation, Makerere University).
- Kajiita, R.M. and Kang'ethe, S.M., (2021). Creating alternative interventions in social work to promote socio-economic development in South Africa: Lessons from selected social enterprises. *International Social Work*, p.0020872820972463.
- Kiger, M.E. and Varpio, L., (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical teacher*, 42(8), pp.846-854.
- Kumar, M.S., Rao, I.S., Rani, V.S. and Vidyasagar, G., (2021). Construction of scale for measuring attitude of students towards academic environment. *International Journal of Farm Sciences*, 11(1-2), pp.118-120.
- Lemon, L.L. and Hayes, J., (2020). Enhancing trustworthiness of qualitative findings: Using Leximancer for qualitative data analysis triangulation. *The Qualitative Report*, 25(3), pp.604-614.
- Levanon, A., Lavee, E. and Strier, R., (2021). Explaining the Factors Shaping the Likelihood of Poverty Among Working Families by Using a Concurrent Mixed Method Design. *Social Indicators Research*, pp.1-21.
- Mamo, Y.A., Sisay, A.M., Gilo, B.Y., Gebreselassie, H.G. and Debisa, M.A., (2021). Formalization of Ethiopian women entrepreneurs from the informal sector through the implementation of capacity-building program: the case of women entrepreneurs in selected zones in SNNPR, Ethiopia. *Local Development & Society*, pp.1-18.
- Manwari, L., Ngare, P. and Kipsang, R., (2017). Access to finance for women entrepreneurs in Kenya: challenges and opportunities. *Journal of Emerging Trends in Economics and Management Sciences*, 8(1), pp.37-47.

- Melubo, K.D. and Musau, S., (2020). Digital Banking and Financial Inclusion of Women Enterprises in Narok County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 2(1), pp.28-41.
- Min, S.A. and Kim, B.Y., (2021). SMEs' Digital Transformation Competencies on Platform Empowerment: A Case Study in South Korea. *The Journal of Asian Finance, Economics and Business*, 8(6), pp.897-907.
- Nanavaty, R., (2021). Women-to-Women Cooperation: Learnings from SEWA. *India–Africa Partnerships for Food Security and Capacity Building: South-South Cooperation*, pp.157-174.
- Norese, M.F., Corazza, L., Bruschi, F. and Cisi, M., (2021). A multiple criteria approach to map ecological-inclusive business models for sustainable development. *International Journal of Sustainable Development & World Ecology*, 28(1), pp.75-91.
- Njie-Carr, V., (2014). Violence experiences among HIV-infected women and perceptions of male perpetrators' roles: a concurrent mixed-method study. *Journal of the Association of Nurses in AIDS Care*, 25(5), pp.376-391.
- Onah, M.N., Horton, S. and Hoddinott, J., (2021). What empowerment indicators are important for food consumption for women? Evidence from 5 sub-Saharan African countries. *PloS one*, 16(4), p.e0250014.
- Popkova, E., Gornostaeva, Z. and Tregulova, N., (2018). Role of innovations in provision of competitiveness and innovational development of economy and overcoming of "underdevelopment whirlpools" in Russia and countries of Eastern Europe. *Journal of Entrepreneurship in Emerging Economies*.
- Safari, A., Adelpah, A., Soleimani, R., Aqagoli, P.H., Eidizadeh, R. and Salehzadeh, R., (2020). The effect of psychological empowerment on job burnout and competitive advantage. *Management Research: Journal of the Iberoamerican Academy of Management*.
- Salunke, S., Weerawardena, J. and McColl-Kennedy, J.R., (2019). The central role of knowledge integration capability in service innovation-based competitive strategy. *Industrial Marketing Management*, 76, pp.144-156.

- Sarwenda, B., (2020). Intellectual capital, business performance, and competitive advantage: An empirical study for the pharmaceutical companies. *QUALITY Access to Success*, pp.103-106.
- Seers, K., (2012). Qualitative data analysis. *Evidence-based nursing*, 15(1), pp.2-2.
- Shilimi, M.C., (2021). Examining Challenges Leading to Low Integration of Savings and Credit Co-Operative Societies (SACCOs) in National Economies: A Study of Zambia. *Open Journal of Business and Management*, 9(3), pp.1338-1366.
- Shrestha, N., (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), pp.4-11.
- Siudek, T. and Zawajska, A., (2014). Competitiveness in the economic concepts, theories, and empirical research. *Acta Scientiarum Polonorum. Oeconomia*, 13(1).
- Subiyantoro, K., Sagir, I.P., Herwany, A. and Febrian, E., (2020). Competitive Strategy Model And Its Impact On Micro Business Unit Of Local Development Banks In Jawa. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(4), pp.470-484.
- Susanto, C., Al Habsy, T. and Abdillah, Y., (2020). The influence of social entrepreneurship on the organizational learning, partnership, competitive advantages, and business performance (a study of a creative industry-based small scale apparel business in DKI Jakarta). *Human Systems Management*, (Preprint), pp.1-18.
- Tanumihardjo, S.A., McCulley, L., Roh, R., Lopez-Ridaura, S., Palacios-Rojas, N. and Gunaratna, N.S., (2020). Maize agro-food systems to ensure food and nutrition security in reference to the Sustainable Development Goals. *Global Food Security*, 25, p.100327.
- Thaher, L.M., Radieah, N.M. and Wan Norhaniza, W.H., (2021). The Effect of Microfinance Services on Women Entrepreneurship: A Case Study in Jordan. *The Journal of Asian Finance, Economics and Business*, 8(5), pp.807-815.

Uwineza, O., Lagat, J. and Berem, R.M., (2021). The role of women empowerment in agriculture on household farm commercialization of maize, potatoes and beans in Northern Province of Rwanda. *Journal of Agribusiness and Rural Development*, 59(1), pp.117-125.

Wiklund, J., Patzelt, H. and Shepherd, D.A. (2009), "Building an integrative model of

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

This chapter sets out the conclusion and the recommendations arising from the entire study. The chapter reflects on aspects such as an overview of the study, a summary of the main findings, conclusion, contributions or implications, areas for further studies, limitations, and a chapter summary.

8.2 OVERVIEW OF THE STUDY

The overview of the study describes all the research activities embarked on in the study. In Chapter 1, the background and context of the study were outlined, followed by descriptions of the problem statement, aim and objectives, and research questions. This is followed by a brief overview of the research methodology, together with a description of critical concepts, contribution of the study, delineation, assumptions and the layout of the study.

Chapter 2 focused on reviewing the literature and examined key theoretical and conceptual frameworks. The critical consideration was to review the smallholder women's agro-food enterprises from less-developed countries, and ultimately zoomed in on the Free State Province of South Africa.

Chapter 3 provided a comprehensive description of the research methodology and methods used. Essential elements of research methodology, namely research paradigm, the study area, population and sampling techniques, collection, preparation and analysis of data, and ethical considerations, were analysed. Finally, Chapters 4 to 7 presented a dedicated analysis and interpretation of the specific objectives of the study in the form of individual articles.

8.3 SUMMARY OF MAIN FINDINGS

This research aimed to develop a competitive strategy for smallholder women's agro-food enterprises in the Free State Province. The study came up with empirical results that are mainly descriptive and inferential. Therefore, this chapter only highlights the main findings of this thesis (see the summary of the main findings of the various objectives below).

8.3.1 Summary of principal findings according to the study's objectives

8.3.1.1 Effect of market access on the modernization of smallholder women's agro-food enterprises in Free State Province, South Africa

The results revealed that market access is not the highest priority for effecting the transformation of this farming system; rather, business ownership, representation, and management control are the key factors.

8.3.1.2 Key factors that determine the economic empowerment of small-scale agro-processors

This study concluded that business ownership, representation of women, and management control in these enterprises are necessary elements for transforming these enterprises.

8.3.1.3 Analysis of the domains of empowerment for smallholder women's agro-food enterprises: evidence from Free State Province of the Republic of South Africa

The results revealed that capacity-building, business networks, access to markets, income, transformation, and infrastructure are critical tenets for the economic empowerment of small-scale agro-processors.

8.3.1.4 The development of a competitive strategy for the empowerment of smallholder women's agro-food enterprises in the Free State Province of Republic of South Africa

The study revealed that the study's results imply a positive and significant relationship between transformation and empowerment, capacity building and empowerment, entrepreneurship and empowerment, and savings and competitiveness.

8.3.2 Summary of major findings from the descriptive analysis

In this study, the results revealed that the owners of smallholder agro-food enterprises range in age from 47 to 34 years of age. The entrepreneurs in Lejweleputswa municipality are, on average, the oldest ($M = 47.012$; $SD = 11.587$), while Xhariep District Municipality has the youngest of the entrepreneurs in the sub-sector ($M = 33.500$; $SD = 9.000$). Regarding the incomes of the entrepreneurs among the district municipalities under study, the results show that entrepreneurs in Xhariep experience a slightly lower income ($M = 4.000$; $SD = 1.000$) than those in Lejweleputswa District Municipality ($M = 4.426$; $SD = 0.744$). Entrepreneurs in Lejweleputswa have business and sales experience twice as high as those in Xhariep.

8.3.3 Summary of main findings from inferential or empirical analysis

The results show that the hypothesis that access to a market accounts for a significant proportion of the variance in the transformation of the agro-food enterprises of smallholder women was to be rejected, at a 5% p-value. Thus, although market access is a substantial contributor to change in this farming system, its impact was relatively lower than that of the compounding variables within the respective models. Furthermore, the results also suggested that, when business ownership, management control and representative are included in the model with market access, market access is still positively significant ($\beta = 0.059$, $p = 0.05$) for influencing the transformation of the agro-food enterprise of smallholder women.

8.4 SUMMARY OF CONCLUSIONS

8.4.1 Descriptive analysis

From the descriptive analysis of the study, it can be concluded that the field of women's smallholder agro-food enterprises is dominated by vegetable, livestock and horticultural production. In contrast, grain and processing lag behind these commodities in terms of their prominence in production. Furthermore, the women participants in these enterprises rated grain and vegetables as providing the primary source of transformation of their enterprises. The transformation of women's smallholder agro-food enterprises appears to be gaining greater traction among enterprises located in Lejweleputswa, Mangaung Metro, and the Thabo Mofutsanyane and Xhariep District Municipalities. These rates of transformation seem to mirror the poverty levels in their respective districts whereby the relationship is inversely proportional with higher transformation and lower poverty levels relationship.

8.4.2 Empirical analysis

From the inferential results, it can be concluded that the business ownership of the smallholder women's agro-food enterprises has a positive and significant relationship with management control, market access and representativity. Furthermore, business ownership and representativity in the governance structure are positive and significant influential factors that could play an essential role in fostering the transformation of these enterprises. The empowerment of smallholder women conducting agro-food enterprises in the Free State Province is significantly influenced by the control of the use of income, followed by the time allocation for their enterprises, access to decision-making power, and actual empowerment. The empirical analysis further shows that the community's leadership by smallholder women agro-food entrepreneurs can significantly reduce their empowerment. On the other hand, decisions relating to agricultural production, access to decision-making and time allocated to their production have a significant and positive impact on their empowerment processes.

The study provided certain essential conclusions, as follows: the business network is a critical internal resource of small-scale agro-processing enterprises, and the

entrepreneurs operating these enterprises should be invited to network functions or events to showcase their products. Furthermore, it can be concluded that capacity building, transformation and infrastructure are critical factors that determine the economic empowerment of these entrepreneurs. In this regard, capacity building is the top priority for ensuring that empowerment is achieved.

It is also possible to assume that interventions in the development of small-scale agro-processing enterprises should be carried out over an extended period. Furthermore, such interventions should be well planned, with sufficient financial resources, and have strong leadership. Finally, it is possible to conclude that capacity-building, business networks, initiatives, market access, and income from enterprises are all needed to empower small-scale agro-processors.

8.5 SUMMARY OF CONTRIBUTIONS OR IMPLICATIONS

Section 7.5. focuses on this study's contributions and is divided into four subsections: contribution to theory, practice; policy; and management.

8.5.1 Theoretical contribution

This study has offered various theoretical contributions towards existing theories. The study has shown that human capital development in the agro-food enterprises of smallholder women is required, as regards competitive theory. It shows that women's smallholder enterprises could become resourceful if they were to become involved in agricultural production decision-making and be given greater decision-making powers. It also shows that these enterprises can become competitive, if heterogeneous resources, which are purposely allocated for empowerment, are assigned to these enterprises to serve as factors that influence transformation. The resource mobility for these enterprises needs to be enhanced to ensure that the time allocated for empowerment and production is effectively utilized. The New Institutional Economic Theory also questions the institutional organizations of the smallholder women conducting agro-food enterprises in the Free State Province. The study results indicate that women need to have control over their businesses and the cash flow their businesses. This is a unique addition to the theoretical makeup of the businesses that

women agro-food enterprises conduct because there are virtually no institutions that attempt to organize the agricultural enterprises of Free State women. Moreover, there is no provision in the existing strategies that could empower the smallholder women's agro-food enterprises.

8.5.2 Practical contributions

The practical contributions of the study ranged from the providing a strategic framework to empower women conducting agro-food enterprises to ascertaining the domains for the empowerment of women in these enterprises. These contributions were developed through understanding the historical disempowerment that occurred because of patriarchy and the former apartheid governing system. This study proposes that ownership, management control, representativeness and empowerment are critical for ensuring the competitiveness of the enterprises mentioned above.

8.5.3 Contribution to policy

This study has various implications for policies that affect the agricultural sector in South Africa, such as policies regarding affirmative action, women's empowerment policy, Agri-BEE, the National Development Plan (NDP), and the Industrial Policy Action Plan (IPAP). It is well known that women and children are affected the worst by poverty and economic marginalization. Hence, the policies mentioned above were designed to target women and children as the immediate beneficiaries of the transformation processes. The key to this study's findings was to ensure that women are given decisive control over their enterprises and production processes, and are provided with productive resources to enable their empowerment status. These policies lack the strategic framework that this study has now provided. Moreover, this framework provides clear guidance on the critical, influential tenets of the empowerment of these enterprises.

8.5.4 Contribution to management

This study has shown that there are no institutions at the Provincial Department of Agriculture that are dedicated to providing empowerment support at the grassroots level, and this talks to the level of disorganization of these enterprises. These enterprises can only have an impact if they are organized into business units that are significantly networked with the scientific bodies whose role and function is to provide business intelligence information. Because of the lack of organization, the resources available for the advancement of these enterprises tend to have less impact on the strategic milestones of these businesses. The model developed by this study should be utilized, so that empowerment, which depends on production, transformation, capacity building and entrepreneurship, would generate profits and lead to the competitiveness of the enterprises. These contributions of this study to the management of the agro-food enterprises agro-food enterprises of smallholder women are critical for their growth and sustainability.

8.6 REVISITING THE RESEARCH QUESTIONS

In Chapter 1 of this study, the following research questions were asked:

- Which indicators will influence the competitiveness of the agro-food enterprises smallholder women?
- Which indicators are valuable for building the following constructs?
 - transformation
 - production
 - capacity building
 - entrepreneurship.
- Which domains of empowerment are essential for smallholder women's agro-food enterprises?
- Which competitive strategy could lead to the empowerment of smallholder women in their agro-food enterprises in the Free State Province?

8.7 REVISITING THE HYPOTHESES

The following null and alternative hypotheses were stated:

- H1 There is a positive relationship between production and empowerment success in the smallholder women's agro-food enterprises in the Free State province of the Republic of South Africa.
- H2 There is a positive relationship between transformation factors and women's empowerment in agro-food enterprises.
- H3 There is a positive relationship between capacity building factors and women's empowerment in agro-food enterprises.
- H4 There is a positive relationship between entrepreneurship factors and women's empowerment in agro-food enterprises.
- H5 There are positive mediating effects between empowerment and savings and the competitive advantage of smallholder women's agro-food business enterprises in the Free State of the Republic of South Africa.

8.8 AREAS FOR FUTURE STUDIES

The gaps and the areas for future studies, as identified in this study, are listed below:

- Study on women's empowerment in different provinces and supportive structures for smallholder women's agro-food enterprises in South Africa.
- Investigation of the land ownership of smallholder women and their representation in governance structures.
- Studies on the gender and financing dynamics of women's agricultural enterprises in South African smallholder enterprises.
- Studies on the impact of women's empowerment and community leadership.

8.9 LIMITATION OF THE STUDY

The study's limitation was mainly resource-based. This is because the study was self-sponsored by the candidate, and therefore, the funds for data collection were quite limited. As a result, limited focus sessions and one-on-one discussions with experts were held due to resource constraints. On the other hand, the cooperation received from the Free State Department of Agriculture and Rural Development was highly satisfactory, such that greater numbers of smallholder women engaged in agro-food enterprises were interviewed. However, the department could not supply the resources to facilitate focus sessions and provide the catering and transport needed for the participants. Nevertheless, these limitations had minimal impact on the outcome of the study because an adequate number of participants appeared for the face-to-face interviews.

8.10 CHAPTER SUMMARY

This chapter summarizes critical outcomes, ranging over an overview of the findings, main conclusion, and contributions (theoretical, practical, policy and management). It also highlighted the research questions, hypotheses, future studies and limitations of the study.

REFERENCES

- Abor, J. and Quartey, P., 2010. Issues in SME development in Ghana and South Africa. *International research journal of finance and economics*, 39(6), pp.215-228.
- Abramov, R.A. and Sokolov, M.S., 2017. Current Challenges and Competitiveness Advantages of National Innovation Systems (NIS) of the Countries-Participants of the Union State up to 2030. *J. Advanced Res. L. & Econ.*, 8, p.1031.
- Abubakar, H.B., Newete, S.W., and Scholes, M.C., 2020. Drought characterization and trend detection using the reconnaissance drought index for Setsoto Municipality of the Free State Province of South Africa and the impact on maize yield. *Water*, 12(11), p.2993.
- Adamczyk, W.M., Szikszay, T.M., Kung, T., Carvalho, G.F. and Luedtke, K., 2021. Not as “blurred” as expected? Acuity and spatial summation in the pain system. *Pain*, 162(3), p.794.
- Adanlawo, E.F., 2021. INFORMAL FINANCING AND THE PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES (SMEs). *Psychology and Education Journal*, 58(4), pp.3307-3315.
- Adeoti, A.I., Cofie, O. and Oladele, O.I., 2012. Gender analysis of the contribution of urban agriculture to sustainable livelihoods in Accra, Ghana. *Journal of Sustainable Agriculture*, 36(2), pp.236-248.
- Age, B., 2015. Wikipedia, the free encyclopedia.
- Aiginger, K., Bärenthaler-Sieber, S. and Vogel, J., 2013. *Competitiveness under new perspectives* (No. 44). WWWforEurope Working Paper.
- Alhojailan, M.I., 2012. Thematic analysis: A critical review of its process and evaluation. *West east journal of social sciences*, 1(1), pp.39-47.

- Ali, B.J. and Anwar, G., 2021. Business strategy: The influence of Strategic Competitiveness on competitive advantage. *International Journal of Electrical, Electronics and Computers*, 6(2).
- AlKahtani, N., Iqbal, S., Sohail, M., Sheraz, F., Jahan, S., Anwar, B. and Haider, S., 2021. Impact of employee empowerment on organizational commitment through job satisfaction in four and five stars hotel industry. *Management Science Letters*, 11(3), pp.813-822.
- Almeida, F., 2018. Strategies to perform a mixed-methods study. *European Journal of Education Studies*.
- Amit, R. and Schoemaker, P.J., P.(1993): "Strategic assets and organizational rent". *Strategic Management Journal*, 14(1), pp.34-46.
- Amusan, L. and Ngoh, M.S., 2016. Women as agents of development: an assessment of Modimola Village in the North West Province of South Africa through the Expanded Public Works Programme (EPWP). *Gender and Behaviour*, 14(2), pp.7238-7245.
- Anderson, S. and Eswaran, M., 2009. What determines female autonomy? Evidence from Bangladesh. *Journal of Development Economics*, 90(2), pp.179-191.
- Anukriti, S., 2014. *The fertility-sex ratio trade-off: unintended consequences of financial incentives* (No. 8044). IZA Discussion Papers.
- Aziz, N., Ren, Y., Rong, K. and Zhou, J., 2021. Women's empowerment in agriculture and household food insecurity: Evidence from Azad Jammu & Kashmir (AJK), Pakistan. *Land Use Policy*, 102, p.105249.
- Bachewe, F.N., Berhane, G., Minten, B. and Taffesse, A.S., 2018. Agricultural transformation in Africa? Assessing the evidence in Ethiopia. *World Development*, 105, pp.286-298.

- Bahta, Y.T., Willemse, B.J. and Grove, B., 2014. The role of agriculture in welfare, income distribution and economic development of the Free State Province of South Africa: A CGE approach. *Agrekon*, 53(1), pp.46-74.
- Bakla, A., 2018. Learner-generated materials in a flipped pronunciation class: A concurrent explanatory mixed-methods study. *Computers & Education*, 125, pp.14-38.
- Baloyi, M. (2011). Great strides towards rural development. Available at: <https://www.vukuzenzele.gov.za/book/export/html/848> (Accessed 14 June 2019)
- Baral, N., Paria, B., Behera, B. and Mishra, P., 2021. Household behaviour and nutrition-sensitive agricultural practices: Experiences of smallholder farmers in Northern West Bengal, India. *World Development Perspectives*, 21, p.100296.
- Barkhuizen, L.M., and Weyl, O.L.F., 2020. Evaluating the suitability of fyke nets for small-scale fisheries in the Free State Province of South Africa. *Water SA*, 46(1), pp.153-157.
- Barney, J.B., 2002. Strategic management: From informed conversation to academic discipline. *Academy of Management Perspectives*, 16(2), pp.53-57.
- Behrens, K., Gaigne, C., Ottaviano, G.I. and Thisse, J.F., 2006. Is remoteness a locational disadvantage?. *Journal of Economic Geography*, 6(3), pp.347-368.
- Bellah, R.N., Haan, N., Rabinow, P. and Sullivan, W.M. eds., 1983. *Social science as moral inquiry*. Columbia University Press.
- Belle, G., Fossey, A., Esterhuizen, L. and Moodley, R., 2021. Contamination of groundwater by potential harmful elements from gold mine tailings and the implications to human health: A case study in Welkom and Virginia, Free State Province, South Africa. *Groundwater for Sustainable Development*, 12, p.100507.
- Bentahar, O. and Cameron, R., 2015. Design and implementation of a mixed-method research study in project management. *Electronic Journal of Business Research Methods*, 13(1), pp.pp3-15.

- Bereng, M. and Mutekwe, E., 2021. Examining the manifestations and ramifications of the patriarchal ideology in female-led schools in the North West Province of South Africa. *Perspectives in Education*, 39(2), pp.191-207.
- Bhebhe, S., Ntinda, K. and Maseko, T., 2022. HANDLING LEARNERS WITH LEARNING DIFFICULTIES IN THE CLASSROOM AT PRIMARY SCHOOL LEVEL: A CASE OF TEACHERS IN THE MANZINI REGION OF ESWATINI. *EPRA International Journal of Research and Development (IJRD)*, 7(7), pp.181-187.
- Black, H.C., Garner, B.A. and McDaniel, B.R., 1999. Black's law dictionary (Vol. 196). *St. Paul, MN: West Group*.
- Bobo, T., 2011. Challenges of rural women. *East London, South Africa: Masimanyane Women's Support Centre*.
- Bonny, B.P. and Rajendran, P., 2013. Evaluation of Self Help Groups (SHG) as a social enterprise for women empowerment. *Journal of Tropical Agriculture*, 51(1), pp.60-65.
- Borsellino, V., Schimmenti, E. and El Bilali, H., 2020. Agri-food markets towards sustainable patterns. *Sustainability*, 12(6), p.2193.
- Boucher, V.G., Pelaez, S., Parent, A.A., Plouffe, J. and Comtois, A.S., 2020. Momentum during a running competition: A sequential explanatory mixed-methods study. *International Journal of Exercise Science*, 13(5), p.615.
- Bowen, P., Rose, R. and Pilkington, A., 2017. Mixed methods theory and practice. Concurrent, explanatory approach. *International Journal of Quantitative and Qualitative Research Methods*, 5(2), pp.10-27.
- Brunero, S., Dunn, S. and Lamont, S., 2021. Development and effectiveness of tabletop exercises in preparing health practitioners in violence prevention management: A concurrent explanatory mixed-methods study. *Nurse education today*, 103, p.104976.

- Buchanan, D.R., 1998. Beyond positivism: humanistic perspectives on theory and research in health education. *Health Education Research*, 13(3), pp.439-450.
- Bugrim, O.Y. and Kolesnik, E.O., 2020. Analysis of competitiveness of enterprises in the scale of the metallurgical industry of Ukraine. *Korea*, 69, pp.72-5.
- Buhler, P., 2001. *Alpha, teach yourself management skills in 24 hours*. Alpha Books and Penguin Group Inc. USA
- Cavallo, A., Sanasi, S., Ghezzi, A. and Rangone, A., 2020. Competitive intelligence and strategy formulation: connecting the dots. *Competitiveness Review: An International Business Journal*.
- Chakona, G. and Shackleton, C., 2017. Minimum dietary diversity scores for women indicate micronutrient adequacy and food insecurity status in South African towns. *Nutrients*, 9(8), p.812.
- Chiliza, T.H. and Masuku, M.M., 2020. Manifestation of gender inequality in some Zulu proverbs that reflect patriarchal domination of women (by men) within the Zulu cultural context. *Indilinga African Journal of Indigenous Knowledge Systems*, 19(1), pp.58-69.
- Chinomona, E. and 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.
- Cho, D.S., Ryan, P. and Buciuni, G., 2021. Evolutionary entrepreneurial ecosystems: A research pathway. *Small Business Economics*, pp.1-19.
- Chygryn, O., Rosokhata, A., Rybina, O. and Stoyanets, N., 2021. Green competitiveness: the evolution of concept formation. In *E3S Web of Conferences (Vol. 234)*. EDP Sciences.
- Christiansen, L.B, Johnson R.B. and Turner, L.A. 2015. *Research methods, Design, and Analysis*. 12th Ed. Pearson Education Limited, Great Britain.

- Clark, P.W., Williams, L.T., Kirkegaard, A., Brickley, B. and Ball, L., 2022. Perceptions of private practice dietitians regarding the collection and use of outcomes data in primary healthcare practices: A qualitative study. *Journal of Human Nutrition and Dietetics*, 35(1), pp.154-164.
- Clough, D.R. and Piezunka, H., 2020. Tie dissolution in market networks: A theory of vicarious performance feedback. *Administrative Science Quarterly*, 65(4), pp.972-1017.
- Clover, J., 2003. Food security in sub-Saharan Africa. *African security review*, 12(1), pp.5-15.
- Collins, A. J. and Fraser, C.J.M.B., 2005. *Balancing the strengths of systematic and narrative reviews*. Human Reproduction Update, 11 (2), 103 – 104.
- Colverson, K.E., Coble-Harris, L., Galie, A., Moore, E.V., Munoz, O., McKune, S.L., Singh, N., and Mo, R., 2020. Evolution of a gendered tool: WEAI, WELI, and livestock research. *Global Food Security*, 26, p.100375.
- Cooper, A.C., Folta, T., Gimeno-Gascon, J. and Woo, C.Y., 1992, August. ENTREPRENEURS' EXIT DECISIONS: THE ROLE OF THRESHOLD EXPECTATIONS. In *Academy of Management Proceedings* (Vol. 1992, No. 1, pp. 75-79). Briarcliff Manor, NY 10510: Academy of Management.
- Cooper, D.R., Schindler, P.S. and Sun, J., 2006. *Business research methods* (Vol. 9, pp. 1-744). New York: McGraw-Hill.
- Cornell, J., Malherbe, N., Seedat, M. and Suffla, S., 2021. Discourses of Gender and Political Violence in South Africa. *Social Politics: International Studies in Gender, State & Society*.
- Creswell, J.W. and Tashakkori, A., 2007. Developing publishable mixed-methods manuscripts. *Journal of Mixed Methods Research* 1(2) Pp. 107-111.
- Croppenstedt, A., Goldstein, M., & Rosas, N. (2013). *Gender and agriculture: Inefficiencies, segregation, and low productivity traps*. The World Bank.

- DAFF, 2012. Integrated Growth and Development Plan. Department of Agriculture, Forestry and Fisheries. Pretoria. RSA.
- D'Annolfo, R., Gemmill-Herren, B., Amudavi, D., Shiraku, H.W., Piva, M. and Garibaldi, L.A., 2021. The effects of agroecological farming systems on smallholder livelihoods: A case study on push-pull system from Western Kenya. *International Journal of Agricultural Sustainability*, 19(1), pp.56-70.
- Das, J.K., 2014. Empowering farm women through income and livelihood generation. *International Journal of Bio-resource and Stress Management*, 5(1), pp.74-77.
- Dayan, R., Heisig, P. and Matos, F., 2017. Knowledge management as a factor for the formulation and implementation of organization strategy. *Journal of Knowledge Management*.
- Diamantopoulos, A. and Schlegelmilch, B.B. 2005. *Taking the fear out of data analysis*. 2nd Edition Bedroed Row. London. United Kingdom. Harcourt Brace and company limited.
- Di Vita, G., Chinnici, G. and D'AMICO, M., 2015. SUSTAINABILITY OF OLIVE OIL PRODUCTION IN SICILIAN MARGINAL AGRICULTURAL AREAS. *Quality-Access to Success*, 16.
- Dollinger, J.M., 1995. Entrepreneurship, Strategies and Resources, Richard D. *Irwin, Homewood, IL*.
- Drimie, S., 2016. Understanding South African Food and Agricultural Policy Implications for Agri-Food Value Chains, Regulation and Formal and Informal Livelihoods.
- Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature*, 50(4), 1051–1079.
- Du Toit, N.B., Forster, D., Roux, E.L. and Weber, S., 2021. Born Free? South African Young Adults, Inequality, and Reconciliation in Stellenbosch. *International Bulletin of Mission Research*, p.23969393211010747.

- Eiselen, R., Uys, T. and Potgieter, N., 2005. Analysing survey data using SPSS13: A workbook. *University of Johannesburg*.
- El Bilali, H., 2020. Transition heuristic frameworks in research on agro-food sustainability transitions. *Environment, development and sustainability*, 22(3), pp.1693-1728.
- Falciola, J., Jansen, M. and Rollo, V., 2020. Defining firm competitiveness: A multidimensional framework. *World Development*, 129, p.104857.
- Fan, S., Teng, P., Chew, P., Smith, G. and Copeland, L., 2021. Food system resilience and COVID-19—Lessons from the Asian experience. *Global Food Security*, 28, p.100501.
- FAO, 2016. Small-scale Farmers and Women Empowerment in the Near East and North Africa Region. FAO regional conference for the near east. Rome, Italy.
- FAO, F., 2017. The State of Food and Agriculture. Leveraging Food Systems for Inclusive Rural Transformation.
- FAO, 2011. The State of Food and Agriculture 2010–2011. Women in Agriculture: Closing the Gender Gap for Development, Food and Agriculture Organization of the United Nations, Rome.
- Ferreira, J. and Coelho, A., 2020. Dynamic capabilities, innovation and branding capabilities and their impact on competitive advantage and SME's performance in Portugal: the moderating effects of entrepreneurial orientation. *International Journal of Innovation Science*.
- Finucane, A.M., Swenson, C., MacArtney, J.I., Perry, R., Lamberton, H., Hetherington, L., Graham-Wisener, L., Murray, S.A. and Carduff, E., 2021. What makes palliative care needs “complex”? A multisite concurrent explanatory mixed methods study of patients referred for specialist palliative care. *BMC palliative care*, 20(1), pp.1-11.

- Fried, H.O., Schmidt, S.S. and Yaisawarng, S., 1999. Incorporating the operating environment into a nonparametric measure of technical efficiency. *Journal of productivity Analysis*, 12(3), pp.249-267.
- Galt, R.E., Parr, D., Kim, J.V.S., Beckett, J., Lickter, M. and Ballard, H., 2013. Transformative food systems education in a land-grant college of agriculture: The importance of learner-centred inquiries. *Agriculture and Human Values*, 30(1), pp.129-142.
- Gano-An, J.C. and Gempes, G.P., 2020. The success and failures of sari-sari stores: Exploring the minds of women micro-entrepreneurs. *HOLISTICA–Journal of Business and Public Administration*, 11(2), pp.25-51.
- Gill, P., Stewart, K., Treasure, E. and Chadwick, B., 2008. Methods of data collection in qualitative research: interviews and focus groups. *British dental journal*, 204(6), pp.291-295.
- Grabs, J. and Carodenuto, S.L., 2021. Traders as sustainability governance actors in global food supply chains: A research agenda. *Business Strategy and the Environment*, 30(2), pp.1314-1332.
- Grant, R.M., 1991. The resource-based theory of competitive advantage: implications for strategy formulation. *California management review*, 33(3), pp.114-135.
- Greenberg, S., 2015. Agrarian reform and South Africa's agro-food system. *The Journal of Peasant Studies*, 42(5), pp.957-979.
- Groenewald, J.A (2008). Personal Communication. Agricultural SMME's. University of Free State, Brandwag, Bloemfontein.
- Grown, C., Gupta, G.R. and Khan, Z., 2003. Promises to keep: achieving gender equality and the empowerment of women. *Background Paper of the Task Force on Education and Gender Equality: Millenium Project. Washington, DC: International Center for Research on Women.*

- Hadisu Bello, A., Scholes, M., and Newete, S.W., 2020. Impacts of Agroclimatic Variability on Maize production in the Setsoto municipality in the Free State Province, South Africa. *Climate*, 8(12), p.147.
- Hafiz, U.A., Salleh, F. and Garba, M., 2021. A Theoretical Basis for Innovation, Institutions and Insurance Penetration Nexus. *Advances in Social Sciences Research Journal*, 8(3).
- Hall, D., Hirsch, P. and Li, T.M., 2011. Introduction to powers of exclusion: land dilemmas in Southeast Asia.
- Hamilton, W., 1932. The Problem of Anti-Trust Reform
- Hamilton, W.H., 1919. The institutional approach to economic theory. *The American Economic Review*, 9(1), pp.309-318.
- Heera, K.C., Shrestha, M., Pokharel, N., Niraula, S.R., Pyakurel, P., and Parajuli, S.B., 2020. Women empowerment for abortion and family planning decision making among marginalized women in Nepal: a mixed-method study.
- Held, D., 2021. Democracy and Globalization. In *Understanding Global Cooperation* (pp. 58-74). Brill.
- Hocoy, D., 2020. of Apartheid in South Africa. Merging Past, Present, and Future in *Cross-cultural Psychology*, p.308.
- Ireland, H.M., 2021. 'Noble Mothers' and their Others: Racialized Women Entrepreneurs and Poverty Finance. *Journal of International Women's Studies*, 22(7), pp.69-82.
- Irfan, M., Zhao, Z.Y., Rehman, A., Ozturk, I. and Li, H., 2021. Consumers' intention-based influence factors of renewable energy adoption in Pakistan: a structural equation modelling approach. *Environmental Science and Pollution Research*, 28(1), pp.432-445.
- Isaacs, M. and Nangle, M., 2021. Sink or swim?: how Covid-19 and the responses to it have affected small-scale fishers. *Policy Brief 57*.

- Isakson, S.R., 2014. Food and finance: The financial transformation of agro-food supply chains. *The Journal of Peasant Studies*, 41(5), pp.749-775.
- Jamil S.A., Abdullah A, Long S., Jupri M , Mamat M., 2018. A Stepwise Logistic Regression Analysis: An application toward Poultry Farm Data in Johor. *International Journal of Engineering & Technology* 7(3.28), pp. 68-71.
- JICA, T., 2004. Capacity Development Handbook for JICA staff.
- Jiyane, G., 2021. Recounting the Empowerment of Women in Rural Areas of KwaZulu-Natal from Information and Knowledge in the Fourth Industrial Revolution Era. *Libri*, 71(1), pp.41-50.
- Jordaan, H., Grové, B., & Backeberg, G. R. (2014). Conceptual framework for value chain analysis for poverty alleviation among smallholder farmers. *Agrekon*, 53(1), 1-25.
- Joyce, J.B., Douglass, T., Benwell, B., Rhys, C.S., Parry, R., Simmons, R. and Kerrison, A., 2022. Should we share qualitative data? Epistemological and practical insights from conversation analysis. *International Journal of Social Research Methodology*, pp.1-15.
- Kaaya, R., 2018. *The impact of savings and credit co-operatives (Saccos) on women's livelihoods in Kampala district* (Masters dissertation, Makerere University).
- Kajiita, R.M. and Kang'ethe, S.M., 2021. Creating alternative interventions in social work to promote socio-economic development in South Africa: Lessons from selected social enterprises. *International Social Work*, p.0020872820972463.
- Karavidas, D., 2020. Market Access and Home Market Effect. *Open Economics*, 3(1), 42-49.
- Kariuki, F.K., 2022. Nexus Between Capacity-Building Strategic Renewal and Performance of Youth-Owned Agro-Processing Small and Medium Enterprises in Selected Counties in Kenya. *Manag Econ Res J*, 8(2), p.37199.

- Karpouzoglou, T. and Barron, J., 2014. A global and regional perspective of rainwater harvesting in sub-Saharan Africa's rainfed farming systems. *Physics and Chemistry of the Earth, Parts A/B/C*, 72, pp.43-53.
- Khan, S., Nasir, N., Jamshed, S., Omer, M. and Nasir, S., 2020. Exploring the Orientation factors of Women Entrepreneurs: A Life Course Approach. *International Journal of Psychosocial Rehabilitation*, 24(04).
- Kherallah, M., Minot, N., Kachule, R., Soule, B.G. and Berry, P., 2001. Impact of agricultural market reforms on smallholder farmers in Benin and Malawi.
- Khoabane, M., 2017. Free State Agriculture and Rural Development Provincial Budget Vote 2017/2018
- Khoza, S., de Beer, L.T., van Niekerk, D. and Nemaakonde, L., 2021. A gender-differentiated analysis of climate-smart agriculture adoption by smallholder farmers: Application of the extended technology acceptance model. *Gender, Technology and Development*, 25(1), pp.1-21.
- Kiger, M.E. and Varpio, L., 2020. Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical teacher*, 42(8), pp.846-854.
- Komarkova, L., Pirozek, P. and Pudil, P., 2014. The factors and other characteristics influencing competitiveness of enterprises in countries in the post-transition phase of the economy. *Engineering Economics*, 25(5), pp.513-521.
- Kornegay, E., 2000. South Africa's National Policy Framework for Women's Empowerment and Gender Equality. *Pretoria: The Office on the Status of Women National Gender Policy Framework*.
- Kudyba, S., Fjermestad, J. and Davenport, T., 2020. A research model for identifying factors that drive effective decision-making and the future of work. *Journal of Intellectual Capital*.
- Kuhn, M.L., Viviers, W., Sewdass, N. and Calof, J., 2020. The business anticipatory ecosystem outside the "first world": competitive intelligence in South Africa. *ФОРСАЙТ*, 14(3 (eng)).

- Kumar, M.S., Rao, I.S., Rani, V.S. and VIDYASAGAR, G., 2021. Construction of scale for measuring attitude of students towards academic environment. *International Journal of Farm Sciences*, 11(1-2), pp.118-120.
- Kyngäs, H., 2020. Inductive content analysis. In *The application of content analysis in nursing science research* (pp. 13-21). Springer, Cham.
- Lailulo, Y.A., Susuman, A.S. and Blignaut, R., 2015. Correlates of gender characteristics, health and empowerment of women in Ethiopia. *BMC women's health*, 15(1), pp.1-9.
- Latruffe, L., 2010. *Competitiveness, productivity and efficiency in the agricultural and agri-food sectors* (Doctoral dissertation, Auto-Saisine).
- Lawson, J. and Floyd, J., 1996. The future of epidemiology: a humanist response. *American journal of public health*, 86(7), pp.1029-1030.
- Lemon, L.L. and Hayes, J., (2020). Enhancing trustworthiness of qualitative findings: Using Leximancer for qualitative data analysis triangulation. *The Qualitative Report*, 25(3), pp.604-614.
- Levanon, A., Lavee, E. and Strier, R., (2021). Explaining the Factors Shaping the Likelihood of Poverty Among Working Families by Using a Concurrent Mixed Method Design. *Social Indicators Research*, pp.1-21.
- Lieberman, M., 2021. Is competitive advantage intellectually sustainable. *Strategic Management Review*, 2(1), pp.29-46.
- Ligthelm, A.A., 2005. Informal retailing through home-based micro-enterprises: The role of spaza shops. *Development Southern Africa*, 22(2), pp.199-214.
- Lindgren, B.M., Lundman, B. and Graneheim, U.H., 2020. Abstraction and interpretation during the qualitative content analysis process. *International journal of nursing studies*, 108, p.103632.

- Litheko, A., 2021. Business Support for Emerging Entrepreneurs in Eco-tourism: North West, South Africa. *Journal of Social Transformation and Regional Development*, 3(1), pp.15-23.
- Littrell, R.F. and Nkomo, S.M., 2005. Gender and race differences in leader behaviour preferences in South Africa. *Women in Management Review*.
- Losch, B., 2020. International experiences of support policies for smallholders: A review and an exploration of underlying rationale and narratives. Thematic report for the Project Employment-intensive rural land reform in South Africa.
- Louw, A., Jordaan, D., Ndanga, L. and Kirsten, J.F., 2008. Alternative marketing options for small-scale farmers in the wake of changing agri-food supply chains in South Africa. *Agrekon*, 47(3), pp.287-308.
- Louw, A., Vermeulen, H. and Madevu, H., 2006, January. Integrating small-scale fresh produce producers into the mainstream agri-food systems in South Africa: The case of a retailer in Venda and local farmers. In *International Conference on Management in AgriFood Chains and Networks*, Ede.
- Lyimo, N.E., Sikira, A.N. and Madaha, R., 2021. Gendered access and control over Quality Declared Seeds (QDS) resources among rice producers in Kilombero district, Morogoro, Tanzania.
- Luttrell, C., Quiroz, S., Scrutton, C. and Bird, K., 2009. *Understanding and operationalising empowerment* (pp. 1-16). London: Overseas Development Institute.
- Makandwa, G., de Klerk, S. and Saayman, A., 2021. Understanding the Experiences of Rural Women in Sustaining Tourism Enterprises. In *Gender and Tourism*. Emerald Publishing Limited.
- Malapit, H., Kovarik, C., Sproule, K., Meinzen-Dick, R. and Quisumbing, A.R., 2015. Instructional guide on the abbreviated women's empowerment in agriculture index (A-WEAI). *Washington, DC: International Food Policy Research Institute*.

- Malapit, H.J.L. and Quisumbing, A.R., 2015. What dimensions of women's empowerment in agriculture matter for nutrition in Ghana? *Food Policy*, 52, pp.54-63.
- Maleku, A., Kim, Y.K., Kagotho, N. and Lim, Y., 2021. Expanding the transformative explanatory concurrent mixed methods design archetype in a cross-cultural context: The polemics of African refugee livelihoods in places of resettlement. *Journal of Mixed Methods Research*, 15(2), pp.212-239.
- Mamo, Y.A., Sisay, A.M., Gilo, B.Y., Gebreselassie, H.G. and Debisa, M.A., (2021). Formalization of Ethiopian women entrepreneurs from the informal sector through the implementation of capacity-building program: the case of women entrepreneurs in selected zones in SNNPR, Ethiopia. *Local Development & Society*, pp.1-18.
- Man, T.W., Lau, T. and Chan, K.F., 2002. The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of business venturing*, 17(2), pp.123-142.
- Manasoe, B., Mmbengwa, V.M. and Lekunze, J.N., 2022. EVALUATING DOMAINS ASSOCIATED WITH ECONOMIC EMPOWERMENT OF SMALL-SCALE FEMALE AGRO-PROCESSORS IN SOUTH AFRICA. *Journal of Agribusiness and Rural Development*, 64(2), pp.115-130.
- Manwari, L., Ngare, P. and Kipsang, R., (2017). Access to finance for women entrepreneurs in Kenya: challenges and opportunities. *Journal of Emerging Trends in Economics and Management Sciences*, 8(1), pp.37-47.
- Mapfumo, P., Chagwiza, C., and Antwi, M., 2020. Impact of rainfall variability on maize yield in the KwaZulu-Natal, North-West, and Free State provinces of South Africa (1987–2017). *Journal of Agribusiness and Rural Development*, 58(4), pp.359-367.
- Mapuranga, M., 2016. The position of women on land in new resettlement areas: a case study of Simoona in Bindura, Zimbabwe. *Business & Social Sciences Journal*, 1(3), pp.248-289.

- Marletta, A., Mussini, M. and Zenga, M., 2021. An analysis of the dynamics of the competitiveness for some European Countries. *Preface XIX 1 Plenary Sessions*, p.56.
- Matachi, A., 2006. Capacity building framework. *United Nations Economic Commission for Africa. Online Submission*.
- McEwan, C. and Bek, D., 2006. (Re) politicizing empowerment: Lessons from the South African wine industry. *Geoforum*, 37(6), pp.1021-1034.
- McVee, M.B., Silvestri, K.N., Schucker, K.A. and Cun, A., 2021. Positioning theory, embodiment, and the moral orders of objects in social dynamics: How positioning theory has neglected the body and artifactual knowing. *Journal for the Theory of Social Behaviour*, 51(2), pp.192-214.
- Melubo, K.D. and Musau, S., (2020). Digital Banking and Financial Inclusion of Women Enterprises in Narok County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 2(1), pp.28-41.
- Meyer, D. F. (2016). SOLUTIONS FOR ECONOMIC DEVELOPMENT IN RURAL REGIONS: THE CASE OF THE NORTHERN FREE STATE REGION. *Economic and Social Development: Book of Proceedings*, 466.
- Milagrosa, A. 2007. Institutional economic analysis of vegetable production and marketing in Northern Philippines: Social capital, institutions and governance. PhD thesis. Wageningen University
- Min, S.A. and Kim, B.Y., 2021. SMEs' Digital Transformation Competencies on Platform Empowerment: A Case Study in South Korea. *The Journal of Asian Finance, Economics and Business*, 8(6), pp.897-907.
- Mishra, K., & Sam, A. G. 2016. Does women's land ownership promote their empowerment? Empirical evidence from Nepal. *World Development*, 78, 360-371.
- Mkhize, G. and Vilakazi, F., 2021. Rethinking gender and conduits of control: A feminist review. *Image & Text*, (35), pp.1-22.

- Mmbando, F.E., 2014. *Market participation, channel choice and impacts on household welfare: the case of smallholder farmers in Tanzania* (Doctoral dissertation).
- Mmbengwa, V.M., 2009. Capacity-building strategies for sustainable farming SMMEs in South Africa. PhD agricultural economics, University of Free State, Bloemfontein, South Africa
- Mmbengwa, V., Khoza, T.M., Rambau, K. and Rakuambo, J., 2018. Assessment of the participation of smallholder farmers in agro-processing industries of Gauteng Province. *OIDA International Journal of Sustainable Development*, 11(02), pp.11-18.
- Mmbengwa, V. M., Ntili, T. P., Haines, R., Groenewald, J. A., & Van Schalkwyk, H. D. (2014). Analysis of women empowerment in South African water boards: a special reference to historically disadvantaged individuals (HDIs) in South Africa. *Gender and Behaviour*, 12(2), 6436-6448.
- Moeletsi, M. E., & Walker, S. (2012). Assessment of agricultural drought using a simple water balance model in the Free State Province of South Africa. *Theoretical and applied climatology*, 108(3-4), 425-450.
- Molakeng, M.H., 2020. *Work place adversities and resilience in a group of designated social workers in the Free State* (Doctoral dissertation, North-West University (South Africa)).
- Moreroa, M.C. and Rapanyane, M.B., 2021. A Growing Outcry of Gender-based Violence and Gender Inequality in South Africa: An Afrocentric Perspective. *African Journal of Gender, Society and Development (formerly Journal of Gender, Information and Development in Africa)*, 10(2), pp.7-24.
- Morgan, P. (1998). Capacity and capacity development-some strategies. *Hull: Canadian International Development Agency*.
- Moseiko, V.O., Korobov, S.A. and Frolov, D.P., 2015. Socio-economic systems' competitiveness assessment method. *Asian Social Science*, 11(20), p.1.

- Mukarati, J., Mongale, I. and Makombe, G., 2020. Land redistribution and the South African economy. *Agricultural Economics*, 66(1), pp.46-54.
- Mutea, E., Rist, S. and Jacobi, J., 2020. Applying the theory of access to food security among smallholder family farmers around North-West Mount Kenya. *Sustainability*, 12(5), p.1751.
- Mwangi, V., Owuor, S., Kiteme, B., Giger, M., Jacobi, J. and Kirui, O., 2020. Linking Household Food Security and Food Value Chains in North West Mt. Kenya. *Sustainability*, 12(12), p.4999.
- Nambiar, Y., Sutherland, M. and Scheepers, C.B., 2020. The stakeholder ecosystem of women entrepreneurs in South African townships. *Development Southern Africa*, 37(1), pp.70-86.
- Nanavaty, R., (2021). Women-to-Women Cooperation: Learnings from SEWA. *India–Africa Partnerships for Food Security and Capacity Building: South-South Cooperation*, pp.157-174.
- National Small Business Act 102 of 1996 amended in 2004
- Ncube, S., 2021. Rural Women, Global Value Networks and Precarity in Chirumhanzu District, Zimbabwe, 1991–2000. *Journal of Asian and African Studies*, p.0021909620952458.
- Netshipale, A.J., Oosting, S.J., Mashiloane, M.L., Van Reenen, C.G., De Boer, I.J. and Raidimi, E.N., 2020. Agriculture in land reform farms: Impact on livelihoods of beneficiaries in the Waterberg district, South Africa. *Land Use Policy*, 97, p.104710.
- Ngcaba, A., 2012. Achievements in Women Empowerment. [Retrieved online]. Available at: www.dimensiondata.com.
- Nickell, S., Nicolitsas, D. and Dryden, N., 1997. What makes firms perform well?. *European economic review*, 41(3-5), pp.783-796.

- Nieman, G. and Pretorius, M., 2004. *Managing growth: A guide for entrepreneurs*. Juta and Company Ltd.
- Nikiema, P.R., and Kponou, M.K.C., 2020. Women Empowerment in Agriculture and Children Nutritional Outcomes in Rural Burkina Faso. African Economic Research Consortium, Nairobi, Kenya.
- Njie-Carr, V., 2014. Violence experiences among HIV-infected women and perceptions of male perpetrators' roles: a concurrent mixed-method study. *Journal of the Association of Nurses in AIDS Care*, 25(5), pp.376-391.
- Njobe, B. and Kaaria, S., 2015. Women and agriculture: the untapped opportunity in the wave of transformation. *Background Paper*.
- Norese, M.F., Corazza, L., Bruschi, F. and Cisi, M., 2021. A multiple criteria approach to map ecological-inclusive business models for sustainable development. *International Journal of Sustainable Development & World Ecology*, 28(1), pp.75-91.
- Nxopo, Z., 2014. The role of government in empowering female entrepreneurs in the Western Cape, South Africa (Doctoral dissertation, Cape Peninsula University of Technology).
- Nyahunda, L., Makhubele, J.C., Mabvurira, V. and Matlakala, F.K., 2020. Vulnerabilities and inequalities experienced by women in the climate change discourse in South Africa's rural communities: implications for social work. *The British Journal of Social Work*.
- Nyam, Y. S., OJO, T., Belle, A. J., Ogundeji, A., & Adetoro, A. (2020). Analysis of profit efficiency among smallholder sheep farmers of N8 development corridor Free State, South Africa.
- Nwafor, C.U., Ogundeji, A.A. and van der Westhuizen, C., 2020. Adoption of ICT-based information sources and market participation among smallholder livestock farmers in South Africa. *Agriculture*, 10(2), p.44.

- Nwafor, C.U., 2015. *Prospects of commercialization among small scale potato farmers in Bizana* (Doctoral dissertation, Bloemfontein: Central University of Technology, Free State).
- Okech, S.H., Gaidashova, S.V., Gold, C.S., Nyagahungu, I. and Musumbu, J.T., 2005. The influence of socio-economic and marketing factors on banana production in Rwanda: Results from a Participatory Rural Appraisal. *The International Journal of Sustainable Development & World Ecology*, 12(2), pp.149-160.
- Olsson, J. (2010). Thematic paper on MDG 3: Promote gender equality and empower women. http://www.undg.org/docs/11421/MDG_3_1954-UNDG-MDG3-LR. Accessed in February 2014. United Nation Development Group.
- Olubenga A.C. and Adeoti A.I., 2011. Women participation in the collective self-help programme in Ifebu division of Ogun State, Nigeria: Determinates and challenges. *The international Journal of entrepreneurial studies* 4(1): 1-17.
- Onah, M.N., Horton, S. and Hoddinott, J., 2021. What empowerment indicators are important for food consumption for women? Evidence from 5 sub-Saharan African countries. *PloS one*, 16(4), p.e0250014.
- Ozoya, M.I., Edewor, P.A., Idowu, A.E., Chiazor, I.A., Iruonagbe, C.T., George, T.O. and Egharevba, M.E., 2017. A chronological overview of women empowerment initiatives in Nigeria. *IFE Psychologica: An International Journal*, 25(1), pp.304-317.
- Peluso, N.L. and Ribot, J., 2020. Postscript: A theory of access revisited.
- Penrose, E. and Penrose, E.T., 2009. *The Theory of the Growth of the Firm*. Oxford university press.
- Pereira, C. and Tsikata, D., 2021. Contextualising Extractivism in Africa. *Feminist Africa*, 2(1), pp.14-47.
- Peteraf, M.A., 1993. The cornerstones of competitive advantage: a resource-based view. *Strategic management journal*, 14(3), pp.179-191.

- Phakathi, S., Sinyolo, S., Marire, J. and Fraser, G., 2021. Farmer-led institutional innovations in managing smallholder irrigation schemes in KwaZulu-Natal and Eastern Cape Provinces, South Africa. *Agricultural Water Management*, 248, p.106780.
- Popkova, E., Gornostaeva, Z. and Tregulova, N., 2018. Role of innovations in provision of competitiveness and innovational development of economy and overcoming of “underdevelopment whirlpools” in Russia and countries of Eastern Europe. *Journal of Entrepreneurship in Emerging Economies*.
- Porter, M.E., 1985. Technology and competitive advantage. *Journal of business strategy*.
- Prasetyo, I., Endarti, E.W., Endarto, B., Aliyyah, N., Tjaraka, H., Kalbuana, N. and Rochman, A.S.U., 2021. Effect of Compensation and Discipline on Employee Performance: A Case Study Indonesia. *Journal of Hunan University Natural Sciences*, 48(6).
- Purchase, J., 2015. Agbiz column: ANC policy discussion document for NGC: perspectives on agriculture and the agro-food system: agribusiness update. *FarmBiz*, 1(8), pp.12-13.
- Putnam, R.D., 2000. *Bowling alone: The collapse and revival of American community*. Simon and Schuster.
- Quisumbing, A.R., Kumar, N., Meinzen-Dick, R.S. and Ringler, C., 2020. Why gender matters in COVID-19 responses: Now and in the future. *IFPRI book chapters*, pp.88-90.
- Reardon, T., Tschirley, D., Minten, B., Haggblade, S., Liverpool-Tasie, S., Dolislager, M., Snyder, J. and Ijumba, C., 2015. Transformation of African agrifood systems in the new era of rapid urbanization and the emergence of a middle class. *Beyond a middle-income Africa: Transforming African economies for sustained growth with rising employment and incomes*, pp.62-74.

- Rossi, M., Vrontis, D. and Thrassou, A., 2014. Agro business in a changing competitive environment—Campania firms' strategic, marketing and financial choices. *World Review of Entrepreneurship, Management and Sustainable Development* 5, 10(2-3), pp.312-333.
- Rudhumbu, N., du Plessis, E.E. and Maphosa, C., 2020. Challenges and opportunities for women entrepreneurs in Botswana: revisiting the role of entrepreneurship education. *Journal of International Education in Business*.
- Rumelt, R.P., 2012. Good strategy/bad strategy: The difference and why it matters. *Strategic direction*, 28(8).
- Safari, A., Adelpnah, A., Soleimani, R., Aqagoli, P.H., Eidizadeh, R. and Salehzadeh, R., 2020. The effect of psychological empowerment on job burnout and competitive advantage: The mediating role of organizational commitment and creativity. *Management Research: Journal of the Iberoamerican Academy of Management*.
- Saka, L. and Adebisi, O.M., 2021. Women, Land Dispossession and Agricultural Production in South-East Nigeria: An Eco-Feminism Perspective. *African Journal on Land Policy and Geospatial Sciences*, 4(3), pp.423-436.
- Salunke, S., Weerawardena, J. and McColl-Kennedy, J.R., 2019. The central role of knowledge integration capability in service innovation-based competitive strategy. *Industrial Marketing Management*, 76, pp.144-156.
- Sands, L.M., 2022. *How learning stories shape understandings of children's learning identities in one community of practice: A narrative inquiry* (Doctoral dissertation, The University of Waikato).
- Saunders, K.J. and Rennie, L.J., 2013. A pedagogical model for ethical inquiry into socioscientific issues in science. *Research in Science Education*, 43(1), pp.253-274.

- Saunders M. Lewis P and Thornhill A., 2016. Research methods for business students. 7th Edition. Harlow, United Kingdom. Pearson professional Limited. 1-150.
- Schreiner, J., 2017. Lessons on the struggle for women's emancipation. The October revolution. *African communist*. 196(4): 75-91.
- Sedliacikova, M., Moresova, M., Alac, P. and Drabek, J., 2021. How Do Behavioral Aspects Affect the Financial Decisions of Managers and the Competitiveness of Enterprises?. *Journal of Competitiveness*, 13, pp.99-116.
- Seers, K., 2012. Qualitative data analysis. *Evidence-based nursing*, 15(1), pp.2-2.
- Shackleton, S., Paumgarten, F., Kassa, H., Husselman, M. and Zida, M., 2011. Opportunities for enhancing poor women's socioeconomic empowerment in the value chains of three African non-timber forest products (NTFPs). *International Forestry Review*, 13(2), pp.136-151.
- Shahbaz, B., Naz, M., Umber, S. and Amir, R.M., 2017. Determinants of women's empowerment and poverty reduction: a case study of rural Faisalabad, Punjab. *Pakistan Journal of Agricultural Sciences*, 54(1).
- Sharma, E. and Das, S., 2021. Integrated model for women empowerment in rural India. *Journal of International Development*, 33(3), pp.594-611.
- Shilimi, M.C., 2021. Examining Challenges Leading to Low Integration of Savings and Credit Co-Operative Societies (SACCOs) in National Economies: A Study of Zambia. *Open Journal of Business and Management*, 9(3), pp.1338-1366.
- Shrestha, N., 2021. Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), pp.4-11.
- Sikwela, M.M., 2013. *The impact of farmer support programmes on market access of smallholder farmers in the Eastern Cape and KwaZulu-Natal provinces, South Africa* (Doctoral dissertation, University of Fort Hare).

- Sinyolo, S., Mudhara, M. and Wale, E., 2017. The impact of social grant dependency on smallholder maize producers' market participation in South Africa: Application of the double-hurdle model. *South African Journal of Economic and Management Sciences*, 20(1), pp.1-10.
- Siudek, T. and Zawojcka, A., 2014. Competitiveness in the economic concepts, theories and empirical research. *Acta Scientiarum Polonorum. Oeconomia*, 13(1).
- Skinner, C., 2005. *Constraints to growth and employment in Durban: Evidence from the informal economy*. School of Development Studies, University of KwaZulu-Natal.
- Sraboni, E., Malapit, H.J., Quisumbing, A.R. and Ahmed, A.U., 2014. Women's empowerment in agriculture: what role for food security in Bangladesh? *World Development*, 61, pp.11-52.
- STATS SA 2007a. *Income and Expenditure of Households 2005*. Pretoria: Statistics South Africa
- Stats, S. A. 2011. Statistics South Africa. *Formal census*.
- Stats, S.A., 2014. Employment, unemployment, skills and economic growth: An exploration of household survey evidence on skills development and unemployment between 1994 and 2014. *Pretoria: Statistic South Africa*.
- Subiyantoro, K., Sagir, I.P., Herwany, A. and Febrian, E., 2020. Competitive Strategy Model And Its Impact On Micro Business Unit Of Local Development Banks In Jawa. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(4), pp.470-484.
- Sullivan, W.M., 1986. *Reconstructing public philosophy*. University of California Press.
- Sustainable Livelihoods Foundation. 2015. <http://livelihoods.org.za/wp-content/uploads/2015/05/The-Informal-Economy-of-Township-Spaza-Shops> (Accessed 28 September 2018)

- Swanepoel, J.W., Van Niekerk, J.A. and Tirivanhu, P., 2021. Analysing the contribution of urban agriculture towards urban household food security in informal settlement areas. *Development Southern Africa*, pp.1-14.
- Tamako, N., 2020. *Exploring agricultural knowledge systems and smallholder farmers empowerment: implication on household food security* (Doctoral dissertation).
- 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.
- Tanumihardjo, S.A., McCulley, L., Roh, R., Lopez-Ridaura, S., Palacios-Rojas, N. and Gunaratna, N.S., 2020. Maize agro-food systems to ensure food and nutrition security in reference to the Sustainable Development Goals. *Global Food Security*, 25, p.100327.
- Taylor, C., 1995. *Philosophical arguments*. Harvard University Press.
- Tellis, W., 1997. Application of a case study methodology. *The qualitative report*, 3(3), pp.1-19.
- Tesfay, G.B., and Abidoye, B.O., 2020. Women Empowerment in Agriculture and Child Nutrition: Evidence from Ethiopia.
- Thankian, K., 2020. Factors Affecting Women's Autonomy in Household Decision-Making among Married Women in Zambia. *Journal of Scientific Research and Reports*, pp.109-123.
- Timmons, J. and Spinelli, S., 1990. *New Venture Creation: Entrepreneurship for the XXI century*.
- Timmons, J.A., Spinelli, S. and Tan, Y., 2004. *New venture creation: Entrepreneurship for the 21st century* (Vol. 6). New York: McGraw-Hill/Irwin.

- Tiwari, R.K., 2018. Empowering women through agricultural extension: a global perspective. *Indian Rural Market: Opportunity and Challenges in the Global Context*, 1(1), pp.68-75.
- THAHER, L.M., RADIEAH, N.M. and WAN NORHANIZA, W.H., 2021. The Effect of Microfinance Services on Women Entrepreneurship: A Case Study in Jordan. *The Journal of Asian Finance, Economics and Business*, 8(5), pp.807-815.
- The Constitution of the Republic of South Africa, 1996:5-6
- Ministry of Agriculture and Land Affairs, 2000. An integrated programme for land redistribution and agricultural development in South Africa. *Draft Discussion Document and Final Draft Document*.
- The Reconstruction and Development Programme (RDP), 1993. A Policy Framework. Pretoria. RSA.
- Trim, P.R. and Lee, Y.I., 2008. A strategic marketing intelligence and multi-organisational resilience framework. *European Journal of Marketing*.
- Tung, M.S. and Tri, H.M., 2022. Transformative education as an orientation for sustainable development of higher education in Vietnam: an exploratory study. *HO CHI MINH CITY OPEN UNIVERSITY JOURNAL OF SCIENCE-SOCIAL SCIENCES*, 12(2).
- Tustin, D.H., Ligthelm, A.A., Martins, J.H. and van Wyk, H. 2010. Marketing Research. University of South Africa (UNISA). Unisa Press, Pretoria.
- Ulandari, Z. and Dahlan, F., 2021. The resistance of women toward patriarchal culture in the testaments by Margaret Atwood. *Abstract of Undergraduate Research, Faculty of Humanities, Bung Hatta University*, 1(2).
- United Nations, 2017. The Sustainable Development Goals Report, 2017. United Nations, New York, NY.

- Uwineza, O., Lagat, J. and Berem, R.M., 2021. THE ROLE OF WOMEN EMPOWERMENT IN AGRICULTURE ON HOUSEHOLD FARM COMMERCIALIZATION OF MAIZE, POTATOES AND BEANS IN NORTHERN PROVINCE OF RWANDA. *Journal of Agribusiness and Rural Development*, 59(1), pp.117-125.
- Vaismoradi, M., Turunen, H. and Bondas, T., 2013. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, 15(3), pp.398-405.
- Van Dijk, H.G. and Nkwana, H.M., 2021. The Face of Food Insecurity is Female: A Post-Colonial Feminist Argument for Rural Women. *African Journal of Gender, Society and Development (formerly Journal of Gender, Information and Development in Africa)*, 10(1), pp.99-116.
- Venter, C., 2020. Land reform: a package deal?. *FarmBiz*, 6(1), pp.11-13.
- Walsh, C.M. and Van Rooyen, F.C., 2015. Household food security and hunger in rural and urban communities in the Free State Province, South Africa. *Ecology of food and nutrition*, 54(2), pp.118-137.
- Wang, Y.A. and Rhemtulla, M., 2021. Power analysis for parameter estimation in structural equation modeling: A discussion and tutorial. *Advances in Methods and Practices in Psychological Science*, 4(1), p.2515245920918253.
- Weed, D.L., 1995. Epidemiology, the humanities, and public health. *American Journal of Public Health*, 85(7), pp.914-918.
- Wickham, P.A., 2006. *Strategic entrepreneurship*. Pearson Education.
- Will, M., Groeneveld, J., Frank, K. and Müller, B., 2021. Informal risk-sharing between smallholders may be threatened by formal insurance: Lessons from a stylized agent-based model. *PLoS one*, 16(3), p.e0248757.
- Wortmann-Kolundzija, E., 2019. Empowering Smallholder Farmers through Farmer Organizations: Insights from Kenya and Burkina Faso. *Available at SSRN 3498199*.

Yin, R.K., 1994. Discovering the future of the case study. Method in evaluation research. *Evaluation practice*, 15(3), pp.283-290.

Yin, R.K. 2009. Qualitative Research from Start to Finish. The Guilford Press, New York, London.

Zereyesus, Y.A., Amanor-Boadu, V., Ross, K.L. and Shanoyan, A., 2017. Does women's empowerment in agriculture matter for children's health status? Insights from Northern Ghana. *Social indicators research*, 132(3), pp.1265-1280.

APPENDIX

APPENDIX A.1: QUESTIONNAIRE, ENGLISH

WOMEN AGRO-FOOD ENTERPRISES - FS PROVINCE QUESTIONNAIRE

Questionnaire number

Project Name:

A. BIOGRAPHIC INFORMATION

A1. Please indicate your age (in years).

--

A2. Indicate your tribe.

English	1	
Sotho	2	
Zulu	3	
Tswana	4	
Afrikaans	5	
Xhosa	6	
Others	7	

A3. Indicate your district/metropolitan municipalities.

Fezile Dabi District Municipality	1	
Lejweleputswa District Municipality	2	
Mangaung Metropolitan Municipality	3	
Thabo Mofutsanyana District Municipality	4	
Xhariep District Municipality	5	

A4. Please indicate your agro-food products.

Vegetables	1	
Livestock	2	
Horticulture	3	
Grains	4	
Processed	5	

A5. Please indicate your sector.

Smallholder Farmer	1	
Hawker	2	
Spaza owner	3	

A6. Please indicate your educational achievements.

Primary	1	
Secondary	2	
certificates	3	
Diploma	4	
Degree	5	
Post-graduate degree (Hon, M & D)	6	
None	7	

A7. What is your educational background?

Agriculture	1	
Science	2	
Commerce	3	

Engineering	4	
Humanities	5	
Medicine	6	
None	7	

A8. Please indicate your business experience (in years).

A9. Please indicate your sales experience (in years).

B. STATUS OF TRANSFORMATION

B0: Are you aware of any transformational initiatives?

Yes	1	No	0
-----	---	----	---

B1: Do you think these initiatives are for your benefit?

Yes	1	No	2	Uncertain	3
-----	---	----	---	-----------	---

B2: Rate the importance of the following indicators of transformation:

Not Important Extremely important

B2.1: Transformation...is transformation important in promoting women agro-food enterprises?	1	2	3	4	5	6	7
B2.2: Ownership of business...is ownership important in promoting women agro-food enterprises?	1	2	3	4	5	6	7
B2.3: Management/control...is management control important in promoting women agro-food enterprises?	1	2	3	4	5	6	7
B2.4: Access to market...is market access important in promoting women agro-food enterprises?	1	2	3	4	5	6	7
B2.5: Representative...is representation important in promoting women agro-food enterprises?	1	2	3	4	5	6	7

C. CAPACITY BUILDING

C0: Have you received accredited training?

Yes	1	No	0
-----	---	----	---

C1: Do you think training could help your business grow?

Yes	1	No	2	Uncertain	3
-----	---	----	---	-----------	---

C2: Indicate whether these capacity-building activities need improvement or not by rating them.

No Improvements More Improvements

C2.1: Capacity building skills...do capacity building skills need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.2: Technical skills...do technical skills need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.3: Managerial skills...do management skills need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.4: Financial skills...do financial skills need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.5: Security (safeguarding)...does security need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.6: Accounting (record keeping) ...does accounting need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.7: Employment equity...does employment equity need improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7
C2.8: Mentorship...does mentorship needs improvement in agro-food enterprises in your business?	1	2	3	4	5	6	7

D. ENTREPRENEURSHIP

D0: Do you think entrepreneurship skills could affect your business?

Yes	1	No	0
-----	---	----	---

D1: Do you agree that entrepreneurship skills could improve your business?

Yes	1	No	2	Uncertain	3
-----	---	----	---	-----------	---

D2: Provide your honest opinion by confirming the importance or none; therefore, by rating these entrepreneurship factors as not important or extremely important.

Not important Extremely important

D2.1: Entrepreneurship skills ...are entrepreneurial skills important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.2: Creativity....is creativity important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.3: Leadership...is leadership important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.4: Enterprise development...is enterprise development important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.5: Risk-taking...is risk-taking important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.6: Incubation... is incubation important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.7: Food security...is food security important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.8: Poverty alleviation...is poverty alleviation important for women agro-food enterprises?	1	2	3	4	5	6	7
D2.9. Financial access...is financial access important for women agro-food enterprises?	1	2	3	4	5	6	7

E. EMPOWERMENT

E0: Do you think empowerment programs could affect your business?

Yes	1	No	0
-----	---	----	---

E1: Do you agree that empowerment could improve your business?

Yes	1	No	2	Uncertain	3
-----	---	----	---	-----------	---

E2: Provide your honest opinion by confirming the importance or none; therefore, by rating these entrepreneurship factors as not important or extremely important.

Not important Extremely important

E2.1: Empowerment ...is empowerment programme important in women agro-food enterprises?	1	2	3	4	5	6	7
E2.2: Grant funding...is grant funding programme important in women agro-food enterprises?	1	2	3	4	5	6	7
E2.3: Equity... is equity programme important in women agro-food enterprises?	1	2	3	4	5	6	7
E2.4: Savings...is the savings programme important in women agro-food enterprises?	1	2	3	4	5	6	7
E2.5: Infrastructure...is infrastructure programme important in women agro-food enterprises?	1	2	3	4	5	6	7
E2.6: Investment... is an investment programme important in women agro-food enterprises?	1	2	3	4	5	6	7

F. COMPETITIVENESS

Please evaluate on a scale of 1-7 the factors that could help improve your farm enterprise's income.

No Improvements More improvements

F1: Business competitiveness ..does your business competitiveness needs improvement?	1	2	3	4	5	6	7
F2: Unique service features as a volume of production... does your unique service feature need improvement?	1	2	3	4	5	6	7
F3: Price or value...does your price needs improvement?	1	2	3	4	5	6	7
F4: Customer convenience...does your customer convenience needs improvement?	1	2	3	4	5	6	7
F5: Customer experiences...does customer experiences need improvement?	1	2	3	4	5	6	7
F6: Notable product attributes as product quality...does a notable product attribute as product quality needs improvement?	1	2	3	4	5	6	7

G. INDICATORS AFFECTING THE EFFECTIVENESS OF WOMEN AGRO-ENTERPRISES

Please evaluate on a scale of 1-7 the factors that could help improve women agro-enterprises' effectiveness in your locality.

Not Effective

Extremely Effective

Production							
G1: Production Input...does input in productive decision-making makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G2: Autonomous Production...does autonomy in production makes women effective in agro-enterprises?	1	2	3	4	5	6	7
Resources							
G3: Ownership of assets...does ownership of assets make women effective in agro-enterprises?	1	2	3	4	5	6	7
G4: Financial transactions...does the ability to purchase or transfer assets makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G5: Access to credit...does access to credit makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G6: Management control ...does management control makes women effective in agro-enterprises?	1	2	3	4	5	6	7
Capacity Building							
G7: Employment Equity...does employment equity practices make women effective in agro-enterprises?	1	2	3	4	5	6	7
G8: Literacy.... does literacy make women effective in agro-enterprises?	1	2	3	4	5	6	7
G9: Skills development...does skills development makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G10: Education...does educational achievements make women effective in agro-enterprises?	1	2	3	4	5	6	7
Entrepreneurship							
G11: Enterprise development... does enterprise development makes women effective in agro-enterprises?	1	2	3	4	5	6	7

G12: Income.... does control over the use of income makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G13: Poverty alleviation....does the reduction of poverty makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G14: Leadership...does access to leadership position makes women effective in agro-enterprises?	1	2	3	4	5	6	7
G15: Workload...does the reduction of workload makes women effective in agro-enterprises?	1	2	3	4	5	6	7

THANK YOU VERY MUCH

APPENDIX A.2: QUESTIONNAIRE, SESOTHO

DIKGWEBO TSA BASADI DIJONG TSA TEMO – PROFENSING YA FREISTATA

DIPOTSO

Nomoro ya lenane la Dipotso.....

Lebitso la Projeke:

A. TLHAHISOLESEDING MABAPI LE BOITSIBISO

A1. Ka kopo fana ka dilemo tsa hao ka botlalo

--

A2. Tshwaya morabe wa hao

Lenyesemane	1	
Mosotho	2	
Mozulu	3	
Motswana	4	
Moafrikaans	5	
Moxhosa	6	
Tse ding	7	

A3. Tshwaya setereke/metropolitan wa hao

Fezile Dabi District Municipality	1	
Lejweleputswa District Municipality	2	
Mangaung Metropolitan Municipality	3	
Thabo Mofutsanyana District Municipality	4	
Xhariep District Municipality	5	

A4. Tshwaya dihlahiswa tsa dijo-temo tsa hao

Meroho	1	
Diphoofolo	2	
Ditholoana	3	
Dijo-thollo	4	
Dijo tse sebeditsweng	5	

A5. Tshwaya lekala la kgwebo.

Sehoai se senyenyane	1	
Morekisi wa seterateng	2	
Monga lebenkele-spaza	3	

Thuto ya Primary (mathomo)	1	
Thuto ya Secondary (mahareng)	2	

A6. Tshwaya katleho ya thuto?

Setifikeiti	3	
Diploma	4	
Degree	5	
Thupelo e ka hodimo ho diploma kapa degree (Hon, M & D)	6	
Ha hona thuto ya sekolo	7	

A7. Semelo sa hao sa thuto ke sefe?

Thuto ya Temo	1	
Thuto ya Mahlale	2	
Thuto ya Kgwebo	3	
Thuto ya Boenjiniere	4	
Thuto ya Botho	5	
Thuto ya Bongaka	6	
Ha kena thuto	7	

A8. Ka kopo fana ka boiphihlelo ba hao ba kgwebo (ka dilemo)

A9. Ka kopo fana ka boiphihlelo ba hao ba thekiso (ka dilemo)

B. BOEMO BA DIPHETOHO

B0: Na o tseba ka matsapa afe kapa afe a ho tliša diphetoho?

Eya	1	Tjhe	0
-----	---	------	---

B1: Na o nahana hore matsapa a a tla o tswela molemo?

Eya	1	Tjhe	2	Ha ke na Bonnete	3
-----	---	------	---	------------------	---

B2: Lekanya bohlokwa ba matshwao a latelang a diphetoho:

	Ha e Bohlokwa				E Bohlokwa Haholo			
	1	2	3	4	5	6	7	
B2.1: Phetoho...na phetoho e bohlokwa ntshetsopeleng ya dikgwebo tsa basadi tsa dijo-temo?								
B2.2: Ho ba monga kgwebo...na ho ba monga kgwebo ho bohlokwa phahamisong ya dikghwebo tsa basadi tsa dijo-temo?								
B2.3: Tsamaiso/taolo...na tsamaiso le taolo ya kgwebo e bohlokwa ho phahamisa dikgwebo tsa basadi tsa dijo-temo?								
B2.4: Phumano ya mmaraka...na phihlelo ya mmaraka e bohlokwa ho phahamisa dikgwebo tsa basadi tsa dijo-temo?								
B2.5: Boemedi...na boemedi bo bohlokwa ho phahamisa dikgwebo tsa basadi tsa dijo-temo?								

C. KAHO YA BOKGONI

C0: Na o fumane thupello e ngodisitsong ka molao?

Eya	1	Tjhe	0
-----	---	------	---

C1: O nahana hore thupello e ka thusa kgwebo ya hao ho hola?

Eya	1	Tjhe	2	Ha ke na Bonnete	3
-----	---	------	---	------------------	---

C2: Tshwaya hore na mesebetsi ee ya ho aha bokgoni e hloka ntlafatso kapa tjhe ka ho e lekanya

Ha ho Ntlafatso

Keketseho ya Ntlafatso

C2.1: Tsebo ya ho aha bokgoni ...na tsebo ya ho aha boiphihlelo e hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.2: Mahlale a botekgeniki...na tsebo ya Mahlale a botekgeniki a hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.3: Bokgoni ba tsamaiso...na tsebo ya botsamaisi e hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.4: Tsebo ya ditjhelete...na tsebo ya ditjhelete e hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.5: Tshireletso (sireletsa)...na tshireletso e hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.6: Boikarabello (ho boloka rekoto) ...na boikarabello dibukeng bo hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.7: Tekano ya mesebetsi...na tekatekano ya mesebetsi e hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7
C2.8: Boeletsu-kwetliso...na boeletsu-kwetliso bo hloka ntlafatso kgwebong ya hao ya dijo-temo?	1	2	3	4	5	6	7

D. KGWEBO

D0: Na o nahana hore tsebo ya ho etsa kgwebo e ka ama kgwebo ya hao?

Eya	1	Tjhe	0
-----	---	------	---

D1: Na o dumela hore bokgoni ba ho etsa kgwebo bo ka ntlafatsa kgwebo ya hao?

Eya	1	Tjhe	2	Ha ke na Bonnete	3
-----	---	------	---	------------------	---

D2: Fana ka maikutlo a hao a tshepahalang ka ho tiisa bohlokwa kapa ho sebeng jwalo ka ho lekanya lintlha tse na tsa bo-rakhoebo e se tsa bohlokwa kapa e le tsa bohlokwa haholo.

Ha e Bohlokwa

E Bohlokwa Haholo

D2.1: Tsebo ya kgwebo ... Na ditsebo tsa bo-rakgwebo ke tsa bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.2: Boqapi.... Na boqapi bo bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.3: Boetapele ... na boetapele bo bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.4: Ntlafatso ya dikgwebo... na ntshetsopeleng ya dikgwebo e bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.5: Ho ipeha kotsing ... na ho ipeha kotsing ho bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.6: Tlhokomelo le tataiso... na tlhokomelo le tataiso e bohlokwa kgwebong ya basadi ba dijo-temo?	1	2	3	4	5	6	7
D2.7: Tshireletso ya dijo ... na tshireletso ya dijo e bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.8: Phokotso ya bofutsana... na phokotso ya bofuma e bohlokwa bakeng sa dikgwebo tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7
D2.9. Phumano ya ditjhelete ... na phihlelo ya ditjhelete ke ya bohlokwa kgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7

E. MATLAFATSO

E0: O nahana hore mananeo a matlafatso a ka ama kgwebo ya hao?

Eya	1	Tjhe	0
-----	---	------	---

E1: Na u dumela hore matlafatso e ka ntlafatsa kgwebo ya hao?

Eya	1	Tjhe	2	Ha ke na Bonnete	3
-----	---	------	---	------------------	---

E2: Fana ka maikutlo a hao a tšepahalang ka ho tiisa bohlokwa kapa ho sebeng joalo ka ho lekanya lintlha tsena tsa bo-rakhoebo e se tsa bohlokwa kapa e le tsa bohlokwa haholo.

	Ha e Bohlokwa				E Bohlokwa Haholo			
E2.1: Matlafatso... na lenaneo la matlafatso le bohlokwa dikgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7	
E2.2: Dithuso tsa ditjhelete.... na lenaneo la dithuso tsa ditjhelete le bohlokwa dikgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7	
E2.3: Tekatekano... na lenaneo la tekano ke la bohlokwa dikgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7	
E2.4: Poloko... na lenaneo la ho boloka tjhelete ke la bohlokwa dikgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7	
E2.5: Ditshebeletso tsa motheo... na lenaneo la meralo ya ts'ebetso ya mantlha le bohlokwa dikgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7	
E2.6: Tjhelete ya matsete ... na lenaneo la matsete ke la bohlokwa dikgwebong tsa basadi tsa dijo-temo?	1	2	3	4	5	6	7	

F. TLHODISANO

Ka kopo lekola ka tekanyo ya 1 ho isa ho 7 dintlha tse ka thusang ho ntlafatsa tjhelete e kenang kgwebong ya hao ya dijo-temo

Ha e Bohlokwa E Bohlokwa Haholo

F1: Tlhodisano kgwebong ... na tlholisano ya hao ya kgwebo e hloka ntlafatso?	1	2	3	4	5	6	7
F2: Ditshebeletso tse ikhethileng tsa bophahamo ba tlhahiso ... na dikarolo tsa hao tse ikhethang tsa tshebetso di hloka ntlafatso?	1	2	3	4	5	6	7
F3: Theko kapa boleng... na theko ya hao e hloka ntlafatso?	1	2	3	4	5	6	7
F4: Bonolo bakeng sa moreki ... na bonolo ba ho fumaneha ho bareki ba hao bo hloka ntlafatso?	1	2	3	4	5	6	7
F5: Boiphihlelo ba moreki... na phihlelo tsa bareki di hloka ntlafatso?	1	2	3	4	5	6	7

F6: Ditshwaneleho tse ikhethang tsa sehlahiswa jwalo ka boleng ba sehlahiswa... na ditshobotsi tse bonahalang tsa sehlahiswa e le boleng ba sehlahiswa se hloka ntlafatso?	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

G. MATSHWAO A AMANG HO SEBETSA HANTLE HA BASADI BA DIKGWEBO TSA DIJO-TEMO

Ka kopo lekola ka tekanyo ya 1 ho isa ho 7 dintlha tse ka thusang ho ntlafatsa tshebetso ya basadi dikgwebong tsa bona tikolohong ya heno

Ha e Sebetse E Sebetsa Hantle Haholo

Tlhahiso							
G1: Disebelisoa tsa tlhahiso... na ho kenya letsoho ha ho nkwa diqeto tsa tlhahiso ho etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G2: Boikemelo Dihlahisweng...na boikemelo ho tsa tlhahiso bo etsa basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
Disebediswa							
G3: Ho ba monga thepa ... na ho ba le thepa ho etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G4: Phetisetso ya Ditjhelete... na bokgoni ba ho reka kapa ho fetisetsa thepa bo etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G5: Phumantsho ya mokitlane ... na phihlello ya sekoloto e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G6: Taolo ya tsamaiso... na taolo ya tsamaiso e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
Kaho Ya Bokgoni							
G7: Tekano ya mesebetsi... na mekgwa ya tekano ya mesebetsi e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G8: Tsebo ya ho bala le ho ngola.... na tsebo ya ho bala le ho ngola e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7

G9: Ntshetsopele ya Bokgoni... na ntlafatso ya bokgoni e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G10: Thuto... na katleho thutong e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
Kgwebo							
G11: Ntshetsopele ya kgwebo... na ntshetsopele ya kgwebo e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G12: Tjhelete e kenang....na taolo ya tshebediso ya tjhelete e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G13: Phokotso ya bofutsana... na phokotso ya bofuma e etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G14: Boetapele ... na ho fihlella maemo a boetapele ho etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7
G15: Mojaro wa Mosebetsi... na phokotso ya mojaro wa mesebetsi o etsa hore basadi ba atlehe dikgwebong tsa dijo-temo?	1	2	3	4	5	6	7

KE LEBOHA HAHOLO

APPENDIX B: TURNITIN REPORT

20220306 Similarity Corrections
Dan Mosia Final Accepted
Corrections

by Diau Mosia

Submission date: 07-Mar-2022 05:43AM (UTC+0200)

Submission ID: 1765327726

File name: Similarity_Corrections_Dan_Mosia_Final-Accepted_Corrections.docx (1.06M)

Word count: 30719

Character count: 181703

A COMPETITIVE STRATEGY FOR SMALLHOLDER WOMEN IN THE AGRO-FOOD INDUSTRY IN THE FREE STATE PROVINCE

Date: February 2022

Bloemfontein

20220306 Similarity Corrections Dan Mosia Final Accepted
Corrections

ORIGINALITY REPORT

12%

SIMILARITY INDEX

10%

INTERNET SOURCES

6%

PUBLICATIONS

3%

STUDENT PAPERS

Dr Jan Swanepoel-Co Supervisor (UFS staff member)

051 401 2163

Professor Victor Mmbengwa -Supervisor

072 831 3678

WHAT IS THE AIM / PURPOSE OF THE STUDY?

The aim of the study is to develop strategies that could be instrumental in the empowerment of women to improve their competitiveness in the smallholder agro-food market in the Free State Province. Very little is known about the competitive advantage and the impact of empowerment on smallholder women agro-food enterprises in the Free state. The study will provide a conceptual model that can be used in resource allocation by policymakers, academics, and business practitioners.

WHO IS DOING THE RESEARCH?

Diau Daniel Mosia will be doing the study, and as a commercial farmer (cattle and crops) in the Free State Province, I also got involved in the commercialisation of black emerging farmers through the Department of Rural Development and Land Reform.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has applied for approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher before the commencement of data collection.

Approval number: UFS-HSD2019/0068

WHY ARE YOUR INSTITUTION/ORGANISATION/COMPANY INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

To participate in the study, the individual must be 18 years or above conducting her business as a farmer, hawker or spaza-shop owner in any of the 4 (four) district municipalities or the Mangaung Metropolitan Municipality of the Free State Province. As a woman in the agro-food industry, she is in an ideal position to give us valuable first-hand information from her own experience about her enterprise and related industry matters. Approximately 852 participants will take part in this study.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The study involves questionnaires and focus groups, whereby we will ask some questions about the commercialisation of the agro-food enterprise. The interview questionnaires and focus group sessions will take about 30-45 minutes. The questionnaire will ask about opinions and current practices about their enterprise. Their views and experience are just what the project is interested in exploring.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

Although the participant will not benefit directly from the study, the results of the study will enable us to substantially help to improve the smallholder women agro-food enterprises to be commercially viable and competitive. The study will further provide a conceptual model that can be used in resource allocation by policymakers, academics and business practitioners.

WHAT ARE THE POTENTIAL RISKS TAKING PART IN THIS STUDY?

Participating in the research is not anticipated to cause the participant any disadvantages or discomfort. There is no potential physical or psychological harm or distress that is expected during the study period.

WILL THE INFORMATION BE KEPT CONFIDENTIAL?

Any information collected during the study will be kept confidential, and access will be restricted to people conducting the study. The names of the participants will not be

disclosed, nor will details of their answers be given to anyone. The responses of the participants to the questions will be kept confidential. Each interview will be assigned a number code to help ensure that personal identifiers are not revealed during the analysis and write up of findings.

HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The researcher will store hard copies of the respondent's answers for five years in a locked cupboard/filing cabinet in the archive storage place for future research or academic purposes; electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

WILL THERE BE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There is no compensation for participating in this study. However, participation in the study will be a valuable addition to our research and findings could assist in improving the smallholder women agro-food enterprises to be commercially viable and competitive.

HOW WILL THE INSTITUTION / ORGANISATION / COMPANY BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

Results of the research will be published. Participants will not be identified in any report or publication. Their institution will not be identified in any report or publication. If the participants wish to be given a copy of any reports resulting from the research, they can ask us to put them on our circulation list.

I look forward to your favourable consideration of the request.

Sincerely

D. D Mosia

APPENDIX C.2: REQUEST FOR CONSENT



REQUEST FOR PERMISSION TO CONDUCT RESEARCH AND ACCESS INFORMATION ABOUT PARTICIPANTS

The Head of Department

Free State Department: Economic, Small Business Development, Tourism and Environmental Affairs
113 St Andrews Street
Bloemfontein
9301

Dear *Dr Nokwetu*

I will be conducting a research study and therefore would like to request the contact details of smallholder women farmers in the agro-food industry in order to contact them and possibly include them in the study. The study will be taking a sample from farms and enterprises from the 4 (four) District Municipalities and the 1 (one) Metropolitan Municipality of the Free State Province.

DATE

17 December 2019 to 13 March 2020

TITLE OF THE RESEARCH PROJECT

A competitive strategy for smallholder women in the agro-food industry in the Free State Province.

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Diau Daniel Mosia

2001115134

082 901 9653

FACULTY AND DEPARTMENT:

Faculty of Economic and Management Sciences
Business School Department

STUDY LEADER(S) NAME AND CONTACT NUMBER:



Dr Jan Swanepoel-Co Supervisor (UFS staff member)

051 401 2163

Professor Victor Mmbengwa -Supervisor

072 831 3678

WHAT IS THE AIM / PURPOSE OF THE STUDY?

The aim of the study is to develop strategies that could be instrumental in the empowerment of women to improve their competitiveness in the smallholder agro-food market in the Free State Province. Very little is known about the competitive advantage and the impact of empowerment on smallholder women agro-food enterprises in the Free state. The study will provide a conceptual model that can be used in resource allocation by policymakers, academics, and business practitioners.

WHO IS DOING THE RESEARCH?

Diau Daniel Mosia will be doing the study, and as a commercial farmer (cattle and crops) in the Free State Province, I also got involved in the commercialisation of black emerging farmers through the Department of Rural Development and Land Reform.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has applied for approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher before the commencement of data collection.

Approval number: UFS-HSD2019/0068

WHY ARE YOUR INSTITUTION/ORGANISATION/COMPANY INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

To participate in the study, the individual must be 18 years or above conducting her business as a farmer, hawker or spaza-shop owner in any of the 4 (four) district municipalities or the Mangaung Metropolitan Municipality of the Free State Province. As a woman in the agro-food industry, she is in an ideal position to give us valuable first-hand information from her own experience about her enterprise and related industry matters. Approximately 852 participants will take part in this study.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The study involves questionnaires and focus groups, whereby we will ask some questions about the commercialisation of the agro-food enterprise. The interview questionnaires and focus group sessions will take about 30-45 minutes. The questionnaire will ask about opinions and current practices about their enterprise. Their views and experience are just what the project is interested in exploring.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

Although the participant will not benefit directly from the study, the results of the study will enable us to substantially help to improve the smallholder women agro-food enterprises to be commercially viable and competitive. The study will further provide a conceptual model that can be used in resource allocation by policymakers, academics and business practitioners.

WHAT ARE THE POTENTIAL RISKS TAKING PART IN THIS STUDY?

Participating in the research is not anticipated to cause the participant any disadvantages or discomfort. There is no potential physical or psychological harm or distress that is expected during the study period.

WILL THE INFORMATION BE KEPT CONFIDENTIAL?

Any information collected during the study will be kept confidential, and access will be restricted to people conducting the study. The names of the participants will not be

disclosed, nor will details of their answers be given to anyone. The responses of the participants to the questions will be kept confidential. Each interview will be assigned a number code to help ensure that personal identifiers are not revealed during the analysis and write up of findings.

HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The researcher will store hard copies of the respondent's answers for five years in a locked cupboard/filing cabinet in the archive storage place for future research or academic purposes; electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

WILL THERE BE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There is no compensation for participating in this study. However, participation in the study will be a valuable addition to our research and findings could assist in improving the smallholder women agro-food enterprises to be commercially viable and competitive.

HOW WILL THE INSTITUTION / ORGANISATION / COMPANY BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

Results of the research will be published. Participants will not be identified in any report or publication. Their institution will not be identified in any report or publication. If the participants wish to be given a copy of any reports resulting from the research, they can ask us to put them on our circulation list.

I look forward to your favourable consideration of the request.

Sincerely

D. D Mosia

APPENDIX D: LANGUAGE EDITING LETTER

Reg. No. CK2002/071156/23

VAT Reg.: 4630220822

CONLING

Language & Translation Consultants cc

P.O. Box 165, Aurora 7325, RSA

Tel: +27 82 803 0957

Fax: 086-650-0013

E-mail: info@conling.com

Ref. DDM211129613274

Date: 16-03-2022

To Whom It May Concern

**Language Editing certification for the Philosophiae Doctor (Business Administration) thesis:
A Competitive Strategy for Smallholder Women in the Agro-food Industry in the Free State Province
(Diau Daniel Mosia)**

This is to certify that the PhD thesis detailed above was language edited by the professional English-language academic editing staff at Conling Language & Translation Consultants and delivered to the Client on 16-03-2022.

This certification letter confirms that the text was edited and that all grammar, spelling, mechanics, punctuation, flow, and phrasing errors were corrected.
The Editor is not responsible for any changes made to the edited document by anyone else (including the Client) after it is returned to the Client. The Editor is also not liable for the Client's choice not to follow the Editor's advice or suggestions.

The edited manuscript is stored in our archive in a secure, confidential electronic backup. The Client can request this copy, if needed, for up to one year following delivery.

Yours faithfully,



F. de Foglio

Project manager / Projekbestuurder

Conling Language & Translation Consultants cc

APPENDIX E: APPROVAL OF RESEARCH PROPOSAL -UFS



15 November 2018

Mr DD Mosia
UFS Business School

APPROVAL OF PROPOSED PHD

Dear **Mr Mosia**

Thank you for your presentation on 8 November 2018 to the Research Committee of the Faculty of Economic and Management Sciences, proposing a PhD in Business Administration

On behalf of the Research Committee I hereby inform you that permission has been granted by the Committee for you to continue with your proposed PhD.
Approved title: **A competitive strategy for smallholder women in the agro-food industry in the Free State Province**

Please note that your proposal still needs to be submitted to the relevant ethical committee for ethical clearance. You can proceed with the study once ethical clearing has been secured. Please contact your promotor to plan the way forward.

Our best wishes accompany you during the research process.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Igna du Plooy', is written over a light blue horizontal line.

Mrs Igna du Plooy
EMS Research Co-ordinator

Cc: Dr JW Swanepoel



Boithuto bona bo amohetse tumello ho tswa ho Komiti ya Ditekanyetso tsa Boithuto ya UFS. Kopi ya lengolo la tumello e ka fumanwa ho Mofuputsi.

Approval number: [Click here to enter text.](#)

KE HOBANENG HA O MENGWA HO NKA KAROLO MORERONG ONA WA PHUPUTSO?

Ho nka karolo thutong ena, o tlameha ho ba dilemo tse 18 kapa kahodimo, o tsamaisa kgwebo ya hao jwalo ka sehwal se ikemetseng; morekise wa seterateng kapa monga lebenkele la spaza ho e nngwe ya di sterekeng tse 4 tsa dimasepala kapa Metropolitan Profensing ya Foreistata. Jwalo ka mosadi ya ya kgwebong ya industry ya dihlahiswa tsa temo, o se o le boemong bo loketseng ho re fa dintlha tsa bohlokwa tse tswang boiphihlelong ba hao mabapi le kgwebo le ditaba tse amanang le indasteri. Batho ba ka bang (n = 852) ba tla nka karolo morerong wa thuto ena.

MOFUTA WA HO NKA KAROLO THUTONG ENA YA PATLISISO KE OFE?

Boithuto bona bo kenyelletsa dipotso le dihlopha tsa tsepamiso ya dipuisano tseo ka tsona re tla o botsa dipotso ka kgwebo ya hao ya dihlahiswa tsa temo. Lenane la dipotso le / kapa dihlopha tsa tsepamiso dipuisano di tla nka metsotso e 30-45 ya nako ya hao. Lenane la dipotso le tla o botsa ka maikutlo a hao le mekgwa ya hona jwale mabapi le kgwebo ya hao. Maikutlo le boiphihlelo ba hao ke seo projeke e ratang ho se hlahloba.

MOTHO YA NKILENG KAROLO A KA IKGULELA MORAO NA?

Ho nka karolo ha hao thutong ena ho etswa ka boithaopo mme u ka hana ho nka karolo, kapa wa emisa ka nako efe kapa efe, ntle le ho bolela lebaka. Haeba o nka qeto ya ho nka karolo, o tla fuwa leqephe lena la tlhaiso-leseding hore u e boloke mme u kopuwe ho saena foromo e ngodisitsweng ya tumello. O na le bolokolohi ba ho ikhula neng kapa neng ntle le lebaka.

KE MELEMO EFE E KA BANG TENG HO NKENG KAROLO THUTONG ENA?

Leha o ke ke wa rua molemo ka kotloloho thutong ena, diphetho tsa dipatlisiso di tla re thusa ho thusa haholo ho ntlafatsa dikgwebo tsa basadi tse nyane tsa dihlahiswa tsa temo hore di atlehe kgwebong le tlhodisanong. Boithuto bona bo tla boela bo fana ka mohlala wa nnete o ka sebediswang kabong ya disebediswa ke baetsi ba melao; barutehi le ditsebi tsa kgwebo.

HO NA LE TSHITISO E LEBELLWANG HO NKENG KAROLO BOITHUTONG BONA?

Ho nka karolo dipatlisisong ha ho a lebellwa ho ka u bakela mathata. Tshenyo e ka bang teng mmeleng le / kapa kelellong kapa kगतello ya maikutlo e tla tshwana le efe kapa efe e etsahalang bophelong ba letsatsi le letsatsi.

NA SE KE SE BUANG SE TLA BOLOKWA E LE LEKUNUTU?

Tlhaiso-leseding efe kapa efe e bokellwang nakong ya thuto e tla bolokwa ka lekunutu mme

phihlello e tla fuwa batho ba tsamaisang thuto. Lebitso la hao le ke ke la senolwa, kapa dintlha tsa dikarabo tsa hao di ke ke tsa fuwa mang kapa mang. Dikarabo tsa hao dipotsong di tla bolokwa e le lekunutu. Puisano e nngwe le e nngwe e tla fuwa nomoro ya ho thusa ho netefatsa hore diphatlalatsa ha di senolwa nakong ya tlhahlobo le ho ngola dipatlisiso.

TLHAHISO-LESELING E TLA BOLOKWA JWANG MME QETELLONG E TIMETSWE?

Likopi tse thata tsa dikarabo tsa hao di tla bolokwa ke mofuputsi nako e telele ya dilemo tse hlano ka hara khabinete e notleletsweng (polasing ya Georgina 2150 Bainsvlei) bakeng sa dipatlisiso tsa nako e tlang kapa morerong wa thuto; tlhahiso leseding ya electronlike e tla bolokwa komporong e sireleditsong ka password. Tshebediso ya nako e tlang ya data e bolokilweng e tla ba tlasa tlhahlobo le Boithuto bo Tswelang Pele ba Boitšhwaro.

KE TLA FUMANA TEFO KAPA KGOTATSO HA KE NKILE KAROLO THUTONG ENA?

Ha ho na puseletso ya tjehelete bakeng sa ho nka karolo thutong ena. Leha ho le jwalo, karolo ya hao e tla ananelwa mme e nkuwe e le tlatsetso ya bohlokwa dipatlisisong tsa rona le dipheho di ka thusa ho ntlafatsa dikgwebo tsa basadi ba banyenyane ba dhlahiswa tsa temo hore di atlehe kgwebong le tlhodisanong.

MOTHO YA NKILENG KAROLO A KA FUMANA JWANG

Dipheho tsa dipatlisiso di tla hlahiswa dikopanong tsa thuto ya lehae le tsa matjhabeng mme di tla phatlalatswa tokomaneng ya thesis le ho ya tsebiso le dithaka tse hlahlojwang ke dithaka. Ha o na ho tsebahala tlalehong efe kapa efe kapa ho se sengodilweng. Mokgatlo kapa company ya hao e ke ke ya tsejwa tlalehong kapa phatlalatsong efe kapa efe. Haeba o lakatsa ho fuwa kopi ya ditlaleho / pampiri efe kapa efe e tswang dipatlisisong, o tlameha feela ho kenya kopo e hlophisitsweng ka mofuputsi mme kopo ya hao e tla ngoliswa

Kea leboha ha o nkile nako ya ho bala leqephe lena la tlhahiso-leseding le ho nka karolo phuputsona.

Boikemisetso Ba Ho Nka Karolo Sehlopheng Sa Tsepamiso

Research project title: A competitive strategy for smallholder women in the agro-food industry in

the Free State Province

- Ke dumela ho nka karolo ho(lebitso la sehlopha ho latela setereke le toropo) e tsamaisong ya(lebitso la mofuputsi) wa Univesithi ya Free State, ho thusa ka ho etsa dipatlisiso tsa maano a tlhohiso bakeng sa basadi ba indastering e nyane ya tsa dihlahiswa-temo Profinseng ya Foreistata.
- Ke badile leqephe la tlhaiso-leseding le amanang le thuto ya dipatlisiso mme ke utlwisisa sepheo sa Morero ona.
- Ke tseba dihlooho tseo ho tla buisanwa ka tsona sehlopheng sa tsepamiso.
- Ke tseba ka botlalo hore ke tla dula ke sa tsejwe nakong eo data e tlalehwang le hore ke na le tokelo ya ho tlohela sehlopha sa tsepamiso neng kapa neng.
- Ke tseba ka botlalo hore data e bokelletsoeng e tla bolokwa ka mokhoa o sireletsehileng, ka polokeho mme tshbediso ya morao-rao ya data ena e tla kenngoa tlhahlobisong le ditekanyetso tse ding tsa Boithuto ba Phuputso haeba e sebetsa.
- Kea tseba hore ha ke qobellwa ho araba potso leha e le efe, empa hore ke etsa jwalo ka boikhethelo ba ka.
- Ke dumela hore sehlopha sa tsepamiso se ka hatiswa (video kapa dictaphone), ka hona se ka fetiswa ka mora hore sehlopha se tsepamisitsoeng se tswarwe. Kea tseba hore ke na le tokelo ya ho hlophisa sengolwa sa Sehlopha sa Tsepamiso hang hoba se phethelwe.
- Ke a tseba hore nka etsa diphetoho tse loketseng foromo ena ya tumello.
- Ke fumane khopi e saennweng ya tumellano ya boikemisetso ba ho nka karolo.

Lebitso La Hao Ka Botlalo: _____

Saene ya monka karolo: _____ Date: _____

Lebitso _____ la _____ Mofuputsi _____ ka

Botlalo: _____

Saene ya Mofuputsi: _____ Date: _____

APPENDIX G: ETHICAL CLEARANCE CERTIFICATION



GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

19-Nov-2019

Dear Mr Mosia, Diau Daniel DD

Application Approved

Research Project Title:

A competitive strategy for smallholder women in the agro-food industry in the Free State Province

Ethical Clearance number:

UFS-HSD2019/0068

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Prof Derek Litthauer

Chairperson: General/Human Research Ethics Committee

Digitally signed
by Derek
Litthauer
Date: 2019.11.19
21:32:00 +02'00'

205 Nelson Mandela
Drive
Park West
Bloemfontein 9301
South Africa

P.O. Box 339
Bloemfontein 9300
Tel: 051 401 9398 /
7619 / 3682
RIMS@UFS.ac.za
www.ufs.ac.za

