Effects of Award Incentives and Competition on Entrepreneurship Development Among Female Farmers in North West Province

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DECLARATION

I, the undersigned, declare that this thesis titled: Effect of Awards Incentives and Competitions on Entrepreneurship Development Among Female Farmers in North West Province submitted to the North-West University for the degree of Doctor of Philosophy in Agricultural Extension in the Faculty of Natural and Agricultural Sciences, School of Agricultural Sciences, and the work contained herein is my original work with exemption to the citations. This work has not been submitted to any other university partially or entirely for the award of any degree.

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Signature: 

Date: 14/07/2020

DEDICATION

I humbly dedicate this thesis to God Almighty, the Creator, Giver of Knowledge, Wisdom and understanding for the opportunity to venture into this programme.

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I thank God for making this work possible despite the challenges faced during the running of my PhD programme. I sought him in my trouble; he answered me and delivered me from all my distresses. He is my guard and guide through the thick and thin of this work, not only during the completion stages, but right from its inception. He is truly the Alpha and Omega of my entirety.
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LIST OF ACRONYMS

AIC:	Awards, Incentives, and Competition
AIM:	Amanah Ikhtiar Malaysia
AST:	Appropriate Skills Training
CAD:	Canadian Dollar
CC:	Contingency Coefficient
CED:	Co-operative and Entrepreneurship Development
CITEM:	Center for International Trade Expositions and Missions
CCHP:	Comprehensive Council Health Plan
CHMT:	Council Health Management Team
DAFF:	Department of Agriculture, Forestry, and Fisheries
DLE:	Department of Labour and Employment
DTI:	Department of Trade and Industry
EDT:	Entrepreneurship Development Training
ETC:	Etcetera
FAO:	Food, Agriculture, Organisation
FEA:	Female Entrepreneur Award
FPCCI:	Federation of Pakistani Chambers of Commerce and Industry
GAWE:	Ghana Association of Women Entrepreneurs
GDP:	Gross Domestic Product
GEM:	Global Entrepreneur Monitor
GEDI:	Global Entrepreneurship and Development Institute
GFRAS:	Global Forum for Rural Advisory Services
GNP:	Gross National Product
GREAT:	Gender Responsive Economic Actions for the Transformation of Women
GSA:	Golden Shell Award
GWP:	Great Women's Project
HCI:	Household Commercialization Index
HFGC:	Health Facility Governing Committee
IFC:	International Finance Corporation
IFSNPI:	Integrated Food Security and Nutrition Production Intervention

IRMSA:	Institute of Risk Management of South Africa
IWAPI:	Indonesian Businesswomen's Association
MEC:	Member of Executive Council
NAWBO:	National Association of Women Business Owners
NAWEM:	National Association for Women Entrepreneurs of Malaysia
NDP:	National Development Plan
NGO:	Non-Governmental Organisation
NOC:	National Organizing Committee
NPOs:	Non-Profit Organisations
NWBC:	National Women's Business Council
OECD:	Organisation for Economic Co-operation and Development
OLS:	Ordinary Least Square
OSMEP:	Office of Small and Medium Enterprises Promotion
PSA:	Pagosporserviciosambientales
PAAFN:	Poverty Alleviation Agency for Nigerians
PROWESS:	Promoting Women's Enterprise Support
PQA:	Philippine Quality Award
READ:	Rural Environment and Agricultural Development
SA:	South Africa
SABS:	South African Bureau of Standards
SBA:	Small Business Administration
SBDD:	Small Business Development Department
SBEs:	Small Business Economics
SFC:	Small-Farmer Commercialization
SMEs:	Small and Medium Enterprises
SPSS:	Statistical Package for Social Science
TDAP:	Trade Development Authority of Pakistan
UK:	United Kingdom
USA:	United States of America
WBC:	Women's Business Centers
WBCP:	Women's Business Council of the Philippines

WEAN:	Women Entrepreneur Association of Nepal
WEED:	Women Employment and Entrepreneurship Development
WEAM:	Women Entrepreneur Associations Malaysia
WENA:	Women Entrepreneurs Network Association
WSMEAM:	Women's Small and Medium Enterprise Association of Malaysia
WsSBN:	Women’s Small Business Network
ZAR:	South African Rand

ABSTRACT

Since the inception of the Female Farmers Entrepreneurial Award in 1999 that was inaugurated to promote entrepreneurship and commercialisation among female farmers in the North West Province, there has not been any assessment study of the programme in the Province. This study sought to establish the effect of Award Incentives and Competition (AIC) on Female farmers Entrepreneurship Development in the North West Province. Specifically, the study identified the socio-economic characteristics of the respondents; described the agricultural entrepreneurial activities they are involved in; established their level of participation in the Awards Incentives and Competition; determined the benefits of the Awards, Incentives and Competition to the respondents; established the constraints that hinders women farmers from benefitting from the programme; and also determined the degree of commercialization of the female farmers.

A simple random sampling technique was used to identify female farmers who are enrolled and participating in the AIC from the four districts of the province to ensure that all female farmers in the study area had an equal chance of being selected. Krejcie and Morgan's sample size table was used to determine the sample size. Accordingly, 156 respondents from the total population of 226 farmers agreed to participate. The semi-structured questionnaire consisting of six sections was used to collect information from the female farmers. Descriptive statistics (frequency counts, percentages, means and ranks), Household Commercialisation Index and inferential statistics (Probit regression) were used for data analysis.

The mean age of the women was 46 years, with the majority (54.5%) being married. The mean household size was six, and almost two-thirds (60.3%) did not own the land they farmed. The mean farm size was 150 hectares, and 73.7% indicated that they employed up to five individuals in their business. Their mean income per-annum was less than ZAR 500,000.

Entrepreneurship development was conceptualized in this study as a commercialization index. The commercialization index was determined by sales output for the different enterprises for each of the respondents. A pooled commercialization index score was generated for each of the respondents. The two categories of low and high were used as the dependent variables in probit regression analysis. The results show that there is a significant relationship between respondents' selected socioeconomic characteristics, benefits, constraints and participation in AIC on their entrepreneurship development that makes the null hypothesis rejected.

It was further noted from the results of the regression that age and years of farming experience were significant to the entrepreneurship development of the respondents in the study at 1% and 5 % level of significance respectively. The One-way ANOVA was used to show the differences of levels of entrepreneurship development based on the level of participation, benefits and constraints on award incentives and competition.

It was recommended that the programme should encourage younger generations of female farmers since the mean age was found to be 46 years and that a sustained level of participation with reduced constraint level will encourage entrepreneurship development in the study area. Training programmes should be encouraged from time to time to teach new or improved farming innovation as it was seen that respondents believed more in their years of farming experience than proper education; tax policies should be re-visited especially for emerging farmers as well as policymakers should revisit the policies put in place that is a bit challenging for emerging farmers to be able to secure financial support from the financial institutions.

Keywords: Development, Entrepreneurship, Grants, Impacts, Motivation, Women

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The Global Forum for Rural Advisory Services (GFRAS 2016) expressed that the economic significance of women farmers and their role in expanding household's income is frequently ignored as well as their potential as customers of extension services and, in this manner, potential clients for entrepreneurs. This neglect of the women farmers seems to pose difficulties including the unavailability of labour, lack of authority and basic leadership inside the family which impact on their farming systems. As indicated by de Haan (2017), promoting gender equity is presently commonly perceived as a necessity for poverty reduction and development. The issue of the empowerment of women and gender inequality is at the top of the world's agenda as gender inequality is widespread in all societies (Bayeh, 2016). Gender disparity shows a profound contrast between developed and developing countries (Ahmed, Angeli, Biru & Salvini. 2001). In order to achieve gender equality, women's empowerment, equitable sustainable economic growth and development, equal access and control over economic and financial resources are critical.

The correspondence between gender equality in the distribution of economic and financial assets has positive multiplier effects on a range of key development goals, including poverty reduction and child welfare. Alleviation of poverty through women's empowerment has to be one of the vital techniques in developing and underdeveloped nations of the world from the immediate past decades (Demeke & Gebru 2015). The administration of underdeveloped and developed nations of the world made a decent attempt to handle the issue of poverty through different measures and strategies. Micro-efficiency results have been recorded through increased household productivity and macro-efficiency results through positive synergies between gender equality indicators and

economic growth. The rationale for improving women's access to economic and financial resources includes the role of women in economic downturns as a safety net of last resort.

Long-standing uneven characters in the gender dispersion of economic and money-related assets have put women unsuspecting in regard to men in their ability to partake in, and add to profit, by more extensive procedures of development (Demeke & Gebru 2015). Notwithstanding extensive progress on numerous parts of women financial strengthening through increments in educational achievement and offer of paid work, profound disparity holds on because of prejudicial standards and practices. As a result, the pace of progress has been moderate and uneven crosswise over districts. Women continue to miss from key essential basic leadership dialogues framing the distribution of economic and financial related assets and openings, which further propagates gender disparity. Economics is one of the main reasons why we should work so hard to empower women and encourage gender equality (Bayeh, 2016).

Economic development cannot be understood without the inclusion of women as part of sustainable development (Demeke & Gebru 2015). Kabeer (2009) showed that the effect of economic development on gender equality could vary significantly, including employment, prosperity and broader gender equality indicators. For women, the positive employment changes associated with growth changes were greater than for men. However, economic growth has had a limited recorded effect on the life expectancy of women and the participation of women in economic and political decision-making.

Small-scale effects outline the importance of gender equality in education and employment for economic growth and efficiencies created by the ideal use of human capital, ensuring women's economic strengthening and access to assets. A control over gender equality requires a coordinated

approach to development, focused on promoting gender-friendly employment interdependency among economic and social development (Bayeh, 2016).

There is a sound business case to ensure women's access to financial services. Women own 38% of independent companies registered in the United States of America, a third of small businesses in China, nearly 50% of all micro, small and medium-sized enterprises in Kenya, 39% of all companies registered in Uganda, and a third of all companies in the Asia-Pacific region (Narain, 2009). Women are engaged in a range of entrepreneurial activities like men. In general, they will be more focused than men in micro, small and medium-sized enterprises due to their lack of collateral, household duties, mobility and financial skills. They are also constrained by the lack of formal credit history and reputational collateral for women. A gender-neutral regulatory environment can lead to gender-differentiated results, where women can be more hindered in starting up or supervising businesses than men, as they may be less able to bear the costs of long and expensive registration procedures (Bardasi, 2007). For example, women entrepreneurs in South Africa have been faced with major obstacles to access to finance. After two years of operation, women made up only 5% of customers in the Black Economic Empowerment Equity Fund of a prominent bank in the country (Naidoo & Hilton, 2006).

In Uganda, only 9% of accessible credit was available to women, with only 1% in rural areas (Ellis, Manuel & Blackden, 2005). In Bangladesh, women remained marginalized in the formal banking sector after more than two decades of efforts to show that women are bankable. Although women's deposits accounted for 27% of total deposits in the formal sector, their share of formal credit was 1.8% (Choudhury & Raihan, 2000). In Bangladesh, a later report found that small businesses led by women accounted for less than 2% of formal institutions' loans (Narain, 2006). In Tunisia, in 2006, 47% of women entrepreneurs had bank credit, compared to 34% in

Jordan, 32% in the United Arab Emirates, 22% in Bahrain and 17% in Lebanon. In view of their limited access to formal financing, women primarily financed their businesses through personal sources, such as investment funds and support from loved ones, as well as by reinvesting their business profits (Center of Arab Women for Training and Research, 2007).

Doss and Team SOFA (2011) showed that agriculture could be an imperative driver of development and poverty reduction. The international development community has realized that agriculture is a driver of development and poverty reduction in countries where the less privileged are the main beneficiaries of employment. In any case, in many countries, the agricultural sector fails to meet expectations to some extent, since women, often a key resource in agriculture and in the rural economy, face constraints that reduce their productivity. The efforts of national governments and the international community to achieve their agricultural development, economic growth and food security objectives will be strengthened and accelerated if they increase the commitments made by women and find a way to alleviate these constraints. In all developing countries, women make fundamental contributions to the agricultural and rural economies (Doss 2011). Their roles vary significantly from region to region and change quickly in many parts of the world, where economic and social forces transform the agricultural sector.

Ayogu and Agu (2015) showed that women made a significant contribution to their particular economies. The total level of food production contributed by women was 43.88%, with a range of 32.24 to 50.73 in specific areas of cultivation. Information on Brazilian women's labour support revealed that 8% of women in a developed region were working. Individual figures for the intermediate and less developed areas were 24% and 36% respectively. Shyamalie and Saini (2011) reported that women played an important role in agriculture, as agribusiness is a family-

owned nuclear enterprise. Recent research has shown that women in India are critical food producers in terms of value, volume and number of working hours.

World Bank Group (2018) in Sierra Leone showed that women carry out a crucial activity in the agribusiness industry and contribute about 40% of total work. In addition, their budgetary responsibility (67%) for total agribusiness income was higher in the same way. Raney, Anríquez, Croppenstedt, Gerosa, Lowder, Matuschke, and Skoet (2011) analyzed the work of women workers in the Himachal Pradesh area of Una. It was found that 63% of women were employed and 90% were related to agriculture.

Musafiri and von Braun (2016) conducted an examination of the commercialization of agriculture under population pressure in the Giciye collective in North-Western Rwanda. It was found that men contributed an average of 25.3% of the total contribution of women to family labour, compared to 74.1%. The proportion of women in all harvests and activities was higher than for men. Gillespie, Harris, and Kadiyala (2012) investigated the pattern of women's participation in various agricultural and non-farm activities in Haryana. They found that 14% of total adult women were engaged in wage-earning activities. The rest of the people were observed to be participating in their own farms. Baliyan (2018) surveyed the total work input of the family and examined the division of labour in agricultural households in Himachal Pradesh. The investigation revealed that women labour accounted for 61% of total farm work, and their participation in activities such as animal husbandry was more critical than in crop production.

Paul, Meena, and Singh (2016) reflected on the socio-economic dimensions of a working farm-women in rural India. They explained that rural women play a variety of roles, many of which are of greater financial importance, and that farm-women play an important role in society's

domestic and socio-economic life. Mthi, Nyangiwe, Menhas, Mushunje, and Ighodaro (2018) investigated the role of women in agribusiness, including animal husbandry, sericulture and other exercises linked to the participation of female farmers in decision-making. The scientist revealed that the degree to which women play an essential or equal role in the selection of crop variety during financial problems was most elevated, but women's inclusion was usually low.

Baba, Zain, Idris, and Sanni (2015) examined the impact of women's participation in agricultural work on their role in economic and household decision-making. The study highlighted women's amazing economic contribution to productive as well as domestic activities in the hill region. Singh, Jhamtani, Bhadauria, Srivastavat, Rahul and Singh (2004) took into account women's interests in agriculture and found that rural women play a critical role in agricultural activities, such as seeding, transplanting, weeding, application of manure, plant protection, harvesting, processing, and storage. Men only carried out a few of these activities. Therefore, by sharing most of the above agricultural exercises, they directly or by implication affected the course of farming. Khapayi and Celliers (2016) showed that the South African agricultural economy has no place for women farmers, while Chikazunga and Paradza (2012) highlighted that there is no solid support system available to help women farmers who have previously been disadvantaged. Numerous females developing and established farmers in South Africa confront diverse grades of difficulties because of lack of access to appropriate and timely information, as well as lack of access to formal agricultural healthy markets and rewards for their contributions to the economy. Makura and Mokoena (2001); Wynne and Lyne (2003), all believed that in underdeveloped rural areas in South Africa, it is difficult for emerging farmers to participate in commercial markets due to a range of constraints. Wynne and Lyne (2003) a well as Wynne and Lyne (2004) stated that attempts by farmers to market their

commodities are largely influenced by poor infrastructure, inadequate property rights, low levels of education, lack of access to credit, lack of innovative production tools needed to build the yield of produced commodities and poor entrepreneurial skills needed to produce them (Bienabe & Vermuelen, 2011).

Gender inequalities are inevitable in all labour markets. Gender inequalities are progressively difficult to measure in the agricultural sector, but they are similarly broad. Doss (2018) indicated that women provide 40% of the farm labour in crop production as compared to men, and stated that if women had the same access to resources as men, they would increase yields on their farms by 20-30%. This could generally raise total agricultural output in developing countries including South Africa by 2.5-4%, which will reduce the number of hungry people in the world by 12-17%. Furthermore, Farmersweekly (2016) indicated that limited access to agricultural extension services prevents many women from adopting the technologies that would help increase their yields with an estimated gap between men and women of 20- 30% which will hinder the growth of the agricultural sector in many developing countries including South Africa. As Alsop, Bertelsen, and Holland (2007) indicated, the increase in the income of women and the share of family income seemed to empower women by strengthening their household bargaining power. Empirical shreds of evidence show that women invest more in child development than men. Higher levels of employment and women's earnings do not only contribute to current economic growth but also have intergenerational consequences. In addition, the Alsop, Bertelsen, and Holland (2007) stated that women represent the largest group of unpaid workers in both rural and urban areas since agriculture are industrialized by globalization; women remain concentrated in the labour-intensive parts of the agricultural value chain, without contracts, low wages and limited benefits. Therefore, the development of women and established farmers continues to be

caught in a cycle of work in the market from which their rural agricultural activities are not rewarded (Makura & Mokoena, 2001). Lantara (2015) stated that women's contributions ought not just to be seen as far as women's roles as wives and mothers, their productive contributions are likewise of focal significance to the economy.

As indicated by Fries (2015), women play a focal role in the global economy, thus the role of women in agriculture and entrepreneurship cannot be overemphasized. Frazier (2016) clarified that studies argue that the empowerment of women in agriculture, with full support and equivalent resources with men, will increase the total agricultural output in developing nations from 2.5% to 4%. This is sufficient to diminish the number of undernourished individuals on the planet by somewhere in the range of 100 and 150 million while expanding wealth all through the value chain. He further expressed that in sub-Saharan Africa, just 15% of landowners are women among whom only fewer than 10% access credit and credit facilities and about 7% access extension services.

The commercialization of agriculture characterized by Pinder and Wood (2003) develops and promotes a profitable agricultural production and marketing system, with the ultimate objective of focusing agricultural products at local, regional and international levels. Hall (N.D.) and NDA (2008) showed that commercialized agriculture remains essential for the economy of South Africa. According to Tradingeconomics (2020), GDP from Agriculture in South Africa decreased to 69058.48 ZAR Million in the third quarter of 2019 from 69690.51 ZAR Million in the second quarter of 2019.

Although the share of GDP from agriculture may be low, primary agriculture remains vital to the economy. It supplies agricultural inputs to markets; it supplies processing products to agribusinesses; it uses a critical part of the workforce; it earns foreign exchange and ensures

that South Africa is a net exporter of agricultural products for many years. Each of these qualities makes the agribusiness business a critical part of an economic policy-oriented towards exports.

An investigation by the UN Food Agriculture Organisation (FAO) on the roles of agriculture noted that South Africa's commercial farming sector is utilitarian for development in the national economy by expanding earnings from exports, yet this economic benefit is being captured by a thin stratum of producers and marketing agents (FAO, 2003). As such, the economic challenge is to broaden the distribution of incomes from agriculture. The social role of commercial agriculture is progressively broken among women, in that it gives fewer livelihoods and compounding poverty and disparity in the population (FAO, 2003). Dancer and Tsikata (2015) additionally contributed that gender differentiation is another limitation confronting low commercialized agriculture among women in South Africa, which is apparent in the work environment, land tenure, and progress for the sector and for the economy. Given the key role women play in agricultural production, improving their circumstance implies progress for the sector and for the economy in general. In the event that women have similar levels of education, experience and farm inputs as men, they can increase yields of some crops by 22% (Adeniyi, 2010).

Mahaliyanaarachchi and Bandara (2006) believed that agricultural marketing is an inevitable reality throughout the world today. Various variables influence agricultural marketing procedures. Some of these could be referred to as the rapid development of economies in both developing and developed countries, the introduction of new technologies, market expansion, market liberalization, urbanization, rapid increase in food demand, a decrease in the number of farmers, liberalized and open economic policies, bilateral and multilateral economic agreements, developed

infrastructure in agricultural areas. However, commercialization in agriculture is certainly not another wonder and the farming community is nothing but astonishment. Since the 1950s, farmers have moved to commercial agriculture in the majority of nations (Mahaliyanaarachchi & Bandara 2006).

Agricultural extension plays a significant role in agricultural production. As a result of changes in the market (e.g. boycotts), changes in consumer habits (e.g. organic/local food), stricter environmental regulations, food safety and product quality, biotechnology, large-scale data, integration of the value chain, sustainability, new entrants and innovations were introduced to the environment in order to promote agricultural marketing. Politicians, as well as scientists, perceive that farmers increasingly need entrepreneurship to be sustainable in the future, other than sound management and craftsmanship (McElwee, 2008; Pyysiäinen, Anderson, McElwee & Vesala 2006).

Recent studies show that agricultural entrepreneurship is not only a wishful thinking or a new hype as it profoundly impacts on business growth and survival (Lans, Verhees, Verstegen, 2016; Verhees, Lans & Verstegen, 2012). Agricultural entrepreneurship shares numerous characteristics of generic entrepreneurship, yet in addition has its particular highlights due to the specific setting of the agricultural sector. As indicated by Stevens (2017), agricultural commercialization among individuals or group of farmers of like-mindedness is intended to invigorate entrepreneurship through the arrangement of information and other advisory and capacity building administrations. It also speaks to farmer's interests in approach exchanges, and discourse with different agribusiness accomplices.

According to Nayab (2011), an entrepreneur is an individual who begins and possesses a business in the public, be it a man or a woman. The expressions "entrepreneur" and "entrepreneurship" are

utilized conversely. Consequently, the early theories of entrepreneurs and their definitions include those where Cantillon (1680-1734) characterized an entrepreneur to be a man or a woman who purchases means of production at specific costs to combine them into a new product. Jean-Absolve Say (1767-1832) enhanced Cantillion's definition by including that the entrepreneur unites individuals to build a productive item. Moreover, Frank Knight (1885-1972) first presented the component of risk as a focal characteristic of entrepreneurship and included the element of risk-taking to prior ideas. It considers uncertainty as a factor of production and holds the main function of the entrepreneur as acquiring profit as a reward for taking such risks. Alfred Marshall (1890) held that land, labour, capital and entrepreneurship as the four factors of production, and considered entrepreneurship as the driving factor that unites these four elements.

Harvey Leibenstein (1922-1994) thought about entrepreneurs as gap-fillers. Their three attributes include perceiving market patterns, growing new products or procedures in requests yet not in supply, and deciding beneficial activities. Peter Drucker (1909-2005) holds innovation, resources, and entrepreneurial behaviour as the keys to entrepreneurship. As indicated by Drucker (1909-2005), entrepreneurship involves an increase in the value or satisfaction of the customer from the resource, creation of new ideas, and consolidating existing materials or resources in new productive combination. Petrin (1994) expressed that rural development is presently being linked with entrepreneurship and institutions. The individuals promoting rural development now see entrepreneurship to be a vital development intervention that could quicken the rural development process. Besides, institutions and individuals appear to agree on the earnest need to advance rural enterprises, with development agencies regarding rural entrepreneurship as a considerable employment creator. Besides, in his introduction,

Petrin (1994) mentioned that in this development, entrepreneurship is aimed at enhancing the quality of life for individuals, families and communities at large.

A successful entrepreneur's characteristics include a thorough understanding of the industry, good leadership skills, demand forecasting and changes in supply, and willingness to act on such risky foresight. However, an entrepreneur's success does not depend on ownership of these skills, but on economic development. KritikoS (2014) said that the benefits for society will be more prominent in economies where entrepreneurs can be flexible, think and reap the benefits, create new technologies, develop new products or process innovations and open up new markets. KritikoS (2014) further showed that entrepreneurs who bring innovation to the market offer a key contribution to economic progress that generates value. The need for achievement is communicated in the search for new and better solutions and the ability to deliver these solutions through their own performance. An enabling environment is necessary for entrepreneurship to flourish in rural communities, depending on policies that promote rural entrepreneurship. Therefore, the adequacy of such strategies depends on a reasonable system, incentives and awards, among other methods of support for women farmers' greater participation and production. As Gülçubuk (2016) pointed out, women and children are the most disadvantaged in development. Their work is less important and less important than similar work carried out by men, women have less access to resources than men, such as credit facilities, extension and advisory services, less control over family income, and less administrative and control in public spaces.

Kahan (2012) defined entrepreneurship as a key factor for the survival of small-scale farming and increasingly global economy. Farmers see their farms as a business and a means for earning profits. The entrepreneurial process includes encouraging small-scale subsistence farmers to

become commercial farmers on a large-scale in the long run. Some farmer-entrepreneurs confront numerous difficulties amid the way toward developing their business, for example, market-related risk, access to finance and credit, access to information, low bargaining power, vulnerability to economic shock and access to training and related challenges. Nonetheless, it very well may be noticed that farmer-entrepreneurs have grown their business through the increase of production, processing, and packaging to add value to the farm products.

The formation of a relationship between agriculture and farmers is to encourage and promote entrepreneurship and the possibility of cultivating an entrepreneurial spirit among a group of farmers. Extension workers are expected to make linkages between input suppliers and market while developing the management of individuals and resources together with learning entrepreneurial skills in business (Kahan, 2012). Entrepreneurship has been viewed as another marvel in the development and the growth of developing economies and nations including South Africa (Kahan, 2012). There is the need to harness all abilities the farmers can render in order to increase productivity also have the capacity to withstand cruel conditions on account of environmental changes. Mujuru (2014) further expressed that an expansion in entrepreneurship can effectively advance human improvement. Besides, Mujuru (2014) featured that entrepreneurship can accelerate a person's social and mental development. Subsequently, agriculture is not just a motor for development in the developing economies, yet in addition, it is a key factor in alleviating poverty and promoting family dignity, recognition, feeling of having a place, sense of pride, and self-satisfaction in the community.

Kumar (2015) showed that entrepreneurship is most likely to be created when a community has enough people with specific mental qualities, as psychologists have indicated. The main characteristics are an institutional ability to see things in a new way; the energy of will and

psyche to overcome fixed thinking habits; the urge to do something and achieve something and fulfil a dream; the ability to withstand social opposition; and the great need for achievement. Each of the above attributes alone is inadequate and none is correct or incorrect. Entrepreneurship is influenced by a variety of factors and no single factor can create entrepreneurship along these lines. Entrepreneurship is thus the result of a complex and variable combination of socio-economic, psychological and other factors.

According to Harris (2002), entrepreneurship involves choices and the direct consequences of these choices; deals with results specifically associated with the manager. Stevens (2017) opined that one of the basic components for effective entrepreneurship is good business relations and cooperation with players in the value chain. Entrepreneurs ordinarily have a broad system of networks and experienced partners amid the establishment phase of the business. Entrepreneurship depends on people who understand cost-benefit ratios and can assess market opportunities and related risks.

Mujuru (2014) pointed out that agriculture is seen as a fundamental economic activity that contributes to the overall creation of wealth in the nation, which calls for small and large-scale farmers to carry out entrepreneurial agriculture at that point. Agricultural entrepreneurship would thus be able to be characterized as being principally related to the marketing and production of various agricultural products. Agricultural entrepreneurship is likewise identified with agricultural inputs. To be an agricultural entrepreneur, one should keep on discovering approaches to not just farm but as well as profit from your farming. A few points of characteristics have been distinguished under the significance of agricultural entrepreneurship. Edia (2017) distinguished that an agricultural entrepreneur keeps an eye out for market trends. Agricultural entrepreneurs are risk-takers, and that is the reason they will record more profit. In

the quest to find ways to make farming less demanding and quicker, an agricultural entrepreneur will put resources into cutting edge devices or develop tools and sell to other farmers.

To drive entrepreneurship among women, development programmes and strategies have been brought into the agricultural sector to urge more females to join, take an in interest and create their own enterprises, and help more individuals to have the capacity to provide for their families in order to address food security. The Department of Agriculture, Forestry, and Fisheries (DAFF) launched the female entrepreneur award in 1999 (DAFF, 2013). The creation of awards incentives and competition programme is a major means for commending the accomplishment of the women in agriculture that have helped in playing a role in building the nation's agricultural sector and helping to check food insecurity. Female farmers are rewarded either in cash or in-kind through the development of their farm infrastructure and the provision of farm tools for the purpose of production. The introduction of the programme in the North West Province is to balance the economic gap created between the men and women, in which female farmers are now recognized and rewarded according to their effort through awards and incentives.

According to Dalkir (2013), an incentive is an offer that persuades a person to perform an action in terms of their both decision-making and co-operation and competition inside a bigger institutional structure. Dalkir (2013) separated incentives into five classes which; incorporate remunerative, financial, moral, coercive and natural. According to Dalkir (2013), remunerative and financial incentives exist where an individual can expect some form of material reward, particularly cash in return for acting in a particular way. Moral incentives exist where a particular choice is broadly viewed as the proper thing to do, or as especially admirable, or where the inability to act in a certain way is condemned as obscene. Individuals acting on a moral incentive can expect a sense of self-esteem, and endorsement from their community. There is a coercive

incentive when an individual can anticipate that failure to act in some way leads to the use of physical force by others in the community against them or their loved ones.

The introduction of incentives to motivate and encourage the marketing of subsistence farmers in nations, for example, has led to a variety of changes in production and consumption for men and women (Drafor, 2014; Adenegan, Adams, & Nwauwa, 2013). The effort to migrate women farmers based on subsistence to commercial production is considered to be Small-Farmer Commercialization (SFC), the effect of which has not been discovered in the light of the conditions for the establishment of the Award Incentives and Competition (AIC). It is anticipated from the participants and beneficiaries of the incentive that it will be a driver of the production process and economic development, raise the income level, promote industrialization, promote capital formation, create more employment, improve the standard of living, and are a source of government finance for development in North West Province.

1.2 Importance of small and medium businesses in South African agriculture

As indicated by Groepe (2015), South Africa's National Small Business Act of 1996 defined a micro-enterprise as a business having less than five employees, a very small business that has six to twenty workers, a small business to be employing twenty-one to fifty workers, and medium organizations to be the one that has less than two hundred workers. Maye (2014) expressed that the aim to strengthen Small, Medium and Micro Enterprises (SMMEs) with an end goal to create employment and stimulate South Africa's economy prompted the formation of the Small Business Development Department (SBDD). In this manner, South Africa recognized the significance of small business growth to its economy with the hope that it can lead the path to a flourishing agricultural sector.

Agbenyegah (2013) featured the significance of having a small business sector in the economy as being that it contributes to growth and employment. An overview directed by Growafrica (2017) noticed that small and medium enterprises assume a basic role in accomplishing food security in Africa. Besides, the study demonstrated that the continent's smallholders, who make up the most of Africa's farmers, are in a superior position to secure inputs, produce what the market requests and find off-takers for their products. As per Eskesen, Agrawal and Desai (2014), Small and Medium Enterprises (SMEs) are viewed as being basic for economic progress in most developing countries including South Africa. DAFF (2015) featured that the government has prioritized entrepreneurship and the advancement of SMEs as an impetus to accomplish economic growth and development. To additionally help SMEs to access formal standard markets, government will assume an encouraging role in guaranteeing the market preparation of SMEs by giving help with meeting the guidelines required by the formal markets through quality affirmation programs. These will be executed in a joint effort with the South Africa Bureau of Standards (SABS) as the overseer of quality assurance.

The number of SMEs in South Africa was 2.8 million in 2015 where their commitment to employment was 60% (Groepe, 2015). SMEs added 52 to 57% to the GDP of South Africa when contrasted with different parts of the economy. It would then be examined that SMEs are established through innovations and entrepreneurship. As to the extent of SMEs to different parts of the economy, Cant and Wiid (2013) expressed that they represent around 91% of the formal business entities, thus contributing somewhere in the range of 51 and 57% to the GDP of employment in South Africa. Examples of SMEs in agriculture include the following:

- Input and technology producers: major in design, assemble or manufacture equipment;
- Producers: sow, farm and harvest crops, raise poultry and livestock or fish;

- Logistics, trade and distribution provides logistics, distribution and trade services for agricultural produce;
- Processors: they process and package agricultural products for sale to customers or traders;
- Wholesalers: procure raw or processed products from farmers and processors to export or sell to retailers or processors; and
- Retailers: they sell agricultural products to consumers through retail markets (Cand & Wiid 2013).

SMEs face various problems that can be resolved by the government and some corporate sector. The South African Institute for Risk Management (IRMSA, 2015) pointed out that small businesses, as indicated by the National Amendment Act of 2014, are there to make a profit. Some of the factors affecting the ability of an entity to succeed include labour problems, power supply, Black Economic Empowerment and the National Development Plan (NDP). Through the NDP, the South African government has clarified that small businesses and cooperatives are at the center of development in order to combat poverty, inequality and unemployment. This has led to the creation of the Ministry of Small Business Development, which serves small business owners.

SMEs in South Africa face various difficulties which include crime and corruption, appropriate technology and low production capacity, lack of management skills and inadequate skills, financing, access to credit, market access and development of relationships with customers, recognition of large companies and government bureaucracy, and knowledge and support for the role they play in the economy (Agbenyegah, 2013). Other factors, such as the lack of business profit and the difficulty of raising the necessary funds, account for the closure of businesses

(Agbenyegah, 2013). Kelly, Singer and Herrington (2012) agree that these factors contribute significantly to the closure of small businesses.

In order to be able to run a small business successfully, these challenges must be explored and alleviated. The NDP target for SMEs is expected to have reached approximately 90% of the economic contribution by 2030. The NDP imagines that the South African economy grows by at least 5.4% each year, and it does not overemphasize the contribution of SMEs to the economy. As SBP (2014) indicated, the NDP's objective of creating jobs in the SME sector depends on the creation of a business environment that underpins its development and maintenance and supports a culture of entrepreneurship that empowers new SMEs to thrive.

1.3 Neglect of Women in Agriculture

The role of women in food and agricultural production has an increasing impact on the development of women and the economy at large. Women represent most of the rural subsistence farmers, and their vital job as the country's mothers cannot be disregarded in the national development of food production (FAO, 2017). The significance of women's commitment to food security in rural communities cannot be overemphasized. While trying to alleviate rural poverty and improve food security, issues relating to women as producers and food providers should be taken into contemplations (FAO, 2017).

Eurekalert (2012) featured that the global sidelining of women farmers puts food security at extraordinary risk. Eurekalert (2012) further demonstrated that women represent 43% of the agricultural labour force in developing nations including South Africa and that women confront a widespread restriction on their ability to purchase, sell or inherit land, open a bank account, get cash or sell their harvests at the market. Every one of these imperatives faced by female farmers leads to the low production and yields on their harvests contrasted with their male partners.

The restricted access to opportunities in production, access to proper implements for different agricultural tasks, credit facilities, proper technology and extension and advisory services, together with the challenges of laying claim to land rights, are the major constraints in agricultural activities performed by women. The disregard of women in agriculture has hindered enhancements in numerous areas, for example, land ownership rights, decision making and access to credit facilities, with the issue of gender inequality remaining an issue in agriculture.

Despite the increasing number and contributions of women entrepreneurs, Brush (2009) highlighted that female entrepreneurs appear scanty and they are under-studied. To address this awkwardness between the designation of resources and production between men and women, the South African government intends to give a proper medium in empowering and financing production through consolidated endeavours of national, provincial, and local government agencies by creating projects and schemes aimed at boosting production and graduating subsistence farmers into commercial farmers. An example of such activities is the creation of the Awards Incentives and Competition (AIC) programme among female farmers which started 20 years ago. It is foreseen that this programme will urge women to participate in food production (DAFF, 2015).

1.4 Problem statement

Rabana (2018) stated that the present condition of entrepreneurship in South Africa is low, with a 13-year unemployment high-rate of 27.7%, GDP decreasing to 0.7% and that entrepreneurship development will promote economic growth. The global entrepreneurial index estimates that the barrier to entrepreneurship transverse over 92% of the world Gross Domestic Product and 85% of its people including physical infrastructure, access to funding, pioneering demeanours, quality of education and strategy place South Africa at the 46th position out of 85 countries. Likewise,

the global entrepreneurship monitor expressed that South Africa's entrepreneurial activity levels have remained constrained from 2001 to 2016 (Worldwide Entrepreneurship Monitor, 2017). In sub-Saharan Africa, the global entrepreneurship index of South Africa was positioned second after Botswana at 33. This implies that the opportunity is available and ready to be jumped on by the entrepreneurs in the region (Acs, Szerb & Lloyd, 2018). It was additionally recognized that in the region, start-up skills, risk acceptance, and risk capital are a portion of the barriers to entrepreneurship development. The aim of the index is to demonstrate which nations are performing admirably and furthermore show ones that could improve.

Practically 90% of the job creations, tax provision and contribution to GDP in developed and developing economies are represented by SMEs. Be that as it may, with this stated, SMEs still face various difficulties running from power deficiency, lack of capital, poor administration skills and competencies, inadequate information and corruption. Lekhanya (2015) detailed that South Africa has moderately low levels of entrepreneurship with Small, Medium and Micro Enterprises (SMMEs) accounting for about 55% of employment when contrasted with 90% in China, India, and Indonesia. It was, likewise, noticed that this high failure rate of SMEs is estimated at 70-80% in South Africa, including agriculture.

Muriithi, Kinuthia, Ngure, Waithima, Kizito, Kiarie-Makara and Njuguna (2017) likewise demonstrated that SMEs are quite notable engines that drive economic development. Willemse (2010) demonstrated that in South Africa, the failure of SMEs is somewhere in the range of 50 and 95% depending on the industry when talking about the mortality rate. As shown, the major source of constraint for entrepreneurs is the lack of access to financing. The development of SMEs in Africa requires a sufficient supply of financial capital.

Another test confronting SMEs in the continent is the lack of essential amenities which include a consistent power supply and satisfactory water supply. This implies that SMEs cannot work or perform at full capacity. Poor management is another significant limitation that influences the survival of SMEs in Africa and South Africa specifically. Competency and capacity are other significant requirements that influence the execution of SMEs. The absence of access to dependable information is additionally a typical factor against the survival of SMEs (Kamunge *et al*. 2014). As per Amyx (2005), negative perception likewise influences the survival of SMEs. Kamunge *et al*. (2014) additionally opined that the lack of government bolster likewise mitigates against SMEs. In conclusion, Chu, Kara and Benzing (2010) distinguished corruption as one other major limitation too.

SMEs in South Africa tend to face a greater test of access to appropriate technologies and the collection of information in relevant and available techniques than their partners. The Office for the Promotion of Small and Medium Enterprises (OSMEP 2007) indicated that SMEs in South Africa tend to be undertakings with a low productivity rate. This means that SMEs make use of non-propelled technologies, resulting in SMEs not operating at full capacity or being able to compete with larger companies.

Moreover, Leboea (2017) expressed that SMEs do not maximize their machinery and consequently, they have great constraints with respect to technology and productivity. The report by the World Bank (2010) in Leboea (2017) demonstrated that African entrepreneurs need to begin putting resources into applicable technology so as to increase the capacity that their SMEs may enhance the quality and production which will, thusly, increase competitiveness. It is likewise basic, as indicated by Trumbach, Payne and Kongthon (2016), that SMEs need to draw in the government for their help with respect to technology initiatives. From all signs, it is

imperative to state that SMEs need to put resources into innovation as it is currently a plus in today's world business.

A high unemployment rate is another constraint identified to be adversely affecting the entrepreneurial process (Viviers, 2004). Wickham (2001) distinguished that a country that is plagued with high unemployment will prompt much more people to push into beginning SMEs as an issue of survival. Lack of skilled labour and its shortage is another constraint influencing business enterprise in South Africa. The importance of this on a company's performance in developing the business is becoming perpetually imperative in South Africa and the continent's economy at large. Leboea (2017) recognized, likewise, that the National Development Plan (NDP) featured that South Africa is encountering a high level of skills shortage due to the low educational rate.

The issue of gender in entrepreneurship is a well-publicised limitation. The role played by women farmers in meeting the challenges of agricultural production and development is unmistakable. However, the level and power, which women hold and possess in agriculture and agricultural produce, are practically nothing. The vast majority of the rural women farmers have next to zero access to financial support in order to afford basic agricultural and production machinery for their enterprises. Although much focus and attention have been given to women, a lot still should be done. For example, they need support from the extension and advisory services as these are apparent in the level of women's production. Most agricultural extension services have traditionally generally centered more on men and their production needs while neglecting women and their production forces, thus, women tend to produce less agricultural produce because of this.

The inequality that plagued different societies, in general, added to the lack of ownership of properties, specifically, and special reference to women in South Africa who do not have equal rights to men. Men's predominance in different income creating activities influences the financial strengthening of women (Tegegne, 2012). SEDA (2012) revealed that men are altogether bound to seek after entrepreneurship than women. In spite of the fact that in South Africa, the gender gap has generally enhanced, there is still disparity seen in entrepreneurial development in the agricultural sector. SEDA (2012) further demonstrated that women are likewise more probable than men to be roused into entrepreneurship as it is demonstrated that the percentage of early-stage entrepreneurs in North West Province is very low at 4%. In the event that women do not take an interest completely in entrepreneurial activities, we lose half the potential of our society and economic development will be constrained (Runte, 2011).

There is a need to promote women based entrepreneurial index and entities through developmental programmes and creating an environment where women are really recognized and acknowledged for what they do. Well-meaning organizations have consistently created women's awards, believing that these awards encourage more women to be entrepreneurs. It is an intriguing idea for women to recognize women or even companies that try to appear encouraging and support by offering prizes.

Women's entrepreneurship program was launched in order to empower and expand women's participation by the Department of Agriculture Forestry and Fisheries (DAFF). In relation to the national Department of Agriculture, Forestry and Fisheries and other key accomplices, the North-West provincial government, in particular Rural, Environment and Agricultural Development (READ) saw the continued exclusion of women from the edge of agricultural development. This resulted in the creation of the Female Entrepreneur Award in 1999 to

empower women's livelihoods to become commercial farmers in the long run. A major focus of the AIC programme is to promote entrepreneurship development among female farmers in North West Province through commercialization of farm outputs and job creation. The female farmers who enrolled in the AIC are presented with a rubric of what is expected to be followed as expected by the provincial adjudicators and these rubrics are factors to lead female farmers to commercialization. The awards incentives and rewards from competitions are also cash and kind to promote commercialization of the winners' agricultural enterprises. DAFF (2019) stated that the awards continue to honour women entrepreneurs in the sector through this programme which recognises the efforts and contribution of women, young females and women living with disabilities for their contribution towards food security, poverty alleviation, job creation and economic growth in the sector. The programme was introduced to balance the economic gap between men and women whereby women farmers are recognized and rewarded by awards and incentives based on their efforts. Through the programme, there has been a visible increase in employment creation of both seasonal and permanent workers on the entrepreneur's farms. Their enterprises are prime examples of the strength of mentoring workers by exposing them to training; which helps them to venture into their own businesses. Chinomona and Mazirri (2015) indicated that entrepreneurial activities in South Africa have shown a gradual decline over the years compared to other developed countries. The introduction of the Female Entrepreneurship Award is to encourage entrepreneurial development among Female subsistence farmers. According to KwaZulu-Natal Department of Agriculture and Rural Development (2018), each province must ensure that there is a continuous evaluation of this progamme. It is in this light that the study evaluates the factors affecting entrepreneurship development among female farmers in the North West Province.

1.4 Research questions

The study was guided by the following research questions:

i. What are the socio-economic characteristics of the women farmers in the study area?
ii. What are the entrepreneurship activities of women farmers in the study area?
iii. What is the level of participation of the respondents to the AIC programme in the study area?
iv. What are the benefits of the AIC programme to the respondent in the study area?
v. What are the constraints faced by the respondent in the study area that hinders benefitting from the AIC programme?
vi. What are the factors that affect the commercialization of female farmers in the study area?

1.5 Aim

The aim of the study was to evaluate the factors affecting entrepreneurship development among female farmers in North West Province.

1.6 Specific objectives

The specific objectives of the study were to:

i. identify the socioeconomic characteristics of female farmers.
ii. describe the agricultural entrepreneurial activities of female farmers in the study area.
iii. establish the level of participation in the AIC programme by the respondents.
iv. determine the benefits of the AIC programme to the respondents.
v. establish the constraints that hinder respondents benefitting from the AIC programme.

vi. determine the factors that affect the commercialization of the female farmers in the study area.

1.7 Hypothesis

H_o: There is no significant relationship between respondent's socioeconomic characteristics, participation, benefits, and constraints on their entrepreneurship development.

H_A: There is a significant relationship between respondent's socioeconomic characteristics, participation, benefits and constraints on their entrepreneurship development.

1.8 Significance of the study

Women entrepreneurs have been characterized as a vital source that has stayed undiscovered and unrecognized. Women entrepreneurs create jobs, among other things, by being able to provide solutions to business, the management and organizational problems in the public just as the exploitation of business opportunities. The minority report of the number of female farmers graduating from subsistence farming to commercial farming is still at a low extent; hence, the economic impact of women cannot be overemphasized. However, there is no particular and dependable picture portraying in detail the particular effect.

Policies and programmes tend to be streamed by men and often these do not take the specific needs of women farmers into account. Thus, to create an equal opportunity between men and women entrepreneurship, programmes and schemes were created to incorporate women into commercial farming. The AIC programme introduced by DAFF in partnership with the READ is to cultivate, bolster and support female entrepreneur farmers.

The success of women entrepreneurship is a noteworthy source of knowledge, development, and promotion for both individuals and society. Rural economic empowerment programmes are helping women farmers to increase their yield, earn more and give their children a better education and healthier food. Women will generally benefit significantly from improving the position in society and promoting entrepreneurship. Monetary values placed as rewards and given to female farmers will guarantee that there is the availability of food and reduction of rural poverty among female farmers and female-headed households because women will add to both the economy and the entrepreneurial economy at large in their ability to create jobs for themselves and make for other people.

Today, women's role in society is substantially different from what it was in the past. While part of the broader thrust of the country's agrarian reform, the Department of Agriculture, Forestry and Fisheries (DAFF) continues to make efforts to address women's ingrained marginalization in the sector. It is clear that this decade-long imbalance deprives the sector of the opportunity to invest in women. This increased investment in women will certainly have social and economic spin-offs for our country. Women's inclusion in the industry and the economy's mainstream needs intense attention in order to annihilate threats to food security. This will also alleviate the horrific effects of poverty and unemployment in rural communities in particular. Empowering women is crucial, not only for the well-being of individuals, families and rural communities but also for the overall economic growth, despite their widespread presence in the world's agricultural workforce. DAFF will certainly continue to consider and promote women to participate in the sector because of their fundamental role in the field.

The need for more studies to provide empirical evidence for informed policy intervention in agriculture and women's entrepreneurship is clearly fundamental in the broader dimension. Awards Incentives and Competitions will have the necessary influence to improve the lives of women farmers who move into commercial agriculture and encourage other women farmers. As a result of the role which women play over the decades being undervalued, it is in this context that DAFF through the Female Entrepreneur Award Programme has taken up the mantle on itself to reward and recognise the role that women play in the development of the sector. There has not been any study carried out in the study area to identify the effects of participating in the AIC programme or the degree of commercialisation of the participants as well. The results of the study will add to the empowerment of female farmers, young female farmers and women with disabilities in the sector through food security, job creation, economic growth and poverty reduction in promoting awareness of women farmers in the province, and help to identify the restrictions that prevent women farmers from becoming entrepreneurs.

The Department of Agriculture, Forestry and Fisheries Female Entrepreneur Awards (DAFF FEA) programme aim to galvanize players in the sector to remain steadfast in achieving women's empowerment and growth across the value chains of agriculture, forestry and fisheries. The result from this study will identify new measures of intensifying the programme and elevating its standard to the desired quality. The result of the study will also help to identify the degree of commercialization together with the entrepreneurship development as a result of participating in AIC programme.

1.9 Limitations of the study

This study is constrained by a number of factors including the reliance on the respondents' ability to recall certain information requested. The non-availability of records and the poor

record-keeping attitude of farmers might have an effect on the quality of the data. The study focused on the encouragement of female entrepreneurship, participation in AIC programme and commercialization, which is basically an input-output relationship, requiring data to reach an acceptable conclusion. The study, hence, relied on recall data by the farmers for purchased inputs, quantities purchased, or the amount received. In some cases, approximations and price quantifications had to be made to arrive at a given data set. This was a major limitation of the study. In addition, there were some of the respondents that either had passed on or were not interested as participation in the study was voluntary.

1.10 Structure of the Thesis

The thesis is structured into six chapters. Chapter one deals with the background information on entrepreneurship, awards, incentives and competition among female farmers.

Chapter two presents the literature review identifying issues related to entrepreneurs and female farmers affecting both local and global entrepreneurship and the related theories on entrepreneurs.

Chapter three deals with the study area, a detailed discussion and explanation of the method(s) that was used for data collection and analysis. Chapter four presents the results and discussion. Chapter five deals with the inferential and the test of the hypothesis of the study. Chapter six gives the summary, conclusion, and recommendations based on the findings of the study.

1.11 Chapter summary

The chapter introduced the study on the effect of awards incentives and competition on entrepreneurship development among female farmers in North West Province, South Africa giving a comprehensive background of the agricultural and commercialization sector in the area and its connection with entrepreneurship. The statement of the problem was systematically

presented highlighting the need for the introduction of award, incentives and competition to encourage more subsistence female farmers to become commercialized. This led to the description of the six research questions that the study tried to provide answers to through six expanded objectives and three hypotheses. The rationale and relevance of the study were well articulated in the chapter and it is expected that the study will provide policymakers and agricultural extension administrators with information on strategies to implement policies and guidelines for the successful implementation of more women farmers in agricultural entrepreneurship.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a literature review. It is divided into different sub-headings. The theoretical framework entails and discusses how entrepreneur and entrepreneurship are used to enhance life, skills, knowledge and their contribution to the economy of the country in particular with special references to women farmers.

2.1 Background on entrepreneurship

This study focuses on rural South Africa entrepreneurship and the development of women farmers in the North West Province. Award incentives and competition are the methodologies used to promote entrepreneurship among women farmers. As a vital source of economic growth and job creation, entrepreneurship has gained prominence and attention across the globe. The competitiveness and growth of the economy may be improved by entrepreneurial activities (GEM Report, 2011; Kuckertz & Wagner, 2010).

Agbenyegah (2013) featured that the idea of the entrepreneur was additionally expanded amid the twentieth century to include being an inventor. Schumpeter (1947) was one of the early scholars to present the idea of innovation, which was defined as new methods, machinery, materials, organisational structures, and products to increase production and skills of users. Entrepreneurship plays an important role in creating a way especially for rural communities to be employable, providing self-employment for those who set up their own business and improving the economic status of the rural sector. Naresh, Revathy and Rao (2016) showed that

entrepreneurs in rural areas have transformed their region into hubs, thus empowering them to become urbanized.

As indicated by Agbenyegah (2013), key hypotheses that underline entrepreneurship are examined in their significance to entrepreneurship. Every theory in relevance to entrepreneurship contributes in-depth and also enhances the current literature on entrepreneurship. Some authors opined their assumptions about entrepreneurship that it is still extremely unpredictable and without looking for a clear definite explanation; however, entrepreneurship is a fundamental principle on the development of new ideas (Arif 2008; Tominc & Rebernik 2003; Van Zyl & Mathur-Helm 2007).

Entrepreneurship plays a vital role in creating a way for rural communities to be employable, providing self-employment for those people who have started their own business and improving the economic status of the rural sector. Hannafey (2003) showed that new interest in entrepreneurs and their activities has blossomed in the last twenty years. The study also showed that entrepreneurs face unique complex moral problems related to basic fairness, staff and customer relations, distribution dilemmas and other challenges. As Brenkert (2017) indicated, entrepreneurs, play an important role in society. Entrepreneurs carry out economic tasks that increase employment, create new organizations, uncover new production processes and carry out other business activities that improve the physical well-being of a given society. Entrepreneurship can be described as an innovative action that combines work, capital and know-how in business (Hannafey, 2003).

El-Namaki (1988) opined that entrepreneurship and economic advancement in developing regions of the world remain a noteworthy subject. Accordingly, Hannafey (2003) further examined in his work that the regions of the world continue to forecast job creation in the near

future and entrepreneurs might as well be called upon to take the responsibilities concerning employment issues including the agricultural sector. He proceeded further by indicating that only a few researchers recognize the link between the discussion of entrepreneurship with moral deliberations about economic justice and the need for development in the world. Baumol (1986); Hannafey (2003) recognized the contrast between two essential kinds of entrepreneurship (economic and innovation theories) in order to understand how economic development occurs. According to Schumpeter (1942), entrepreneurship may both "create" and "destroy" economic structures of the nation. Because of its global recognition as a driver for economic growth, entrepreneurship is generally an action-oriented programme (Mokaya, Sikalieh & Namusonge, 2012).

STAT SA as cited by DAFF (2013) affirmed that the agricultural sector was the largest contributor to job creation over the period of January to March 2013. This was a direct result of the Integrated Food Security and Nutrition Production Intervention (IFSNPI). Additionally, Gülçubuk (2016) stated that women farmers' competition and awards were created in Turkey in 2004. This is important because the essence of creation was to improve women farmers' knowledge and enable them to participate in social life at higher level, as well as to raise their self-confidence. The competition acted as a mediator to increase their participation in knowledge, technology, communication and marketing process of agricultural production. Gülçubuk (2016) noted that the aims of this competition can be outlined as being to evaluate the knowledge of women farmers, accessing the results of the preparation of publications for these women, raising their self-confidence, raising awareness of healthy nutrition and producing high-quality crops, creating and increasing women's entrepreneurship, even if indirectly. Hannafey (2003) supported this by saying that in a society, the entrepreneurial

innovation can also achieve huge economic growth, particularly within the agricultural industry.

2.2 Theoretical framework on Entrepreneurship in Agriculture

2.2.1 Application of the innovation theory to agricultural entrepreneurship

Agriculture is the benchmark to the physical and economic survival of human beings; therefore, their reliance on innovation and innovation systems in agricultural development is very vital. For the most part, innovation is seen as a major source of improved productivity and economic growth. Rakshit (2015) expressed that agricultural innovations are becoming increasingly important to make a sustainable, profitable and competitive agricultural enterprise. All over the world, agricultural development depends on innovation. Agricultural innovations usually come forth from the different entrepreneurial stages which include growing, processing, packaging, distribution and consumption of agricultural products. Schumpeter (1952) clarified that the capacity of the entrepreneur is to change or alter the pattern of production by exploiting a development. This may be in ways of employing an untried innovative technique for delivering a new commodity or creating an old one in a new way, opening another wellspring of supply of material or another outlet for items, or by organizing a new industry. Schumpeter (1952) further contended that anybody looking for profits must innovate. As it were, innovation is the creative thinking of an entrepreneur, while the entrepreneur functions as a change agent to make a profit. According to Hisrich and Peters (2002), the concept of innovation and newness is an integral part of entrepreneurship and it is the act of introducing something new. It is one of the most difficult tasks of an entrepreneur.

Schumpeter (1952) characterized entrepreneurs as pioneers who can act with certainty beyond the scope of recognizable reference points. He proceeded by indicating that an entrepreneur may necessarily not be one individual; entrepreneurship could be a group in which there is solidarity among them. Schumpeter (1952) allocated the role of an innovator not only to the capitalist but to the entrepreneur because an entrepreneur innovates to elevate the economy and the general population around, while a capitalist utilizes their own riches to contribute exclusively with the end goal of profit. The entrepreneur is not a person of common administrative ability, yet one who presents something altogether new and is spurred by the following:

- the desire to find a private commercial kingdom;
- the will to conquer and prove his superiority; and
- the joy of creating, getting things done or simply exercising one's energy and ingenuity.

In agriculture, the entrepreneur requires the existence of technical knowledge in order to produce new things and the power of disposal over the factors of production in the form of credit.

Chand (2015) stated that agricultural entrepreneurs are innovators and for them to carry out their innovative function, they need two things. First, agricultural entrepreneurs must have the technical knowledge to produce new products or new services and second, they must also possess the power of disposal over the factors of production.

However, his theory is faced with some criticisms that induced that the theory is based on:

- the innovator whom he regards as an ideal person;
- economic development is the result of the cyclical process;
- the cyclical changes due to innovation cannot be correct;
- regarding innovation as the main cause of economic development; and
- giving too much importance and emphasis on bank credit.

The model of the innovation theory of entrepreneurship is shown in Figure 2.1 and the influencing factor of the entrepreneurship for the innovation is shown in Figure 2.2.

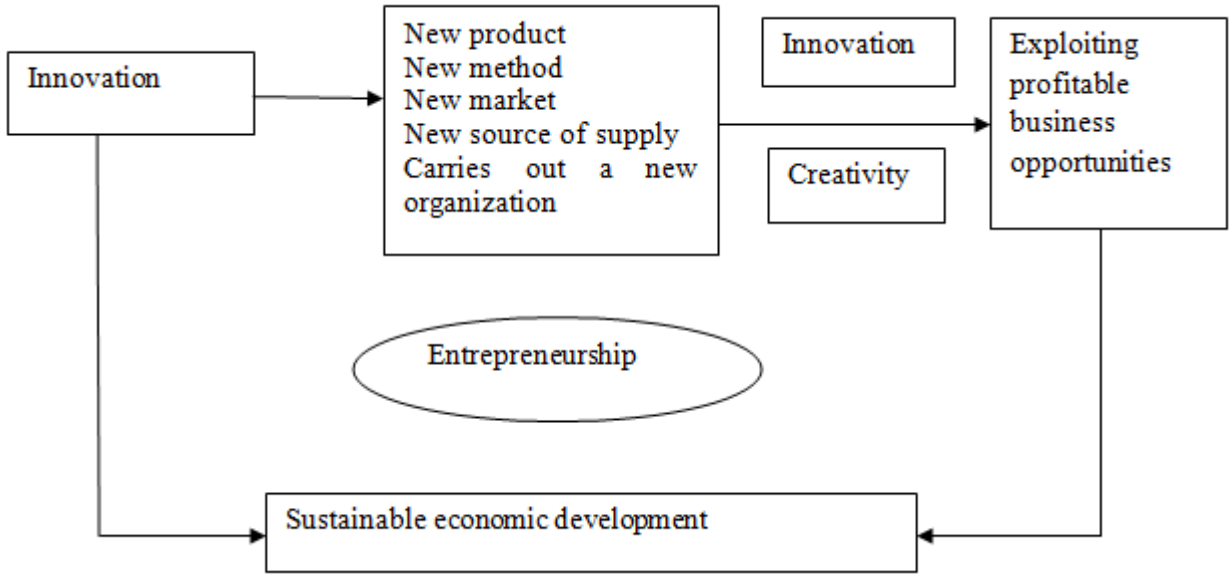

Figure 2.1 Innovation theory of entrepreneurship

Source: Bates (1993). Theories of entrepreneurship

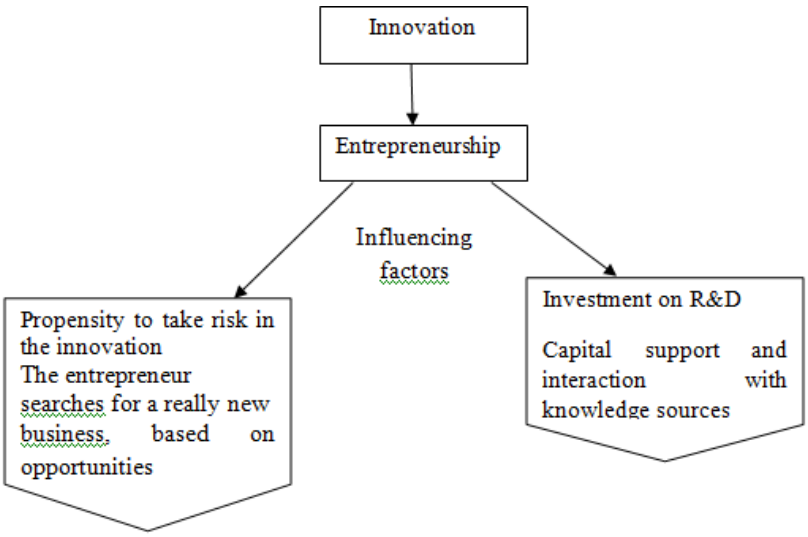

Figure 2.2 Influencing factors of the entrepreneurship for the innovation

Source: Zawislak, Borges, Wegner, Santos and Castro-Lucas (2008). Towards the innovation function

2.2.2 Risk bearing and agricultural entrepreneurship theory

Mubina (2013a) expressed that the principal function of the agricultural entrepreneur is to tolerate the risk and that production involves various kinds of risks. Nobody will bear risk unless there is an expectation of profit. It seems then that profit is the fundamental of taking the risk. Mubina (2013a) highlighted that the theory of uncertainty-bearing of profit was developed in 1921 by Prof F. H. Knight. As indicated further by Mubina (2013a), this theory highlighted that profits are the prizes for uncertainty-bearing instead of risk-taking and these are further divided into two which are insurable risks and non-insurable risk.

By taking the risk of investment for the purpose of job creation and economic upliftment, an agricultural entrepreneur considers further about the security of his business and how to guard against disasters or problems including natural hazards such as fire, theft e.t.c. Such hazards can be transferred to an insurance agency for the payment of a suitable premium for their business. The non-insurable risk is too hazardous and financially too large to take on. A non-insurable risk cannot be guarded against because insurance companies cannot afford such uncertainties. Examples of non-insurable risk that agricultural entrepreneurs could face include a sudden drop in the demand for a commodity, and the chance of specific production technology to be out-of-date in the future among others. Bates (1993) examined some imperative components of risk-bearing and agricultural entrepreneurship theory as follows:

- Risk creates profit, that is, entrepreneurs acquire profits since they embrace risks;
- More risks more profits that is, according to the risk theory, the riskier the nature of a business, the more prominent must be the benefit earned by it;
- Profit has remuneration and cost has its reward for entrepreneurs for assuming risks, Consequently, it is likewise treated like a piece of the normal cost of production; and

- Entrepreneur's pay is uncertain.

2.2.3 Theory of entrepreneurial growth in agriculture

Bates (1993) showed the work of Max Weber on how religion has a vast effect on entrepreneurial development. As per Weber, a few religions have basic beliefs to earn and acquire money and some have less of it. His theory suggests that if the belief systems of Hinduism, Buddhism, and Islam do not support agricultural entrepreneurship, in this manner the progress of agriculture is going to be affected. The route to agricultural entrepreneurial development is through the more effective dissemination of technical knowledge and the introduction of an environment favourable to agricultural production. Fitz-Koch, Nordqvist, Carter, and Hunter (2018) indicated that agriculture assumes a pertinent part in the economy and subsequently the significance of agricultural entrepreneurs in economic practice. Agricultural entrepreneurs are considered to be in charge of economic advancement, by presenting and actualizing new thoughts. Entrepreneurial growth in agriculture is brought into light through thoughts which incorporate product innovation, process innovation, market innovation and organisational innovation. The model is shown in Figure 2.3.

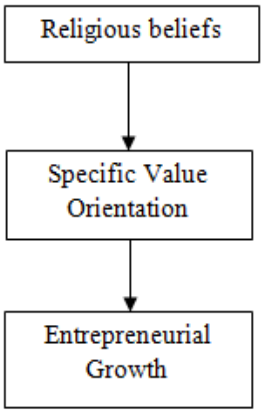

Figure 2.3 Max Weber's Theory

Source: Bates (1993): Theories of entrepreneurship

2.2.4 Economic theory and agricultural entrepreneurship

The essential promoters of this theory were Papanek and Harris (1962). They depicted economic motivating forces as the principal powers for entrepreneurial activities in any country. For entrepreneurial and economic growth in agriculture, a favourable agricultural business environment must be created. Baumol (1986) said that the initiating entrepreneur was responsible for remarkable economic growth during the nineteenth and twentieth centuries, while imitative entrepreneurship today leads to economic progress in developing countries. Bates (1993) identified some elements in the entrepreneurship economic theory as being the following:

- The availability of bank credit;
- High capital formation with a good flow of savings and investments;
- Supply for loanable funds with a lower rate of interest;
- Increased demand for consumer goods and services;

- Availability of productive resources;
- Efficient economic policies like fiscal-aid, and monetary policies; and
- Communication and transportation facilities.

2.2.5 Agricultural entrepreneur and the exposure theory

Exposure to new thoughts and opportunities for creativity and innovation will prompt the making of new ventures in the agricultural sector, and also lift the economic growth of a nation (Bates 1993). Agricultural education has assumed an exceptionally critical role in uncovering the Indian entrepreneurs to western ideas driving them to entrepreneurship (Bates 1993). Agricultural education has indeed contributed a lot through classroom teaching, experimental learning and through leadership training from extension workers (Bates 1993). Exposure and access to education is a vital factor in guaranteeing that farmers, (in particular female farmers) have some level of exposure to resources.

Figure 2.4 illustrates the entrepreneurship theory of exposure.

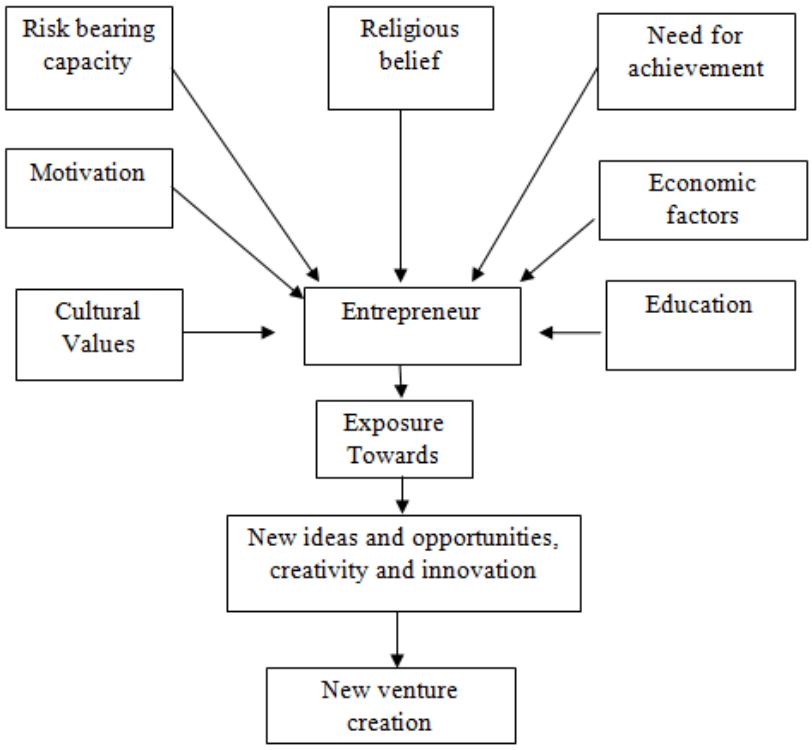

Figure 2.4 Entrepreneurship Theory of Exposure

Source: Bates (1993): Theories of Entrepreneurship

2.2.6 Agricultural entrepreneurship growth in the political system theory

The role of the government in the agricultural entrepreneurial process is for the provision of resources and enabling environment. Bates (1993) proposed that the creation of adequate infrastructures, favourable laws and taxation system, provision of incentives and subsidies, security to entrepreneurs will encourage people towards agriculture. Governments can likewise build supporting systems for potential entrepreneurs. Agricultural industries will prosper better when the political system and structure is appropriate and is put in place. Holt (2004) observed that the Japanese entrepreneurs prospered on the grounds that their political system was able to incorporate different sectors such as the industrial and agricultural sectors, large, small and handicraft industries, labour intensives and capital-intensive technology, traditional and modern

social structure. It can be said that political structure is the unmistakable factor in the entrepreneurial growth of the country. This is illustrated in Figure 2.5.

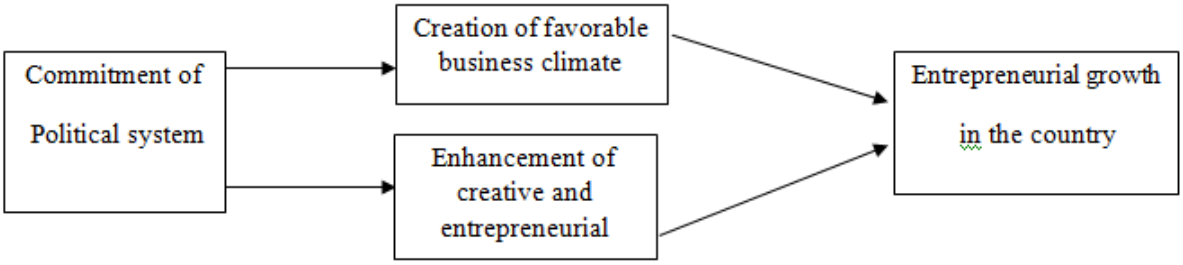

Figure 2.5 Political system theory of entrepreneurial growth

Source: Bates (1993): Theories of entrepreneurship

2.2.7 Summary of the theoretical framework of entrepreneurship in agriculture

The multi-dimensional concepts of entrepreneurship were discussed using six theories of entrepreneurship in relation to agriculture. The most important was Schumpeter's theory of innovation which showed the importance of innovation in an agricultural entrepreneur. Schumpeter stressed the innovativeness or creativity of the individual as a factor in determining entrepreneurship. Max Weber highlighted the religious belief system which is part of a culture. He also showed the extent and great influence it has in determining the individual's behaviour especially in communities where religion has a stronghold on beliefs to earn and acquire money, and where religious belief systems of such as Hinduism, Buddhism and Islam do not encourage entrepreneurship.

Bates (1993) pointed out that theorists looked at the entrepreneur and entrepreneurship based on their perception and can therefore only give a limited view of the entrepreneurial phenomenon. Different factors that create entrepreneurship are integral and not additive. Bates (1993) concluded that entrepreneurship is the result of complex and diverse combinations of socio-

economic, psychological and other factors and that each theorist's views and ideas are interdisciplinary and influenced by various factors. To be an entrepreneur, an individual must be passionate, motivated, committed and sincere to the external environment they find themselves.

2.3 Conceptual framework of the study

The concept of entrepreneurship in agriculture could be seen from different angles. Entrepreneurship is a growing force needed for the development and enhancement of any society's economic growth. For this study, agricultural entrepreneurship centers on the theories of innovations as related to agricultural entrepreneurship, the risk-bearing as related to agricultural entrepreneurship, entrepreneurial growth in agriculture, the economic growth as related to agricultural entrepreneurship, exposure in agriculture, and the entrepreneurship growth in the political system. Therefore, the conceptual framework adopted for this study is based on the theories reviewed as shown in figure 2.6.

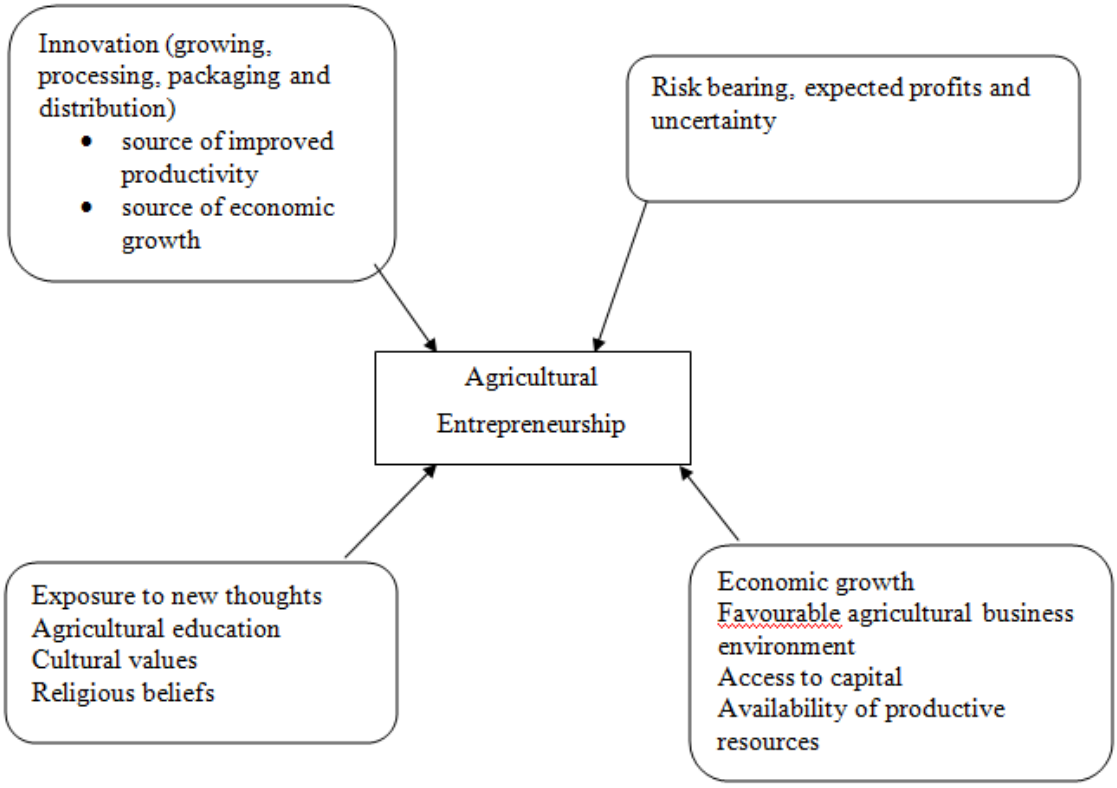

Figure 2.6 Conceptual framework of the study on entrepreneurship

Source: Author

2.4 Lessons on women entrepreneurship globally

2.4.1 India

India's women entrepreneurs are a growing business force; entrepreneurship is regarded as one of the most important contributors to society's development in India. Mahajan (2013) pointed out that India was among the worst-performing countries in the area of women entrepreneurship in a global survey of gender-based entrepreneurship, published by PC maker Dell in July 2013 with the assistance of the consulting firm Global Entrepreneurship and Development Institute (GEDI) based in Washington. The entrepreneurial role of women in large-scale industries and technology-based companies is currently limited. Furthermore, women's participation is very low even in small-scale industries. Mahajan (2013) stated the small-scale industries' third all-

Indian census that women showed that women-owned only 10.11% of micro and small businesses and women manage only 9.46%. While the number of women running their own business is increasing globally, women continue to face enormous obstacles to their business growth, such as lack of capital, strict social constraints and limited time and skills.

In any case, Khokhar and Singh (2016) opined that women entrepreneurship is picking up significance in India in the wake of economic liberalization and globalization. Tripathi (No Date) expressed that India has risen as the best place for women entrepreneurs to begin a business with a high level of optimism on various factors that are vital to judging business growth. Tripathi (N. D) further highlighted that women entrepreneurship in India expects 90% growth in their business over a time of five years compared with 24% and 50% development in business expected by an entrepreneur in the UK and the US respectively. The policy and institutional framework for developing entrepreneurial skills, providing vocation education and training have extended the skyline for economic empowerment of women. Nevertheless, women constitute only one-third of the economic enterprises.

There are successful entrepreneurs in India in both the social and economic sectors. The Indian government also introduced the National Skills Development Policy and National Skills Development Mission in 2009 to provide the emerging workforce with skilled and vocational training, and entrepreneurship. Nevertheless, it should be noted that the development of entrepreneurship and skills training is not the government's sole responsibility. Other stakeholders must, therefore, take responsibility. The growing presence of women as entrepreneurs in the business sector has changed the nation's statistical attributes of business and economic growth. Companies owned by women take on a gradually dynamic position in society and the economy.

Apo (2007) revealed that in India, Non-Profit Organizations (NPOs) are undertaking women entrepreneurship. WEI (2016) noted that women agricultural entrepreneurs in India are now an innovative platform that helps women entrepreneurs to be progressively free and goal-oriented, and are becoming frontiers in job creation, poverty reduction and a powerhouse of economic growth.

Mahajan (2013) also showed that the significant constraints faced by women entrepreneurs in India include conflicts between work and domestic commitments, gender gaps in education, lack of funding, legal constraints in family law, heavy household responsibilities, lack of support for families, lack of capital, lack of trust and faith, and lack of proper public/private institutions. Besides, Mahajan (2013) proposed a few factors to increase the role of women entrepreneurs in India. These are infrastructural setup, personality development, self-improvement groups of women entrepreneurs, business development training programmes, and access to financial programmes.

2.4.2 Malaysia

In Malaysia, women entrepreneurs are becoming a force to be reckoned with, especially as of late because of the acknowledgement that they are the key contributors to the economic growth of the nation. Ming Yen Teoh and Choy Chong (2014) demonstrated that the number of women entrepreneurs in Malaysia has since expanded because of the help and direction given by the government, private sector and non-governmental organizations over the previous decade. The census in 2010 highlighted that 645,136 dynamic Small Medium Enterprises in operation, 127,091 (19.7%) are owned by women (Hamzah, 2012), contrasted with 82,911 (16%) in 2005 (Zamira, 2013). As indicated by the Women Entrepreneurs Network Association (WENA 2013), agricultural enterprises are one of the female-owned enterprises after the services sector in Malaysia.

Bernama (2011) has shown that women entrepreneurs are helped to take advantage of the programs and support facilities provided by Malaysia's various ministries and government agencies. Ming Yen Teoh and Choy Chong (2014) further showed that the Department of Women's Development and Malaysian Trust Initiatives provided more than 3000 women with skills training and entrepreneurship programs under the 2010 budget in order to reduce poverty, produce more quality and productive women entrepreneurs and increase employment opportunities for women in Malaysia (Ming Yen Teoh & Choy Chong, 2014). The Teman 1Azam (Companion with 1Resolution) also provided 946 Malaysian women entrepreneurs with a grant of RM 4.7 million (USD 1.5 million) (Bernama, 2010).

In addition, Piacentini (2013) noted that there are a number of problems facing Malaysian women entrepreneurs, such as cultural barriers, lack of spousal support, gender inequality, lack of trust, weak social and business networking, little legislation to support working families, neglected women entrepreneurs in the cottage industry, domestic aid and home childcare.

The Federation of Women Entrepreneur Associations Malaysia (FEM) and the National Association for Women Entrepreneurs of Malaysia (NAWEM), alongside a few bodies, representing particular population groups and technical interests, provide national platforms for women entrepreneurs to draw in with the government in both the improvement of strategy and conveyance of programmes. Mutalib, Arshad, Ismail and Ahmad (2015) observed that women entrepreneur promotion is encouraged by the Ministry of Women and Social Affairs and the Women's Small-Medium Enterprise Association of Malaysia (WSMEAM). The Malaysian government continues to spend a huge portion of entrepreneurship on women every year. Consequently, the number of women entrepreneurs in Malaysia has increased in the last three decades due to the emphasis on industrialization and growing interest in privatization, self-

employment and business-oriented employment. Rashid, Ngah, Mohamed and Mansor (2015) stated that the Malaysian government provides incentives for growth in the female entrepreneurial sector. This encourages the nation to reduce imports and increase exports, thereby creating favourable economic growth. While many governmental and non-governmental programmes have been developed to support entrepreneurship, some have ended up being inappropriate to the necessities of women entrepreneurs. In this unique situation, programmes with an exclusive focus on women remain important until such a period when issues relating to gender and women have been completely mainstreamed. Amanah Ikhtiar Malaysia (AIM) is widely regarded as the best programme promoting entrepreneurship among women in Malaysia. The key elements identified to have supported the achievement of AIM include its specific focus on the needs, circumstances and concerns of women entrepreneurs.

This is especially reflected by the spotlight inside its microcredit programme on the formation of women's groups. These do not only provide social capital but are also a source of peer support through weekly meetings of the borrowers and provision of pathways for women who took advantage of micro-enterprise through education, training and networking. In planning women entrepreneurship programmes, the government and other relevant agencies should ensure that the programmes are suitable for women entrepreneurs by taking into account their particular backgrounds. Moreover, relevant business associations and women entrepreneurs should be involved earlier in the identification and design stages of programmes.

2.4.3 Philippines

In the Philippines, the main case of effective support that put women's entrepreneurship at the centre of governmental agendas was the previously mentioned Great Women's Project (GWP). With funding from the Canadian Government, the GWP played a key role in strengthening the

capacity of the Philippines Commission on Women and its predecessor to mainstream women's economic empowerment, including entrepreneurship, within national and local government policies and programmes. Government of Canada (2017), in the Philippines, where female labour force participation, as well as unemployment rates, are observed to be increasing, entrepreneurship can offer new opportunities for women to generate their own income, and help others as they do it. The Government of Canada (2017) document revealed that Canada has a long history of joining forces with the Philippines on gender equality. Some portion of this organization saw the implementation of The GREAT Women Project (Gender Responsive Economic Actions for the Transformation of Women), to provide support for women to start businesses and obtain better-paying jobs.

The Women's Business Council of the Philippines (WBCP) further brought together the country's top women business leaders and entrepreneurs to advocate for their interests. The Bureau of Gender Equality, International Labour Office, and Geneva Switzerland (Government of Canada, 2017) named it among those with best practices in "Enabling Women's Businesses to Flourish" globally.

As indicated by the 2014 Global Gender Gap Report by the Economic Forum, the Philippines is the ninth most gender-equal nation in the world (Balea, 2015). The report showed that it is imperative to engage women entrepreneurs, improve their access to ideas, opportunities, and resources to promote entrepreneurship. The significance of this is the "Women Employment and Entrepreneurship Development (WEED)" scheme of the Department of Labour and Employment (DLE) which aims at providing programmes that include "Entrepreneurship Development Training (EDT) and Appropriate Skills Training (AST)" amongst women (APO, 2017).

2.4.4 Indonesia

Hani, Rachmania, Setyaningsih and Putri (2012) expressed that the aim of entrepreneurship in Indonesia is to enhance the role of small industry and increase business and working opportunities. Women in Indonesia are growing the SME sector very rapidly and their ability to run businesses has led them to succeed in their careers. Therefore, women see opportunities to innovate and participate in the mainstream economy. The SMEs are an essential wellspring of economic development, job creation and poverty alleviation (Gunawan, Wahdan, van den Herik, Kornarius & Van de Walle, 2012). The role of SMEs in Indonesia is extremely noteworthy in light of the fact that over 90 % of business units in Indonesia are SMEs. Gunawan *et al*. (2012) expressed that the SMEs in Indonesia likewise contribute 93 % of the employment from the total labour force.

Sunanto, Gunawan, Gunawan and van Dijk (2017) opined that women's entrepreneurship is directly linked to the Millennium Development Goals-poverty reduction, gender equality and women's empowerment. In the face of the economic crisis, Indonesian SMEs are seen to be relatively stronger. Many of these Indonesian SMEs are owned by women. The participation of women in entrepreneurship around the world has a significant impact on job creation and innovation. If women are not actively involved as entrepreneurs, nearly half of the world's population will be lost (Kelley, Brush, Greene & Litovsky, 2013).

It is estimated that about one-third of companies operate in the formal sector by women entrepreneurs. The huge number of women in Indonesia is an extremely intense source of entrepreneurs who can contribute more to the Indonesian economy. This phenomenon is generally comparative around the world. According to entrepreneurship information, about 30% of women entrepreneurs are in Indonesia, 32% in Korea, 34% in the Philippines and 38%

in the United States (APEC, 1999). Women entrepreneurs make a significant contribution to Indonesia's success in SMEs.

Women face abundant challenges in some areas, such as cultural resistance to accepting them as an active role in business, even before becoming an entrepreneur. They also face other challenges when they start a business. In addition, one of the challenges in understanding women's entrepreneurship is the lack of reliable and valid data (Ramadani, 2015). In this way, the investigation of women business companies is supported. The Indonesian BusinessWomen's Association (IWAPI) and the Women's Small Business Network (WsSBN) provide important vehicles through which women entrepreneurs engage with their counterparts and strengthen their own capacity.

2.4.5 Nepal

APO (2007) stated that the Women Entrepreneurship Association of Nepal (WEAN), a Non-Governmental Organization (NGO), empowers women through "training, marketing assistance, credit and other extension services". Bushell (2008) expressed that in Kathmandu, "the increasing number of women entrepreneurs are promoting economic growth through their individual endeavours" and this has prompted the contribution of women towards addressing food security. Bushell, (2008) stated that entrepreneurship for women is regularly observed as a voyage out of poverty and a walk towards fairness. This is in spite of the fact that previously, women's enterprise in a significant part of the developing world has gone little past casual business adventures, which guarantee everyday survival for women and their families. In Nepal, implanted structural and socio-cultural limitations challenge women entrepreneurs and make it difficult for them to understand their potential as pioneers in business.

Dwibedi (2015) showed that comparatively, little information has been available about the problems faced by women in Nepal starting businesses, whether in the light of gender disparities or the kinds of interventions needed to support women in developing ventures where an increasing number of women entrepreneurs are promoting economic growth through their individual endeavours.

According to the Beijing affirmation of 1995, the government embraced the talk of women's participation and presented various gender-based initiatives, expanded microfinance support systems and opened up the presentation of gender policies and programs in many government bodies and non-governmental organisations. Measures to address gender-specific barriers to women's entrepreneurship include gender equity measures, such as equal access for men and women to education and skills training in business management, administered under the 10th Five-Year Plan. In any case, the Maoist Party of Nepal's vicious revolt for overall political precariousness ensured that the way to order the act was inaccessible as even men made several gains under the act.

2.4.6 Pakistan

Apo (2007) featured that women entrepreneurship has gotten much consideration in Pakistan. According to the Trade Development Authority of Pakistan (TDAP, 2016), the facilitation of women entrepreneurship has been instrumental in entrepreneurship for many years. The principal aim is to help support women entrepreneurs in meeting the requirements of local and international marketing through promotions and opportunities for aspiring women entrepreneurs to expand and grow. From the perspective of gender equality, Pakistan is a country in which patriarchal customs and practices appear to be firmly integrated into society and the workplace (Syed, Ozbilgin,

Torunoglu & Ali, 2009). Syed (2010), however, suggested that the recognition of women as employees and business owners is gaining ground despite these challenges.

Pakistan has one of the least rates in the realm of female participation in economic activity. "Contrasted with Iran and India, where female labour force participation rate for females aged 15 and older is as low as 38.6% and 34% respectively, Pakistan's female economic activity rate lags behind at 32.7%" (UNDP, 2007). According to the Human Development Report of the United Nations, the vast majority of economically active women in Pakistan work in agriculture (65%), followed by services (20%) and industry (16%).

However, there are some pieces of evidence of improvement in women's participation in economic activities, regardless of these challenges. Arif and Sheik (N D), for example, noted that the number of women working in Pakistan increased from 1.8 million in 1973 to 5.9 million in 1997-98. In 1981, the participation rate of women in the labour force (raw, for all age groups) was 2.1%. By 2005-2006, it increased to 13.3% (FBS, 2013a). In addition, the rate of female unemployment in Pakistan fell from 16.5% in 2001-2002 to 8.4% in 2006-2007. However, the rate is still significantly higher than the 4.5% rate of male unemployment, indicating that women are less successful in securing jobs than men (FBS, 2013b; IFC, 2007).

It may be noted that female economic activity in Pakistan is mainly concentrated in agriculture (65%) followed by services (20%) and industry (16%) (UNDP, 2007). Pakistan is a signatory of the Millennium Development Goals, thus affirming its commitment to empower women and eliminate gender inequality by 2015 (Subohi, 2006). Pakistan's Small and Medium Enterprise (SME) Policy 2007 states that special attention will be given to women entrepreneurs and other disadvantaged groups. The policy aims to increase the share of women-owned SMEs to 6%. As indicated by the Economic Census of Pakistan, women-owned businesses represent about 2.4%

of 3.2 million enterprises in Pakistan (FBS, 2013a). The majority of the "women-owned businesses are really small, that is, with a turnover of less than Rs1 million and/or investment less than Rs0.5 million" (FBS, 2013b). SMEs are estimated to represent more than 80% of the non-agricultural labour force in Pakistan (SMEDA, 2005).

2.4.7 Ghana

Dovi (2006) in his work revealed that women-controlled businesses in Ghana are often small. Women's participation in government-sponsored trade missions is usually quite minimal. He notes that in Australia and Canada, the usual participation by women is in the area of 3-4%. The Ghana Association of Women Entrepreneurs (GAWE) organized the Global Women Entrepreneurs Trade and Investment Forum in order to address a portion of these issues in Africa. In addition, approximately 80% of women-owned companies are stuck at the micro-level. They cannot extend as they lack properly coordinated support, cheap and long-term credit and adequate access to new technologies (Dovi, 2006). According to the World Bank's estimates cited by Dovi (2006), the majority of companies in Ghana, which account for 70% of the country's employment fall into the categories of micro, small and medium-sized enterprises, ranging from agricultural activities, agribusiness, light manufacturing, such as clothing, textiles and crafts.

As the International Finance Corporation (IFC 2007) indicated, women, make up approximately 50% of Ghana's workforce. The lion's share is generally engaged in small-scale ventures, suggesting that gender parity in economic activity could account for as much as 2.5-3 % of Ghana's current total output. It is assessed that approximately 80 % of women in Ghana carry out different economic activities and predominate in the economy's informal micro-small to medium-sized agriculture, manufacturing and services sectors. Their contribution to economic

growth and development is not adequately represented, because the majorities of their activities are in informal low areas and are essentially subsistent. Mumuni, Insah and Bowan (2013) showed that women make up more than 70% of entrepreneurs in micro and small businesses in the informal private sector, which contributes significantly to national income. However, these authors revealed that women's contribution to economic growth and development is not sufficiently addressed, given that most of their activities are in informal low areas and are essentially subsistence.

A substantial number of SMEs in Ghana belong to women, and despite their contribution to the country's economy, this company has faced various challenges. In Ghana, men play an important role in creating and managing SMEs. Abor and Quatey (2010) said 90.9 % of SMEs are in the informal sector and about 70 % of these organizations belong to women. The importance of women's contribution to the Ghanaian economy and the development of the nation cannot subsequently be downplayed.

2.4.8 United States of America (USA)

Hercorner (2016) showed that in the United States of America, starting from 2017, it was estimated that there are currently 11.6 million (11,615,600) women-owned companies. These employ approximately 9 million people (8,985,200) and produce more than $1.7 billion ($ 1,663,991,700,000) in income and women entrepreneurship (American Express, 2017). According to the United Nations (2014), women were not fully involved in the first flood of technological entrepreneurship in the 1970s, but regularly took on a supporting role. Today there is another influx of entrepreneurship based on technology, and women participate at unprecedented rates.

Changes in education and innovation have added to the growing number of women seeking professions and entrepreneurial opportunities in the field of innovation. A second clarification

behind the increase in women entrepreneurs is the growing number of women in innovation-based fields who can provide the following individuals with good examples and guidelines. Subsidy sources are also beginning to open more in innovation-based fields to women entrepreneurs. Much of this progress has been driven by state-and federal-level projects. For example, a segment of these, the NSF ADVANCE Programme, is specifically aimed at women.

Ahl and Nelson (2011) expressed that the U.S. unquestionably has a long tradition of supporting small businesses – the U.S. Small Business Administration (SBA) was created already in 1953, but there were no special programmes for women. In 1975, a number of women entrepreneurs in the U.S. formed the National Association of Women Business Owners (NAWBO). As a result of the association's successful lobbying, in 1979 President Carter created the Office of Women's Business Ownership in the SBA (Ahl & Nelson, 2011). Shortly thereafter, special loans for women were created, as well as rules that a certain proportion of public procurement is to be awarded to women's businesses (Ahl & Nelson, 2011).

In addition, the National Women's Business Council (NWBC) was set up in 1988. The SBA appoints its 15 people and the U.S. president appoints its chairman. The NWBC advises Congress, the president and the SBA on promoting entrepreneurship for women. Therefore, NWBC is a publicly appointed lobby. People receive virtually no remuneration for their work. In 1988, the Office of Women's Business Ownership was also responsible for specific programs for women in companies run by 108 Women's Business Centers (WBC) throughout the United States. These centers are independent of the federal government and are subsidized by the SBA. They continue to operate as non-profit and are largely financed by private donations. They offer entrepreneurship courses, networking events and other programmes to support women entrepreneurs. They have a rare commitment to support women who are financially and socially

disadvantaged. Many of these centers also administer the certification required to enable women to seek government contracts under the specific quota for women, i.e. the percentage of public contracts reserved for women's businesses. In order to qualify, a company must be owned by a woman and operated by a woman at least 51 % (Ahl & Nelson, 2011).

OECD (2004) demonstrated that in the USA, 6.4 million independently employed women provide employment for about 9.2 million individuals and make noteworthy sales. The gauge is that with the quantity of independently employed females in the USA, they could add to alleviating unemployment stigma by an extra 15 million people they can employ. Stengel (2016) in his work found that women own 36% of all businesses in the USA and this was recorded as a jump of about 30% from the record of 2007. Moreover, women-led businesses in the USA developed by 4% between 2008 and 2014 and the number of firms have increased by 32%.

Moore (2018) pointed that women are a force to be reckoned with in American business, owning more than 12.2 million businesses across the nation, utilizing over 14.8 million people and generating more than $2.4 trillion in sales, as indicated Small Business Administration. About 58% of those women entrepreneurs predict their revenues increasing in the next fiscal year, up from 44% in 2017, according to a new study by Bank of America. This signals a rise in the optimism of women-owned businesses. The study found that 56% of women with their own businesses plan to grow in the next five years and 21% plans to hire more workers in the coming year. Not only are these women optimistic about their own businesses, but about the economy as a whole. About 49% expect their local economy to improve and 48% expect the national economy to improve in the next year. Both of these percentages are up by double digits since 2016.

2.4.9 Canada

In Canada, Ijatuyi, Modirwa, Oladele and Mabe (2017) indicated that there are more than 821 000 Canadian women entrepreneurs and that they contribute to the economy by over CAD 18 109 million each year. This contribution has a general impact on the country's improvement by creating jobs and more jobs. The Government of Canada (2018) believes that it is essential to promote diversity and inclusion in order to create an economy that works for everyone. Women's full and equivalent interest in the economy is fundamental to the future intensity and prosperity of Canada. Through the system, the Canadian Legislature supports women entrepreneurs in setting up and creating world-class organizations that can compete and win on the world stage, contribute to financial development and create great jobs for the working class. Despite all these efforts, it is revealed that women entrepreneurs and women-driven organizations still face the following difficulties. Theses include:

- Approximately 16 % of small and medium-sized enterprises are majority women-owned;
- Only 10 % of high-growth firms are owned by women; and
- About 8 % of women-owned businesses export.

Women-led businesses also face barriers to accessing capital. The government of Canada (2018) demonstrated that women entrepreneurs are less likely to seek debt and equity financing and are more likely to be rejected or receive less money. The Women Entrepreneurship Strategy is based on four key action areas to address the challenges women entrepreneurs face as they move through the phases of business development: helping women-led businesses grow, increasing access to capital, improving access to federal business innovation programming, and enhancing data and knowledge.

Young (2017) additionally demonstrated that "women in Canada are more likely to open their own businesses than in any other nation. Canadian women are starting businesses at a higher rate than their counterparts in all other G20 countries. Canada has seen a surge of entrepreneurship in our economy over the last 20 years, and women have been at the forefront, launching businesses at rates that often outpace men". Young (2017) also showed that, in terms of start-up and running companies younger than 3.5 years, they have now moved from third internationally to first place. That is 13.3% of Canadian women compared to 10% in 2014. She added that it is imperative to acquire knowledge in women's entrepreneurship to fully understand the contributions of women to the economy and leadership, especially in view of some of the obstacles they face in traditional work. Entrepreneurship is another way for women who have the skills and abilities to deal with their own safety and families.

Young (2017) also pointed out that the majority of female entrepreneurs are employers (both in the early stage and in established companies). Moreover, the information shows that, despite the expectation of employment growth for established female (and male) entrepreneurs in the future, early-stage female owners expect less employment growth than the men-a pattern that applies to Canadian female entrepreneurs and other nations. Women entrepreneurs are very diverse and should be supported and tutored to develop. Some women seek extremely high development, some run profitable organizations that add to local economies, and others balance work and family. For the most part, these are extraordinary ways to contribute to the economy and the basic parts of the image.

2.4.10 Germany

In Germany, there are 1.03 million women-owned companies. The average turnover of women's business was around 522 000 Euros. This record shows that around 2 million employees have

contributed and worked (Kay, Günterberg, Holz & Wolter, 2003). Ganzerla (2008) showed that in international GEM data on women's entrepreneurship, the percentage of business owners in Germany is 9.71 for men, compared to 4.68 for women. The gender gap is higher in entrepreneurship at an early stage (5.79% for men compared to 2.58% for women) and lower in established businesses (3.92% for men compared to 2.10% for women). Further data from Kelley, Baumer, Brush, Greene, Mahdavi, Cole, and Heavlow (2017) reported that Germany shows that women start businesses at an older age than men; they tend to run smaller businesses with little or no intention of growth, and they start a business with less financial capital than men and tend to rely on support from family and friends. Women also have less self-esteem in their capacity to be entrepreneurs and have a higher fear of failure.

Supporting women's entrepreneurship is the German government's reasonable policy objective, which has also focused on increasing the number of women entrepreneurs by 40 %. Several ministries through the National Agency support this policy objective for Women Start-ups (BGA), which provide services for women's entrepreneurship in general and in certain sectors such as science and technology (Ganzerla, 2008). Furthermore, in 1997, the National Female Network for the Promotion of Start-ups (Gründerinnenforum) was moulded to help female entrepreneurship by giving trade of involvement, characterizing women’s training needs, creating explicit ventures (for instance on new money-related models), just as giving system and campaigning openings at the national and regional level.

Women’s entrepreneurship in Germany is growing, alongside the increasing share in the overall labour force. Small entrepreneurs (that is self-employed businesspersons) account for 3,744 million in both West and East Germany, 28.5% are women. The 1990s have seen a better than expected increment for women start-ups, although the gender gap remains, and we can still

observe differences between former West and East Germany. Welter (2006) showed that in West Germany, female entrepreneurship has been rising gradually, yet consistently. She further featured that from 1991-2003, the total former West German female labour force (including self-employed persons) increased by 10.7%, male labour decreased by 6.3% whilst female entrepreneurship increased by nearly 29.6%, which is considerably higher compared to the 13.5% increase in male entrepreneurship.

Nowadays, women entrepreneurs account for 6.7% of all West German female labour force and 27.9% of all entrepreneurs. On the other hand, women still constitute the majority of all family help in small enterprises (Welter, 2006). In former East Germany, total female entrepreneurship has increased considerably by 85.7%, amounting to 182,000 (men: 401,000; + 60.4 %) in mid-2003; but this growth started from a very low level with 98,000 women entrepreneurs and 250,000 male entrepreneurs existing in 1991(Welter, 2006).

In any case, the positive development of women's entrepreneurship went hand in hand with an overall loss in female wage employment, which decreased by 21.6% to 2.7 million (Welter, 2006). This seems to show a push towards entrepreneurship, particularly as women were the first to be terminated and the last to discover new work after change began. Then again, the share of female entrepreneurs to all entrepreneurs in former East Germany has been high since the reunification averaging 28% in 1991 and 31% in 2003, which also can be attributed to the tradition of a high labour participation of women in the former GDR and not only to their rising unemployment after 1991(Welter, 2006).

2.4.11 United Kingdom (UK)

Entrepreneurship among women is great economic strength in the UK. Women represent a growing proportion of the self-employed, with approximately 26% recorded. This rate is also an

important growing part of the population of small businesses. It can, therefore, be concluded that women can generate significant sales and jobs for themselves and others (OECD, 2004). About 25% of micro and small companies are owned by women (SBS, 2001). PROWESS (Promoting Women's Enterprise Support), a trade association of organizations and individuals who support women in starting and growing businesses in the United Kingdom hailed the current position of the government as one in which women are firmly placed at the center of the debate on productivity. This recognizes the contribution of women business owners to the overall long-term vigour of women business owners (Forson, 2006).

Yan and Yan (2015) said that the market opportunities of individual entrepreneurs to start a small business and small business behaviours often reflect individual entrepreneurs ' wills and intentions. Agbenyegah (2013) examined that the entrepreneur remains at the center of new business creation so that entrepreneurs use knowledge to create potential wealth through unique opportunities and innovative processes. Liang and Dunn (2008) showed that entrepreneurs create and build renewed innovative values and perceived business opportunities by establishing a new business. Thindisa and Urban (2018) pointed out that entrepreneurship is a non-stop procedure. The model in Figure 2.7 links entrepreneurial motivations, opportunities for entrepreneurship and external conditions. It is expected that cognitive factors are positively linked to entrepreneurial opportunities and are moderated by environmental or exogenous conditions (Kuckertz & Wagner, 2010).

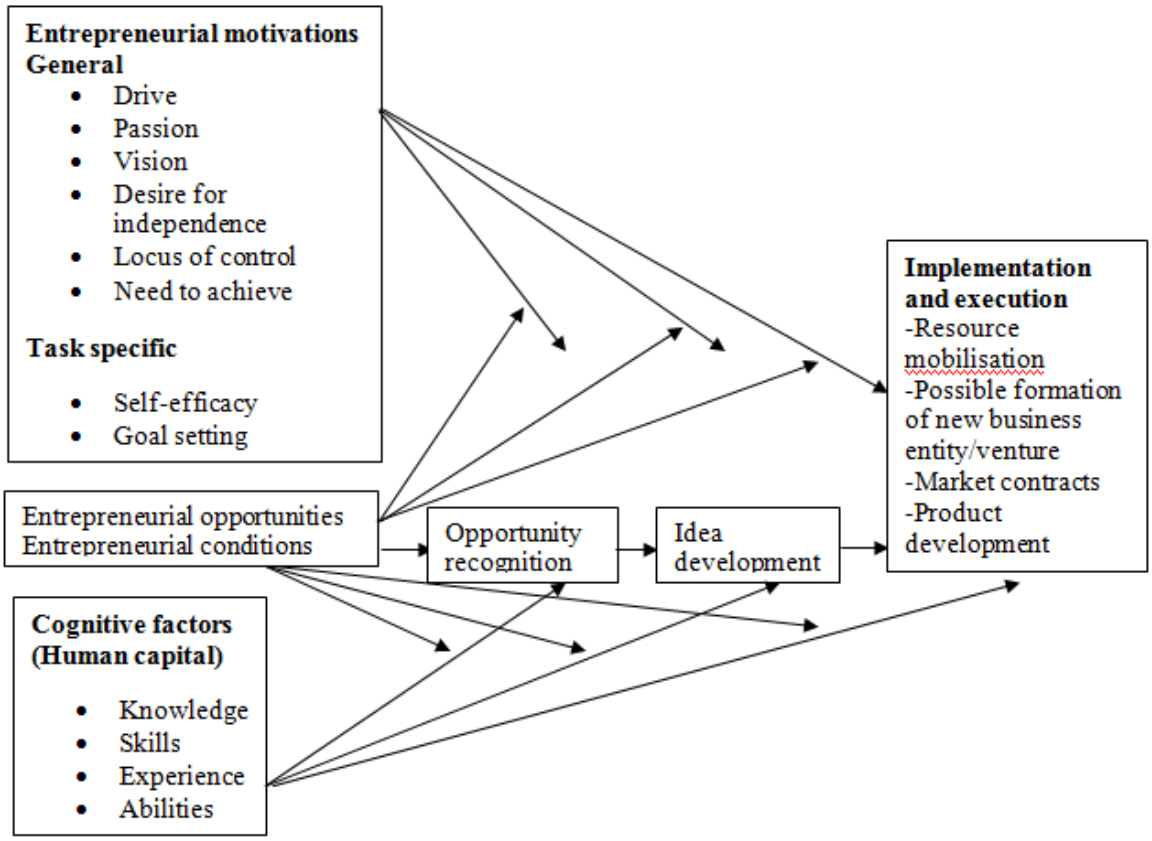

Figure 2.7 Entrepreneurship motivation and entrepreneurial process

Source: Thindisa (2014)

2.5 Characteristics of the entrepreneurs

Seth (2016) mentioned the characteristics and properties that portray an entrepreneur. An agricultural entrepreneur is somebody with the final aim of business success, economic growth and development. Seth's (2016) study recorded ten qualities of a successful entrepreneur. In spite of the fact that there is no one size fits all theory of entrepreneurship, a couple of guidelines may help just as to give a few bits of knowledge. These include:

- An entrepreneur is a passionate and motivated individual;

- An entrepreneur is a risk-taker that is they are ready to dive deep into a future of uncertainty. Successful entrepreneurs are willing to risk time and money on unknowns by keeping resources, plans, and bandwidth to deal with the unknown certainties;
- Entrepreneurs are adaptable and flexible;
- Entrepreneurs are hard-working disciplined, dedicated and always have a strong belief; they believe in themselves;
- Confidence and dedication to their project;
- Entrepreneurs understand what the product is offering and it's market;
- Entrepreneurs are good at money management. Successful entrepreneurs utilize wisely the capital and resources they have. Seth (2016) stated that successful entrepreneurs or a successful businessman keep a complete handle on cash-flows as it is the most important aspect of any business; and
- Entrepreneurs are about building a business from scratch while managing limited resources. They are also known for having networking abilities including experienced mentors as the key characteristics of successful entrepreneurs.

The AIC programme gives rise to mentoring and encouragement. Seth (2016) concluded that entrepreneurs are prepared to take the exit when it comes to it and do well in doubting themselves but not too much. When an attempt to make success does not lead to success, entrepreneurs are prepared to pull the brakes and call it a practical exit route and try something new. Self-introspection is a way of questioning oneself to know if this sort of business can be done and if really it is viable to dive into it. The study concluded that personal qualities and correct demonstration are the determinants of success for an entrepreneur.

William (Bill) Zinke in Hall (2012) contributed to entrepreneurial characteristics. His discussion highlighted that top entrepreneurs are committed to their purpose with passion; courageous to take risks; always opportunistic and with a positive attitude, authentic with great integrity. Good characters of an entrepreneur are self-confidence, dedication, and commitment, proactive with a high energy level, resourceful, persistent, flexible, implementers, always with broad knowledge, with the ability to accept failures and learn from them. They share the ability to create alliances, leverage, and strong negotiating skills.

2.6 Entrepreneurship in developing countries

Naudé (2010) expressed that entrepreneurship in some Small Business Economics (SBEs) was distinguished as a vital instrument for economic development, innovation, and welfare effects. Mubina (2013b) identified that an entrepreneur is a person who is a business leader that searches for ideas and afterwards places them into impact in the development of economic growth. Entrepreneurship is a standout amongst the most imperative mainstays of this development and growth. The economic development of a nation is the result of purposeful human action. It is fundamental for a developing nation to have entrepreneurs who are competent to perceive and discover new opportunities and are ready to incur the necessary risk in developing and exploiting them. A developing nation is known to be tormented with unemployment, low income, and poverty. Mubina (2013b) proceeded by indicating that for a developing nation to leave the endless loop, entrepreneurs can become possibly the most important factor to help break the cycle and together with the assistance of the government can change a developing economy into a developed economy.

Entrepreneurs contribute direct and indirect employment for many individuals in any given nation (Mubina 2013b). A nation's way towards economic development can be clarified with entrepreneurs assuming a vital role in diminishing the issue of unemployment in the nation. Since unemployment is a chronic problem for large developing and underdeveloped countries, small businesses promote entrepreneurial development as a vehicle for job creation (Mubina 2013b). Naudé (2010) believes that entrepreneurship is the main vehicle for economic development and that the more entrepreneurs there are in the economy, the faster it develops and the driving force behind economic growth as entrepreneurs.

2.7 Roles of Entrepreneurs

Mtetesha (2016) in his work discussed the following roles that entrepreneurs play in the economy and the development of a given society.

(A). Drivers of the production process and economic development

Entrepreneurship is not just an essential factor of production, but it is the driving element in both production and development. Without entrepreneurs, resources stay lethargic and dormant, along these lines the primary role entrepreneurs' play in development is the activation of the resources, driving the resources into production and lastly ensuring the resources are supported for continuous production. It is expressed that entrepreneurs can exploit the plenitude in nature and human resources in developing countries to increase the production of quality goods for both local and international markets, and the economic development is visible and possible. This, likewise, needs to consider the diverse roles that are played by women as entrepreneurs in economic development. It would then be able to be said that the more entrepreneurs locally grow and develop, the greater the opportunities for economic growth and development.

(B). Entrepreneurs raise National Income

Granovetter (2000) expressed that low levels of production result in low levels of income in poor countries. Subsequently, when entrepreneurs are included from the grassroots level in production, exportation, and importation of farm goods are visible which will contribute to the national income of the country, directly and indirectly, give the economy a prospect of growth. The incentives that entrepreneurs convey to the countries national income fills in as the persuading component to urge women, farmers, to take an interest in the development programme.

(C). Value addition and Industrialization

The role entrepreneurs play in economic growth and development is essential. Moreover, entrepreneurs are extremely indispensable in the process of structural change or industrialization. Naudé (2013) expressed that entrepreneurial innovation leads to the reallocation of resources from the traditional (agricultural) sector to the modern (manufacturing/industrial) sector. Agricultural industrialization opens the entryway for employment and poverty reduction. Gries and Naudé (2010) showed that entrepreneurs assume three key jobs in industrialization, which are the creation of new firms outside the household, offering new products and presenting new procedures. They increase the size of firms by clustering specialized firms that will offer ascent to the economy and entrepreneurs can raise the returns to humans and physical capital in which they give impetuses to further investment and education.

(D). Promoting capital formation

Todaro and Smith (2003) in Mtetesha (2016) expressed that the creation of increased capital in an economy through capital investment will result in decreased inflation and increased production abilities. The capital formation would then be the driver of economic growth over the long haul.

(E). Employment creation and reduced income disparities

Increased employment levels will reduce poverty levels, increase the per-capita income, and improve generally the quality of life.

(F). Improved standards of living

With increased employment, poverty is reduced, allowing more people to meet the basic needs of life.

(G). A major source of government finance for development

Entrepreneurship through goods taxation helps the government to provide funds for activities such as health care, education, road networks, etc. It, therefore, makes a significant contribution to the production of goods and services.

(H). Social corporate responsibility

Mtetesha (2016) concluded that entrepreneurship is a key ingredient that links production and development. In order to develop their economy, many countries with large capital, mass land blessed with rich resources and labour reserves are encouraged to improve entrepreneurship.

Mubina (2012) discussed the different factors affecting entrepreneurship development. These factors are divided into three, which are economic factors, social factors, and psychological factors. Economic factors were further divided into (a) capital, (b) labour, (c) raw materials, (d) market and infrastructure. The social factors were further divided into (a) caste factor, (b) family background, (c) education, (d) attitude of the society and (e) cultural value. The psychological factors were divided into (a) need achievement, (b) withdrawal of status and (c) motives.

2.8 Impact of entrepreneurship on economic development

Seith (2015) featured that entrepreneurs are much of the time thought of as national assets to be cultivated, motivated and remunerated to the greatest extent. Through wealth creation through their enterprising endeavours, they create jobs and in reply contribute to a prosperous society. Businesses created by entrepreneurs in the form of new goods and services result in new employment which has an effect on the economy. Entrepreneurs add to the national income through the generation of new wealth.

Swanepoel, Strydom, and Nieuwenhuizen (2010) featured that the South African economy is seriously immersed with different financial difficulties of reducing unemployment, economic decline, and poorer entrepreneurial activities. It is extremely basic for entrepreneurship to put into motion major economic tasks of creating new economic opportunities for business purpose and the general society (Arenius & Kovalainen, 2006).

Seith (2015) expressed that better new and improved technologies from entrepreneurs empower new markets to be developed and as a result, there is the creation of wealth in the process. Because of this creation of wealth through their unique goods and services, entrepreneurs break away from tradition and indirectly support freedom by reducing dependency on old technologies. Entrepreneurship adds to community development in investment in community projects and

financially supporting local charities which enable further development beyond their very own endeavours.

Agbenyegah (2013) as well as Herington, Kew and Kew (2010) featured that entrepreneurship is viewed as an essential economic force that shapes the global economic performance. This is additionally authenticated by Naudé (2011) that entrepreneurship plays a vital role in creating job opportunities which will contribute to any country's economic development.

Schumpeter (1961) and Fowl (1989) expressed that globally, economic development is related to the degree and the presence of entrepreneurial activities around. The overall economic outlook for South Africa has declined due to poor entrepreneurship and entrepreneurial performance (Agbenyegah, 2013). As a result of this, Nieman and Niewehuizen (2010) stated that it is vital to support small businesses through great initiative and the management practices, innovation, research, and development to add to the independent venture achievement and afterwards adding to the economy.

Kritikos (2014) expressed that entrepreneurs are uncommon species, particularly the imaginative entrepreneurs including women. The significance of innovative entrepreneurs to the economy is vital for the competitiveness of the economy to keep the economy above water. Their significance cannot be disregarded in the light that through innovation, they think of better approaches to deliver a product or a solution in which the longevity of the business is ascertained. He further expressed that the results and gains of entrepreneurship are only realized if the business environment is receptive to innovations and that entrepreneurs often create new technologies; new products and open up a new market. Valliere and Peterson (2009) indicated that radical innovations often lead to economic growth. This is supported by Koster, Van Stel

and Folkeringa (2012) who mentioned that entrepreneurs increase competition through the establishment of new businesses thereby intensifying competition for existing businesses.

Nwokike (2015) expressed that entrepreneurship can go far to stabilizing the economy of a country to generate massive returns for the government. Besides, it is the idea of Dr Ercan Ekmekeioglu of Kyrgyzstan-Turkey Manas University that entrepreneurship can impact the economy through innovations that enter and increase efficiency through bringing competition in the market (Carree & Thurik 2010). The significance of entrepreneurs can be found in the economies of nations such as the United States of America (USA), Canada, and Australia that know the significance and comprehend the impact entrepreneurs play to the growth of their economy, hence the constant increase in their Gross Domestic Product (GDP) which directly leads to an increase in their economy. Figure 2.8 below shows what entrepreneurs offer the country (economy).

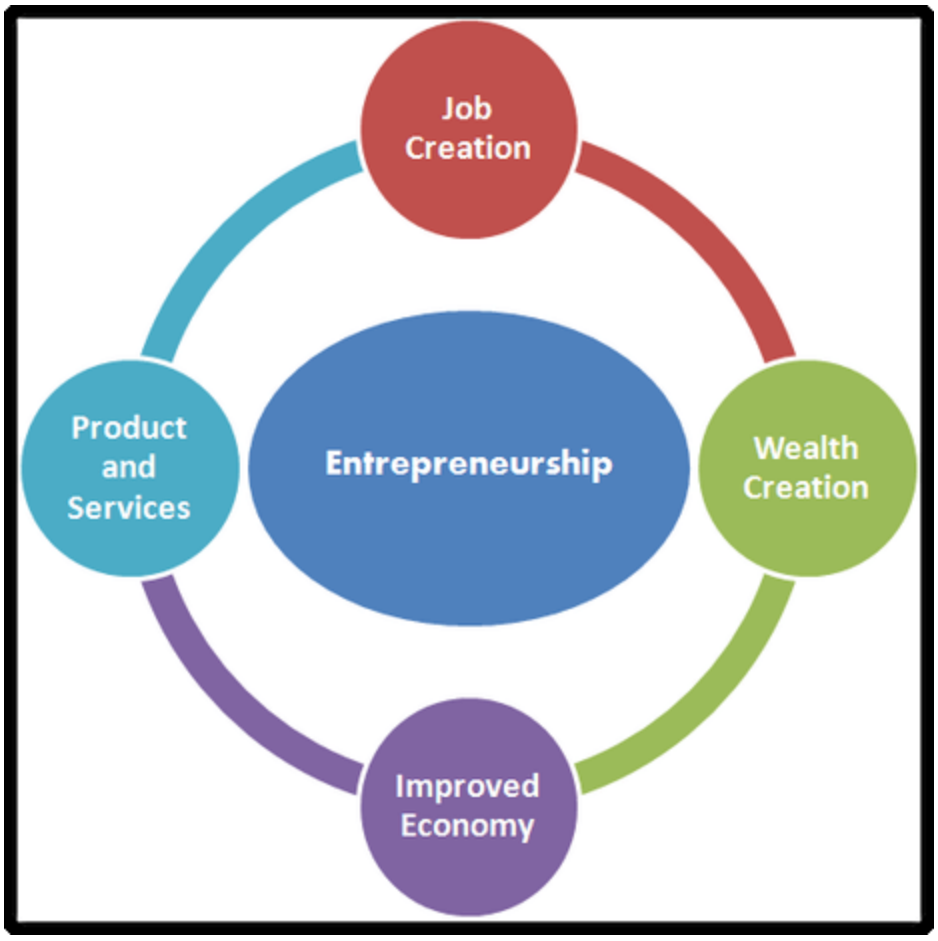

Figure 2.8 What entrepreneurs offer the country (economy)

Source: Nwokike (2015)

Women who are involved in agricultural production in their right as entrepreneurs do whatever is fundamental for the success of their production. A woman who is an entrepreneur coordinates the other factors of production. Shukla (2009) talked about five different ways an entrepreneur stimulates the economy, and these are:

i. Investment: An entrepreneur invests in goods and services that people need in order to ensure a better life for the people.

ii. Employment: Through establishment by women in agriculture, various businesses are set up to generate employment for the economy. People need jobs; they create jobs to eradicate the issue of unemployment.

iii. Product and service diversity: An entrepreneur provides consumers with different types of goods and services. Consumers would be spoilt with choices to make hence giving the room for a good bargain at reasonable prices.

iv. International trade: By selling its products abroad, an entrepreneur promotes international trade. An entrepreneur wants a broader market. The more consumers demand their products, the higher the profit they make or realize.

v. Contributes to the Gross National Product (GNP): The GNP is calculated according to the number of products and services available in the country concerned. The more the products and services women entrepreneurs provide, the higher the GNP. This also shows the country's economic prosperity.

In summary, Shuhla (2009) discussed that the significance of the entrepreneur for the economic development of a nation cannot be over-underlined. The aptitudes and ability of an entrepreneur contribute to the progress of any nation. Entrepreneurs convey essential goods and services required by the subjects of his or her nation. Carree and Thurik (2010) additionally examined that the key commitment of entrepreneurship to economic growth can be viewed as the originality, which involves the start-up of new firms, likewise the change of inventions and ideas into economically viable entities.

Women entrepreneur can be characterized as an individual who does her research on market segmentation so as to have an unmistakable comprehension of what is absent in a market and how to bring the exact innovation into reality. An entrepreneur seeks after information and opportunities. Any emerging entrepreneur or a present entrepreneur must ask him/herself what the single necessary and sufficient condition for a business is. We know the single condition for a business to succeed is to be able to pay the client. Consequently, it is imperative for an entrepreneur to recognize the requirements of the paying client that is the place they are located geographically and the amount they will spend on the item.

Entrepreneurs always have a great idea, innovation and the enthusiasm for these ideas to succeed and they always prepare for possibilities. An entrepreneur ought to exhibit potential demand and always deliver goods and services at a profit. An entrepreneur always sees the exercise of writing a business plan as a great way to demonstrate a genuine opportunity, and he or she has a blueprint to exploit to make it a reality.

2.9 Small business entrepreneur awards and quality awards

Apo (2007) reported that in India, small business entrepreneurs and quality awards have been introduced to incredible achievement. The Ministry of Co-operative and Entrepreneurship Development (CED) likewise, successfully introduced quality awards to reward small business owners in Malaysia. Samsung SDI has likewise presented a small business entrepreneur award. In Indonesia, quality awards have similarly been introduced and successfully launched. Apo (2007) further talked about a portion of the awards that were presented in the Philippines. These are:

i. Presidential awards for outstanding Small and Medium Enterprise (SME);

ii. Golden Shell Award (GSA); and

iii. Philippine Quality Award (PQA).

In Pakistan, APO (2007) reported that the private sector has successfully launched awards promoting entrepreneurship. These include:

i. Shell Tameer's Young Business Start-up Award;

ii. Lum's Young Entrepreneur of the Year;

iii. President's Quality Award;

iv. Federation of Pakistani Chambers of Commerce and Industry (FPCCI); and

v. Best Lady Exporter Gold Award.

2.9.1 Presidential awards for outstanding SME graduate

APO (2007) distinguished this honour as being given to remarkable entrepreneurs who graduated and surpassed desires in their specific fields through government help, just as through case self-action to enhance the intensity and who has additionally gone far and past in support of the community as far as production. This honour is given due to their remarkable business execution that is incorporated into different areas of management in a promising SME.

2.9.2 Golden shell awards

This award is given every two years by the Department of Trade and Industry through the International Trade Exhibition and Mission Center (CITEM) to companies of Philippine origin for their excellence in exports. Designs, production, marketing services and rising stars are also not excluded. Manufacturing and service exporters are awarded separate awards based on design,

services and marketing excellence. The award is also bestowed for the introduction of a rising star/product in rural development and the impact of exports to the country.

2.9.3 Philippines quality award (PQA)

The Philippine Quality Award is a global layout of competitiveness that aims at supporting and attracting public and private organizations to progress and achieve brilliance in performance. The achievements of public and private sector organizations in their performance of brilliance and adventure are perceived as a national honor. The PQA's three objectives are to promote organizational performance standards, establish a national framework for quality and efficiency surveys and recognize organizations in both the private and public sectors that exceed the expectations of quality management. This is the Philippines' highest honor in recognition of exemplary national organizational performance. Despite excellence in quality, grants for mastery in quality management, quality management skills and commitment to quality management are also introduced.

2.9.4 Shell Tameer's young business start-up award

This award was launched in 2003 in which Tameer encourages a business environment of young people aged 18-35, and it has engaged about 12,000 young entrepreneurs so far. Sixty-one entrepreneurs have been recognized so far. According to Shell (2017), the programme has provided enterprise awareness sessions to over 76,000 young people, ran 126 training workshops benefiting over 4000 young people and resulting in 400 business start-ups which have since then provided employment to over 22,500 people. The efforts of young entrepreneurs are recognized through this award, through business start-up on an annual basis.

2.9.5 Lum's young entrepreneur of the year

This honor is a reward that transmits acceptance into the hall of fame. These people are chosen from among the people who, because of their entrepreneurial spirit, have started from scratch and made remarkable business progress.

2.9.6 President's quality award

This award recognizes the outstanding productivity and quality of SMEs and is awarded annually by the National Productivity Organization for SMEs that exceed productivity and quality expectations.

2.9.7 FPCCI's best lady exporter gold

This honor is given to a woman entrepreneur who, in the Federation of Chambers of Commerce and Industry's judgment, achieved the best export performance in the middle of the year, exceeded expectations in the export performance in the middle of the year. The export of the FPCCI is considered very high at home and abroad, as the beneficiaries appreciate an exalted international position and are seen as Pakistani diplomats.

2.10 Agricultural Entrepreneurship

A growing consensus in the identification and pursuit of entrepreneurial opportunities especially in agriculture is growing. Claudia, Rodrigues and Ferreria (2019) indicated that the mainstream of entrepreneurship is now interested in pursuing agricultural entrepreneurship, as the neglect of this sector has been a diverse phenomenon in the last years. In the sense of new offerings that drive market process and take the form of existing business growth or the creation of something new, Fitz-Kock, Nordqvist, Carter and Hunter (2017) stated that the concept of agricultural

entrepreneurship could be likened to the development of non-agricultural businesses by established farmers. On the other hand, Pindado and Sanchez (2017) stated that agricultural entrepreneurship could be likened to agricultural activities such as the development of new products and innovations in the business process, distribution and marketing.

Entrepreneurship, an integral aspect of the agricultural sector has been faced with the presence of complex market regulations and the perspective that agriculture must be analysed separately from other forms of economic activity (Alsos, Carter, Ljunggreen and Welter, 2011). Claudai *et al*. (2019) stated that the agricultural sector is currently faced with rapid changes and new challenges both on the demand and on the supply side, which has made farmer's entrepreneurial activities complex in the environment, they operate. Claudia *et al*. (2019); Lans, Seuneke and Klerkx (2017); Seuneke, Lans and Wiskerke (2013) all stated that the challenges which include change in market, change in consumer habits, food safety, sustainability and biotechnology has affected the adaptation behaviour of farmers to the recent environmental, social and economic crisis resulting in a growing attention of researchers regarding entrepreneurship in agriculture.

Agricultural entrepreneurship is generally associated with rural areas. Korsgaard, Muller and Tanvig (2015) highlighted that agricultural entrepreneurship implies a specific involvement with the rural natural environment, which makes entrepreneurs face particular challenges such as low human and financial capital, small markets and poor communication. Not to forget that agricultural entrepreneurship can be studied in both rural and urban environments. It is then necessary to better understand the characteristics of agricultural entrepreneurship in both the rural and urban environment.

When studying agricultural entrepreneurship, Lans *et al*. (2017) indicated that its specificities should be considered, such as the agricultural sector, the direct environment in which the practice is in, and the role of women. Pindada and Sanchez (2017) highlighted that the agricultural sector is mainly composed of small family businesses where the management and control are not separated from family relations and the creation of the business. Lans *et al*. (2017) stated that women play a crucial role in the family business since in many situations; women are the starter and founders of new businesses. Alsos *et al*. (2011) and Pindado and Sanchez (2017) indicated that the strong regulatory environments, markets and start-up make the agricultural sector interesting to study and also restructuring of the entrepreneurs' resources. With all this said, besides the economic aspects, agricultural production on the environment is more prominent over the other sectors. Claudia *et al*. (2019) stated the role of agriculture is then not only to produce but also to preserve biodiversity and create cultural heritage through the years.

2.11 DAFF female entrepreneur awards

Scholars and policymakers as one of the drivers of economic growth and national development regard entrepreneurship. While a great deal of research has been undertaken on this issue, Meyer (2018) noted that not much had been done in relation to gender issues of entrepreneurship. Though entrepreneurship as a topic in the field of research is not recent, Meyer (2018) noted that the first official research on female entrepreneurship became published in 1976 by Eleanor Schwartz which was said to broaden the horizons of research on female entrepreneurship. The essence of entrepreneurship links to increased and sustained economic development and growth especially in developing countries; it is also a driver of accelerated economic growth. Meyer (2018) stated that Schumpeter's definition of entrepreneurs in 1930 is one who creates new combinations, new markets, products or distribution systems.

According to the DAFF Guide (2013 / 14-2015 / 16), a common framework for the coordination, implementation and management of the DAFF Female Entrepreneur Awards program for both the DAFF and the provincial agricultural departments must be established and proposed. The programme's background is expected to recognize, support and increase the participation of women, young women and disabled women in the sector. It is essential to emphasize the important role played by women in food security, job creation, economic growth and poverty reduction. The programme's basic intention is to integrate women entrepreneurs or farmers and smallholder producers into commercial entrepreneurs who ultimately export agricultural products. This vision is in line with the National Development Plan, which aims at empowering women thus promoting their participation in the economic transformation of the country.

The expansion of the Department of Agriculture, now known as DAFF, also had a significant effect on the award, initially known as the Female Farmer of the Year Competition, and in 2010, the program was renamed the DAFF Female Entrepreneur Awards. The DAFF (2013 / 14-2015 / 16) stated that the programme has been sponsored by Total South Africa since its inception, both annual competition and development elements. Participants in the DAFF Female Entrepreneur Awards (FEA) in the different nine provinces undergo a rigorous adjudication process in which selected provincial winners have to compete at the national level and receive their contributions at a gala dinner hosted by DAFF in conjunction with the provinces, sponsors and various stakeholders.

The award ceremony at provincial and national levels takes place during women's month in August to highlight the sector's input towards the broader gender transformation agenda of the country (DAFF, 2013/14-2015/16). The programme has since been an empowerment platform that recognized the entrepreneurial skills of older women, young women and women with

disabilities in the agricultural sector. According to DAFF (2013/14-2015/16), the National Organizing Committee (NOC) was then established to work with DAFF to oversee, facilitate and help monitor the implementation of the DAFF Female Entrepreneur Awards programme through the:

- creation of appropriate coordinating sub-committees at the national level;
- development and reviewing of the guiding document for the DAFF FEA programme;
- identification, development, and maintenance implementation of the protocol with the key stakeholders;
- receiving, discussing reports, tracking progress as well as monitoring and evaluation of the DAFF FEA programme; and
- Influence policy development, review policy documents and mobilize resources with a view to strengthening the programme to maximize the participation and empowerment of women in agriculture, forestry, and fisheries.

The programme shall be prescribed by the following terms and conditions. In order to be able to participate in the FEA programme or to be eligible for it, the Department of Agriculture, Forestry and Fisheries indicated the terms and conditions to be adhered to by the entrants or participants. The main one is that the participants in the competition must participate in the full-time activities of agriculture, forestry and fisheries. It is imperative that the winners and nominees of the competition are prepared to participate in all activities related to the media that the programme coordinators can organize. In order to encourage other women to participate in agriculture, forestry and fisheries, competition winners must be prepared to act as mentors and participate in development programmes (DAFF, 2013 / 14 - 2015 / 16).

Government employees are not allowed to enter or participate in the programme as this will against the terms and condition of the programme. Eligibility to partake in the programme is only opened to the citizens of the Republic of South Africa. Furthermore, previous winners of categories cannot enter the competition in the same categories in subsequent years, and the overall winner cannot re-enter the competition in any other category. A panel of adjudicators verifies all documents of the entrants before the respective interested entrants of the competition are invited. They must be present for the interview process. The entrants of the competition must grant access to video footage recording which will be a support to information provided on the forms filled. The executive committee concerning which participants have qualified and met the criterion as set on the programme framework makes the final decision.

For the best female worker in the sector, this category recognises only people who do operational work, the worker must not own any entity and the worker must not be related to the owner and must have leadership qualities, quality of work, good working conduct, creativity and flexibility.

For the category of the best subsistence producer sector, it recognises beginners only that demonstrate innovation and creativity in improving food production and demonstrate responsible use of production inputs such as pesticides, fertilizers and vaccines. One who demonstrates an understanding of improved farming methods with an ability to produce surplus as an added advantage.

The top entrepreneur in the sector is one that has a good sense of the market and record-keeping; manage an organised storage facility and also demonstrates a degree of innovation and creativity in improving farming methods and delivering products with high quality to attract consumers and also demonstrate improved farming methods. The top entrepreneur category is one whose produce is sold locally, nationally and internationally to enhance economic growth, demonstrate

an understanding of improved farming methods and must create and retain permanent jobs in the enterprise. The top entrepreneur in commercial must have a defined role in the entity and demonstrates the existence of contract agreement with local and national businesses, with a good sense of record keeping. The category of the top entrepreneur in export market must be producing for export market and should have about 60% of the product should be exported with proof of the transaction and export duty certificate. A good record keeping and supply audited financial statement with high-diversified marketing strategy to enhance economic growth. According to Appasamy (2018), approximately 2 800 women have participated in these awards, these women have to deal with the intricacies of socioeconomic factors, food insecurity and male chauvinism, they could still strike a balance between entrepreneurship and skills transfer.

DAFF (2013) highlighted that female entrepreneur awards are divided into categories as shown in Table 2.1.

Table 2.1 Female Entrepreneur Award and Category

Provincial Category	Cash Prizes (Rands)	National Category	Cash Prizes (Rands)
Best female worker in the sector Agriculture, Forestry, and Fisheries	50,000	Best female worker in the sector	100,000
Best subsistence producer (winner and runner-up). Agriculture, Forestry, and Fisheries	75,000 25,000	Best subsistence producer	150,000
Top entrepreneur smallholder (winner and runner-up). Agriculture, Forestry, and Fisheries	125,000 32,000	Top entrepreneur smallholder	250,000
Top entrepreneur processing (winner and runner-up). Agriculture, Forestry, and Fisheries	125,000 32,000	Top entrepreneur processing	250,000
Top entrepreneur commercial (winner and runner-up). Agriculture, Forestry, and Fisheries	125,000 32,000	Top entrepreneur commercial	250,000
Top entrepreneur export markets (winner and runner-ups). Agriculture, Forestry, and Fisheries	125,000 32,000	Top entrepreneur export markets	250,000
MEC's special award: Young woman and/or woman with a disability	50,000	Minister's special award: Young woman and/or woman with a disability	100,000 100,000
Overall Winner	250,000	Overall Winner	500,000

Source: DAFF (2015)

Some of the other incentive programmes by the National Department of Agriculture, especially benefited in the North West Province are highlighted with the amount approved and jobs created from this incentive programme. An overview of the broadening incentive programme highlights that this incentive programmes provides and promotes participation in the mainstream economy of businesses owned by individuals from historically disadvantaged communities and regions. The services investment incentive programme promotes increased investment and job creation in the services sector. The competitiveness incentive programme promotes the industrial competitiveness of South African goods and services in the global economy while the infrastructure grants provide assistance with the infrastructure of entities and businesses.

The Department of Trade and Industry (2017/2018) shows that the North West Province benefited R2.8 million in 2016 but increased to R4 million in 2017 in the technology and human resource for industry programme. In support programme for industrial innovation, the North West Province benefited growth in approvals for the economy and with an amount of R7.3 million in 2016 but grew to R18 million in 2017. The automotive investment scheme recorded that 578 jobs have been created from the R82.9 million investment incentives disbursed to the North West Province with 265 black women accounting for the jobs created in the total 578 jobs. The manufacturing investment programme has seen the North West Province benefit R10.2 million worth of grant. The aquaculture development and enhancement programme have the North West Province benefit R13.1 million in 2016 and in 2017 R21.5 million. Across the Province, it is noted that R21.9 million has been disbursed for the critical infrastructure programme as agriculture falling into the R5.6 million given to the Province.

Rural Environment and Agricultural Development (2014/15) indicated that the Nguni Cattle Development Programme has benefited a total number of 78 sites positively influencing 185

farmers. The programme has empowered 72 women and 31 youths. The young farmer award is given to a commercial farmer that is successful in the area of large-scale farming. Some of the other awards in the Province include the land care entrepreneur of the year, North West farmer of the year, and the youth in agriculture that all recognises aspiring young farmers in the Province and the excellent work that they do. In addition, AgriSA young farmer of the year award is given to a young farmer for introducing social and environmental practices into farming.

2.12 Commercialization

Ele, Omini, and Adinya (2013) communicated that a large literature exists on commercialization, comprehensively characterized as having greater engagement with markets, either for inputs, outputs, or for both of small family farms. Seyoum, Lemma and Karippai (2011) expressed that "commercialization of production systems is a process through which a household production goal changes from subsistence to profit maximization and a production system in which households produce market-oriented products based on the preference of consumers". Besides, as demonstrated by Ejupu, (2001), commercialization is a procedure including a conscious activity with respect to the producers to utilize their land, labour, implements and inputs in such a way that profit is maximized from the crops produced or animals raised for exchange or sale. Wiggins, Argwings-Kodhek, Leavy and Poulton (2011) defined commercialization as an increasing commitment with markets, using markets to hire labour and borrowing funds to rent land, obtain technical advice and market information.

Commercialization considers both the input and output sides of production and the decision-making of farm households in production and marketing simultaneously as upheld by Zhou *et al*. (2013). Pingali (1997) looked at both input, output sides, and suggested that over time, these two

parts of commercialization will continue extensively in a pair. Commercialization can likewise be seen from the point of view of the exchange economy. It encompasses the benefits gained by the household from the rural economy. Accordingly, Okezie, Sulaiman, and Nwosu, (2012) characterized commercialization as the volume of produce and household resources that enter the trade economy. This includes the off-farm exchange of labour and capital. In this occasion, commercialization infers that both traded and nontrade inputs are valued in terms of their estimated market worth.

Dube and Guveya (2016) featured that there have been distinctive approaches and indicators have been utilized for estimating the dimension of agriculture commercialization. Von Braun *et al*. (1994) determined four kinds of indices for measuring commercialization at the household level. These are the value of agricultural sales in the market over the agricultural production value for the output side type commercialization, for the input side commercialization type. It is the value of inputs acquired from market over the value of the agricultural production value. This will give us the value of goods and services. Commercialization of the rural economy index is characterized as the ratio of the value of goods and services acquired through market transactions to total household income, and the degree of integration into the cash economy, which is characterized as the ration of the value of goods and services acquired, by cash transactions to the total household income.

Govereh, Jayne and Nyoro (1999) defined the scope of commercialization of agricultural production. Agricultural commercialization aims to move from production to production that is dominantly market-oriented for domestic consumption alone. Sokoni (2007) defined the commercialization of smallholder production in accordance with the above definitions as a process involving the transformation from household subsistence production to market

production. Hazell, Poulton, Wiggins and Dorward (2007) found that most definitions refer to agricultural commercialization as the degree of participation in the output markets with a particular focus on cash income. Despite the fact that there have been diverse meanings of commercialization, we will pursue Von Bruan and Kennedy's (1994) and calculate it as the "proportion of agricultural output sold to the market and input acquired from market to the total value of agricultural production".

2.12.1 Agricultural commercialization

Agricultural commercialization as an idea is overwhelming, plagued by a lack of clarity which has given rise to misguided judgments (Goshu, Kassa, & Ketema, 2012; Jaleta, Gebremedhin, & Hoestra, 2009). This absence of clarity has, therefore, added to differing definitions and emphasis given in the literature. These definitions as per Zhou, Minde and Mtigwe (2013), vary in focus and breath, which has additionally influenced its measurement. In Agwu *et al*. (2013), the basic definition refers to agricultural commercialization as a process to increase the extent of agricultural production sold by farmers. Poulton, Tyler, Hazell, Doward, Kydd, and Stockbridge (2010) additionally pursue the output-side definition, and views commercial agriculture just like the production fundamentally expected for the market, and are not reliant on the scale of production or identified with any specific types of crops. Agricultural commercialization is significantly more important than the marketing of agricultural outputs, which means that the choice of products and the use of inputs are based on the principle of maximizing profit (Von Braun, Haen, & Blanken, 1991; Pingali & Rosegrant, 1995; Kim & Yoon, 2009). Various market meanings, including Von Braun and Kennedy (1994) pursue the input side and take into account the level of market reliance on the supply of production inputs.

The commercialization of agriculture as a characteristic of agricultural change is more than whether or not there is a cash crop in a production system to some extent. Zhou, Minde, and Mtigwe (2013) additionally contended that the commercialization of agriculture has to do with the shift from subsistence farming towards market orientation. It can take a wide range of structures "by either occurring on the output side of production with increased marketed surplus or occur on the input side with the increased use of purchased inputs". Commercialization is the result of simultaneous decision-making behaviour of farm households in production and marketing (Von Braun & Kennedy, 1994).

Agricultural commercialization and venture are seen as the key frameworks for promoting rapid modernisation, sustainable growth and development, thereby reducing poverty in the sector. However, in order to manoeuvre in agricultural investment, it is essential that the requirements impeding the implementation of the sector are first identified in order to unlock them and create a favourable atmosphere for investment in the sector.

2.12.2 Importance of agricultural commercialization

Nwafor (2015) stated that agricultural marketing was shown to be an essential path to economic growth and improvement for most developing countries in the agricultural sector (Von Braun, 1995; Pingali & Rosegrant, 1995; Timmer, 1988). In promoting improved living standards, Rahut, Castellanos and Sahoo (2010) argued that commercialization allows increased participation of individuals including poor households in the domestic and international exchange economy, leading to higher average farm incomes and thus lower inequalities in farm incomes. Collaborating with Sharp, Lundi and Samuel (2007), the ultimate intention of commercialization is not only to shift from subsistence to market-oriented agriculture but also to achieve better welfare results for smallholder farmers (Rahut, *et al*. 2010).

According to Jayne, Haggblade, Minot, and Rashid (2011), "the principal starting point of structural transformation is broad-based smallholder-led agricultural growth and commercialization". The structural transformation process begins with 'broad-based agricultural growth, causing a buildup of purchasing power by millions of small-scale farmers, trapped at the base of the income pyramid'. The recycling of money fuels demands and growth in employment in other non-farm sectors, which in turn increases the demand for food and other agricultural products; a virtuous cycle in which rural and urban workers provide each other with a market. Smallholder marketing is an essential element of the structural transformation process, which most development economists consider to be an important step from a semi-subsistence agricultural society to a more diverse and food-safe economy with a higher general standard of living (Jayne *et al*., 2011).

The commercialization procedure allows the smallholder to take an interest in the exchange market, inputs and outputs. Okezie, Sulaiman and Nwosu (2012) deduced the view of various authors that the commercialization of agricultural systems leads to a greater market orientation of agricultural production, a gradual replacement of non-traded inputs in favor of purchased inputs, and a gradual decline in integrated agricultural systems and their replacement by specialized companies. Von Braun, Bouis and Kennedy (1994) also emphasized the benefits of specialization through market transactions as a commercialization implication.

Pingali and Rosegrant, (1995) and Kurosaki (2003) all agree with this view, and that commercialization prompts an expanded variety of "marketed commodities at a national level and increased specialization at regional and farm levels". Jaleta, Gebremedhin and Hoestra (2009) reported that net gains from market-oriented production resulting from specialization, which builds on the potential for large-scale production and creates comparative advantages, as well as dynamic effects of technological, organizational and

institutional change, which emerge from exchange-based interactions through the stream of thoughts.

Commercialization is progressively seen as the future way for agriculture, as subsistence farming, later on, may not be a viable activity, which guarantees the sustainable household welfare and food security (Pingali, 1997). Dorsey (1999) hypothesized that commercialization will; in general, create "more household income due to its comparative advantages over subsistence production". In addition, its "linking power between input and output sides of the market are also recognized". Pingali (1997) declared that the demand for modern technologies by the commercializing sector "promotes the input side of production and facilitates the development and advancement of technological innovations". The utilization of present-day innovation results in higher productivity and production entering markets.

The procedure of commercialization, likewise, encourages the development of new services, intermediation and value addition. Such services include an energized financial services sector providing credit, insurance, business advisory and related services. This fits the attestation by different researchers including Jaleta *et al*. (2009) that commercialization is a noteworthy course to the by and large transformation of the economy, "proportions of economic output and employment are generated by the non-agricultural sectors". The welfare impacts or impact of agricultural commercialization has been distinguished to incorporate gains in farm household income, employment, health and nutrition (Jaleta *et al*., 2009).

The effect of commercialization can be arranged into first, second and third-order (Jaleta *et al*., 2009). "First-order impacts are predominantly mainly income and employment effects that are directly reflected in the household welfare, the second-order effects include health and nutrition aspects, usually contingent on the level of income attained through the existing level of

commercialization. The Third order effects are the macroeconomic and environmental effects that go beyond the household level". Jaleta, *et al*. (2009) opined, "though the process of commercialization impacts on the smallholder farmer in various ways, the positive impact of agricultural commercialization likely outweighs any adverse consequences associated with the commercialization process".

Other studies used the household commercialization index (HCI) adopted from the model used by Govereh, Jayne and Nyoro (1999) and Strasberg, Jayne, Yamano, Nyoro, Karanja, and Strauss (1999) to determine household-specific levels of commercialization. The index measures can also be expressed as a percentage.

$$HCI\ i = \frac{\text{Gross value of crop sales hh i year j}}{\text{Gross value of all crop production i year j}} \times 100$$

Where HCI= Household Commercialisation Index

i= the ratio of the gross value of crop sales by household

j= gross value of crop sales by household in a year

The index measures the extent to which household crop production is oriented toward the market. A value of zero (0) would signify a totally subsistence orientated household, and the closer the index is to unity (1), the higher the farm household degree of commercialization. The advantage of this approach is that commercialization is treated as a continuum, thereby avoiding the crude distinction between 'commercialized' and 'non-commercialized' households; thus effectively bringing small-scale and subsistence producers to the centre of the discussions about commercialization (Gabre-ab, 2006, citing Govereh, *et al*., 1999).

2.12.3 Participation in government-sponsored programmes

Phatudi-Mphahlele (2016) showed that the study conducted by Onianwa, Wheelock, Gyawali, Gan, Dubois and Schelhas (2004) inspected the factor that influences the participation of farmers with limited resources in agricultural cost-share programmes in Alabama. The results of the study were that factors, for example, college education, age, the ratio of land owned to total acres, rented acres, the gross value of sales and membership in a conservation organisation indeed had affected participation. The more educated farmers the higher the participation.

Nagubadi, McNamara, Hoover, and Mills (1996) asserted that in India and the United States of America, the commercial and land ownership, government source of information and forestry organization determined participation in the land ownership programme. The authors further showed that factors such as property right loss, ages and the first wooded period tract were acquired and were the significant factors that promoted participation in the program. Bell, Roberts, English, and Park (1994) conducted a study on the effect of cost-share incentives on participation in the Tennessee Forest Stewardship program.

The above study also examined factors that influenced participation. Forest programs were identified as factors that could be more influential than cash incentives in the decision of a landowner to participate. Norris and Batie (1987) also examined the decision to conserve the soil using survey data from farmers in two counties in Virginia. The observation was that the sampled farmers were affected by financial factors (income and debt), erosion perception, education, off-farm employment and tenancy. The findings also showed that the use of conservation tillage was significantly linked to age, race and on-farm erosion.

Kalaitzadonakes and Monson (1994) conducted a study on factors that influenced potential conservation effort in Missouri using a sample of contract holders. It was quite clear that

potential conservation efforts were directly influenced by greater risk aversion and low discount rates while increasing debt load positively influenced conservation. Featherstone and Goodwin (1993) examined the effect of various factors on probability and expected the level of long-term conservation improvement by sampling 541 Kansas farms. The results suggested that differences in farm sizes, incomes and types of farming practices influenced conservation investment decisions. The outcomes indicated that Government programs participation does not affect investment in long-term conservation improvements.

The case study that was conducted in Ntfonjeni Rural Development Area (RDA) in Swaziland on factors affecting participation of farmers in smallholder irrigation schemes indicated that distance to the irrigation scheme, age of participants, household head occupation, size of the farm, access to credit, and memberships in organized groups determined participation (Sithole, Lagat, & Masuku 2014). The relationship between age and choice to participate in smallholder irrigation schemes was negative.

According to Martey, Asante, Al-Hassan and Dogbe (2013), the likelihood to participate in the irrigation scheme was a factor of a younger age. The younger the household head the more the participation due to their ability to be innovative in technology adoption and more tendencies to take the risk than their older counterparts do. However, other researchers like Etwire, Dogbe, Wiredul, Martey, Robert and Wahaga (2013) as well as Khalherili and Zamani (2009) and Nxumalo and Oladele (2013) revealed that age was not significant in the household head‘s decision to participate in agricultural projects.

The distance to the scheme significantly influenced house head’s decision to participate, but the relationship was negative. This meant that a one-kilometre increase in distance significantly

decreased the likelihood of the household head to participate by 4.6%. However, Asayehegn, Yirga, and Rajan (2011) indicated that distance had no impact on participation in Ethiopia.

Farm size and access to credit significantly influenced the probability of participation (Nxumalo and Oladele, 2013). A unit increase in farm size significantly increased the likelihood of the household head's participation in the agricultural project by 3.8%. Asante, Villano, and Battese (2011) emphasized that those farmers who had access to credit managed to overcome the problem of finances that were related to production and innovation adoptions. This resulted in a source of motivation for group formation and learning.

Correspondingly, Kilewo and Frumence (2015) conducted a study to determine factors that hindered community participation in developing and implementing the Comprehensive Council Health Plan (CCHP). The findings of the study evidenced that, inadequate awareness of the CCHP among Health Facility Governing Committees (HFGC) members, poor communication and information sharing between Council Health Management Team (CHMT) and HFGC members, and inadequacy of financial resources for implementing HFGC activities were hindrances. Subsequently, the challenges found in the study serve as a mark to policymakers to revisit their developed strategies and engaged local governance on planning and managing of CCHP and health facility plans.

According to Ndoro, Mudhara, and Chimonyo (2014), competition for common assets, for example, land and water in rural areas of South Africa undermine the maintainability of cattle-based livelihoods. The national and provincial governments put cash in agricultural extension to enhance profitability, and the government protects the multi-usefulness of cattle farming despite the fact that the viable and effective livestock extension models remain a test. Ndoro *et al*. (2014) studied the secondary effects and primary effects of participation in livestock

extension programmes in the KwaZulu-Natal Province. A total of 230 smallholder farmers from 13 communities were surveyed using the method of matching the propensity score. The results of the Probit model showed that the likelihood of participation in the extension programme was inversely related to education and was influenced by group membership, distance from the extension office, adoption of mixed breeds, size of herds and use of feed supplements. In addition, the increased benefits of participating in cattle production and input extension programmes were limited.

Zbinden and Lee (2005) conducted a study titled: Payment of environmental services in Costa Rica's Programme. Costa Rica served as a pioneer in policy innovation dealing with deforestation (World Bank, 2000) and as a long time leader among developing countries in experimentation and designing innovative environmental programs. A total of 4400 farmers and forest owners including both Pagospor Servicios Ambientales (PSA) participants and non-participants for reforestation, forest conservation and sustainable forest management activities received disbursements. It was found that farm size, human capital and household economic factors, as well as information, significantly influenced participation in PSA program alternatives. The limiting factor in the study was large farm and forest owners who were found to be unreasonably represented among programme participants.

As penned by Arogundade, Adebisi and Ogunro (2011), poverty has earned status and recognition as a serious challenge in the whole world. The researchers investigated the various government policies targeted towards poverty alleviation in Nigeria with an idea of determining the strategic models that would help in effective and efficient implementation to eradicate this dilemma. The survey found that government usually had the power to introduce its own policy. Some policies inherited from successors are gradually either

abandoned absolutely or rendered impotent. The authors submitted that the inadequacy of succession planning was the main factor, but in later stage revealed that some government vividly watched their baby programmes dying prematurely to give birth to another. They further observed that each programme had a different orientation and strategic focus, but targeting one objective. Therefore, the authors recommended that all policies should redirect and serve under the same umbrella, additionally; each unit should be accountable and responsible for its own activities. The outcomes of the investigation concluded on the name "Poverty Alleviation Agency for Nigerians (PAAFN)" derived to house other agencies and to be directly responsible for coordination with the Presidency office.

Mustapha (2014) study is parallel to Arogundade *et al*. (2011). The study revealed that Nigeria had fought poverty since her independence; however, various policy strategies had been implemented with the main goal of eradicating poverty. He noted that in spite of this, the set goals of poverty alleviation were not achieved. The investigation by Yunusa (2012) indicated that policymakers in Nigeria lacked adequate skills and knowledge about the culture of poverty, including the emotional preparedness that people needed to break family generation cycle of poverty and, ultimately, transition out of poverty.

In line with the submissions of previous studies, Okosun, Siwar, Hadi and Nor (2012) attributed the main causes of poverty in Nigeria to bad governance, which stemmed from corruption, and large population resulting in a high level of illiteracy. The outcomes of the studies cited above provide a comprehensive report on the basis of variable selection to empirically examine the impact of programme and participation behaviour of limited resources farmers.

In regards to a government-sponsored programme among Nguni Cattle Development Programme in North West province, Ijatuyi (2016) found that the participants of the scheme recorded a

valuable difference before they got the assistance in terms of extension visits, the source of extension service delivery, the access to affordable markets which were some of the socioeconomic characteristics of the respondents. It was found that factors such as age, marital status, location, farm-size all had both positive and negative level of significance to the level of participation of respondents in this scheme. A list of the socioeconomic characteristics employed for this study wase location, age, marital status, educational status, religion, household size, farming experience, land ownership, size of farm in hectares, personal farm, employment background, years of employment, number of employees, income level, extension visits, source(s) to obtain information on entrepreneurial activities and farming, member of any cooperative society, and out of which a covariance of variable test was done to choose the 10 that was used for the study includes age, farming experience years, farm size, farming land, extension visit, extension source, household size, income level, and educational status.

2.13 Chapter Summary

The chapter focused on reviewing the literature on the concept and background on entrepreneurship, the impacts of entrepreneurs on the economy, the awards and incentives globally and in South Africa, and the lessons on women entrepreneurship globally. The study further explored theoretical framework on agricultural entrepreneurship which includes Innovation theory to agricultural entrepreneurship, Risk bearing and agricultural entrepreneurship, Theory of entrepreneurial growth in agriculture, Economic theory and agricultural entrepreneurship, Agricultural entrepreneur and the exposure theory, and Agricultural entrepreneurship growth in the political system theory. The chapter also reviewed the literature on commercialization, agricultural commercialization, and the importance of

agricultural commercialization and the participation of people in a government-sponsored programme.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The purpose of this chapter is to inform the reader about agro-ecological factors, including location, topography and climate, economic activities, including agricultural and infrastructural development in the study area. This chapter describes the research design, including the study area selection, data collection method and sampling procedures and the data analysis.

3.1 Study area

The North West Province, otherwise called the Platinum Province, as a result of the wealth of the metal it has underground, is the country's fourth-smallest that is completely landlocked. On the national front, the province is bordering Gauteng, Free State, and Limpopo Provinces and on the west borders the Republic of Botswana. The province's total land area is 106,512 square kilometres, taking up 8.7% of South Africa's land area and still accounts for 3.2 million population in 2010, accounting for 7.1% (Brand South Africa, 2015). Four districts make up the Province, which are Ngaka Modiri Molema, Bojanala Platinum, Dr Kenneth Kaunda and Dr Ruth Segomotsi Mompati with Mahikeng as the capital city. Figure 3.1 shows the map of the North West Province.

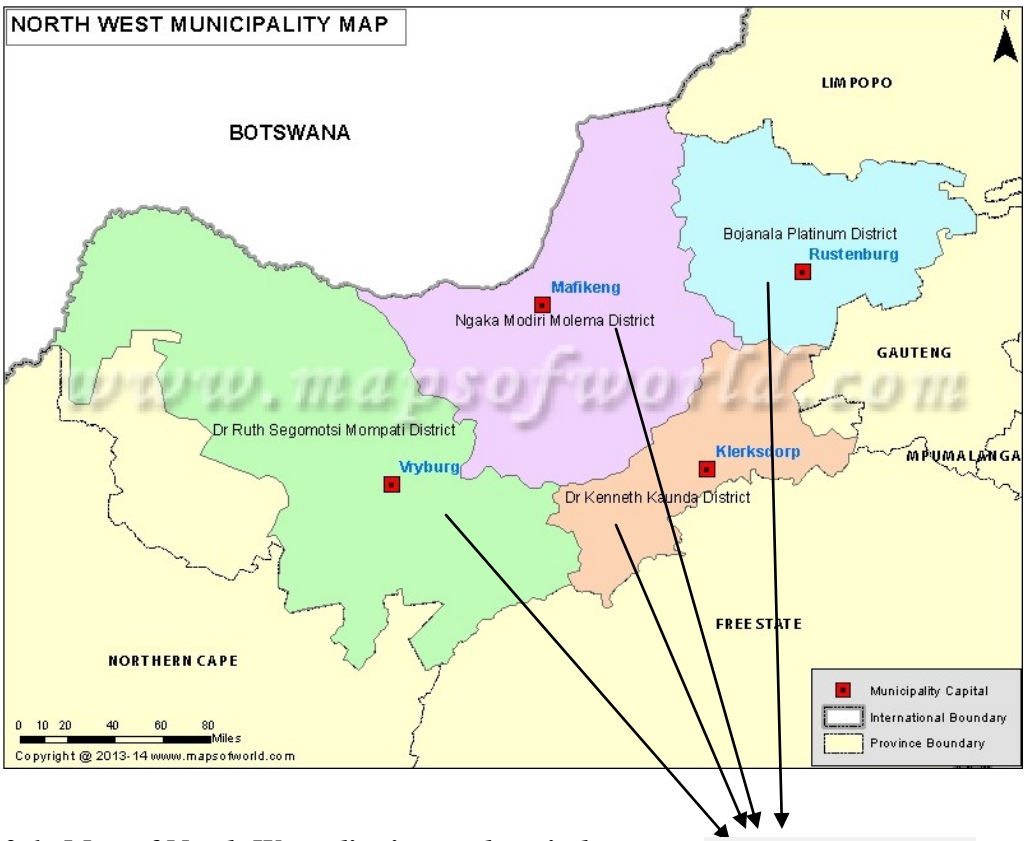

Figure 3.1: Map of North West, districts and capitals

Source: Mapsoftheworld.com (2016)

3.2 Climate of the North West Province

Brand South Africa (2015) highlighted that the Province is located in the southern part of the Kalahari Desert, hence it offers almost year-round sunshine, making suntan lotions and a hat as a prerequisite when visiting the North West Province. SA-Venues (1999-2015) report states that Mahikeng (the capital city) enjoys weather that can be said is the same round the entire province, with towns in the western areas only slightly hotter and those further south a bit cooler. Brand South Africa (2015) further highlighted that the summer months from August to March bring brief but refreshing afternoon thunderstorms. The average rainfall above 300 to 700mm is recorded annually and the summer temperatures range between 22 and 34^{o} C and winter months May to July brings with it dry, sunny days and chilly nights and with

temperatures ranging from an average of 2 to 20^{o} C in a single day. The province is all about authentic African bush experience if properly prepared for is truly special. READ (2015) stated that for the greater part, rain falls during violent conventional storms accompanied by thunder lightning and hailstorms. This kind of rain is common in the Bojanala Platinum District.

3.3 Vegetation

Most of the Bojanala Platinum district and some parts of the central and southern districts of the North West Province have mixed Bushveld vegetation. The sandvaal boom (Terminalia Sericea) and wild Senga (Burkea Africana) which are all tall trees, and elephant grasses (Erasgrostis Pallens) are common features of this vegetation type. Some parts of the southern, central and Bojanala Platinum district have sourish mixed bushveld vegetation. This vegetation consists of a more open acacia savannah with tall dense grass veld, including edible trees and shrubs, which provide browse, and grazing. However, a variety of grasses in this vegetation provides limited grazing value (READ 2015). Dr Ruth Segomotsi Mompati district is dominated by Kalahari thornveld and shrub bushveld. The vegetation is of acacia savannah type in which the common trees are camel thorn (Acacia Giraffe) and karee thorn (Hycium Oxyladium). Common grasses occurring include blue seed grass (Erasgrostis Lehamanniana) and buffalo grass (Anthopora Pubescence). These veld types are also found in the western areas of Ngaka Modiri Molema District (Molopo and Ditsobotla) and in northern parts (Lehurutshe). Figure 3.2 showing the different veld types.

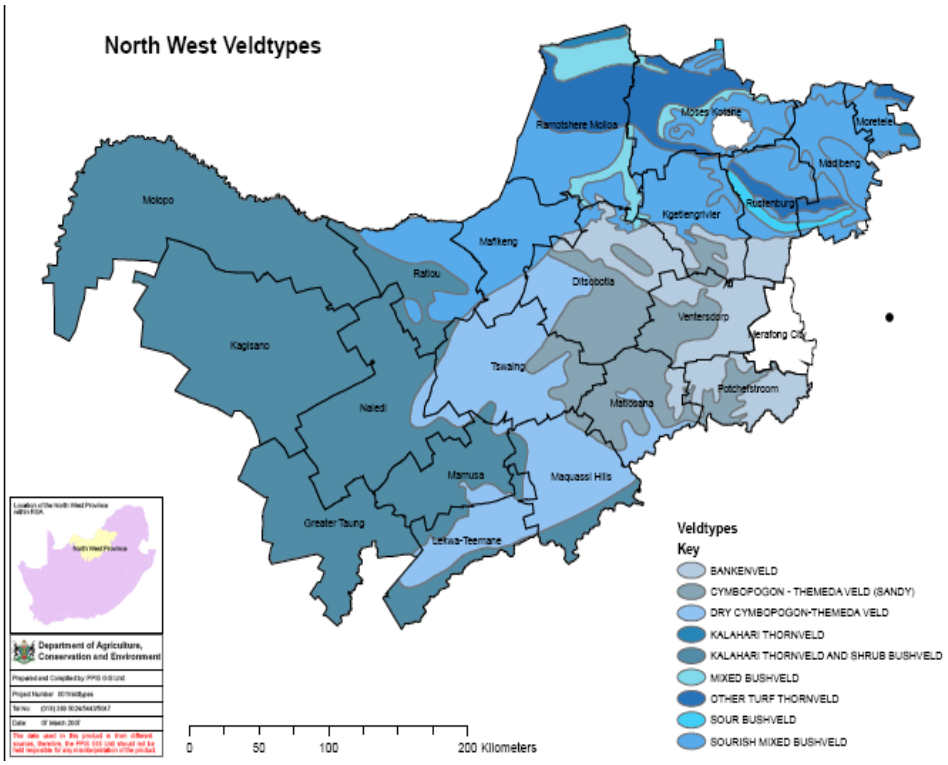

Figure 3.2 North West Province showing the veld types

Source: READ (2015) GIS Unit

3.4 Major economic activities in the province

3.4.1 Mining

According to NAFCOC (2014), "most economic activity is concentrated in the southern region of the Dr Kenneth Kaunda district between Potchefstroom and Klerksdorp as well as in Rustenburg and the eastern region of the Bojanala district. Mining is the major contributor to the North West Province's economy and represents almost a quarter of South Africa's mining industry as a whole, with Rustenburg and Brits producing more Platinum than any other single area in the world". A quarter of South Africa's gold, granite, marble, fluorspar, and diamonds are also produced in the North West Province. Ijatuyi (2016) indicated that most of the mining

activities are concentrated in a band that stretches from the west of the Pilanesberg southwards through the Bafokeng area and parallel to the Magaliesberg towards Marikana and Brits in the east. Furthermore, the mines along this band have spawned many industries that manufacture supplementary products. Two of the world's largest platinum mines are found in the Bojanala Platinum District.

3.4.2 Tourism

A popular tourist attraction and a recreational area of enthusiastic local community dwellers and as well as for visitors is the Hartbeespoort Dam. Ijatuyi (2016) mentioned that the water that is used for irrigation purpose in the district is supplied by Hartbeespoort Dam. The Magaliesberg, Pilanesberg, and Borakalalo nature reserves provide wonderful opportunities for game viewing and for experiencing the wealth of nature in South Africa, while the popular destinations of Sun City and the Lost City offer local and foreign tourist's excitement of a different type. Another famous and major tourist attraction in the province is the Taung skull fossil site. This site covers about 45km with so many natural wonders such as limestone waterfall, the blue pools, a collection of natural rock basins, streams and caves in a lush river valley (South African Tourism, 2017).

3.4.3 Agricultural activities

The province is known as the "Texas of South Africa" because it produces the largest beef with Hereford cattle being the most popular. North West Province is well known for cattle farming, especially at Stella-land near Vryburg, while the areas around Rustenburg and Brits are fertile, mixed-crop farming land. The Province is the major producer of white maize in the country, with

sunflower and peanuts being the other most important crops produced in the Province (North West, 2015).

3.5 Research design

This research adopted a descriptive and a quantitative method approach using survey design, as it is useful for investigating a variety of issues and problems. Ijatuyi (2016) defined a descriptive research design as a scientific method, which involves observing and describing the behaviour of a subject without influencing it in any way. Struwig and Stead (2001) defined quantitative research as conclusive research involving a large representative sample and fairly structured data collections procedure. The study profiled how Awards Incentives and Competition improve entrepreneurial development among female farmers in North West province.

3.6 Population of the study

Makapela (2015) defined population as a set of elements that the researcher focuses upon and which the results obtained by testing the sample will be generalized. Furthermore, Allison, Hilton, O'Sullivan, Owen and Rothwell, (2016) described the population as the larger collection of all the subjects that one wishes to apply one's conclusion too. In this study, the target population was the total of 520 women farmers from each district in the province and from different enterprises who attended the summit on female empowerment through awards incentives and competitions (READ, 2015); and enrolled in the AIC programme, to which the rubric of assessment for the overall goal of agricultural commercialisation was expected.

3.7 Sampling technique and sample size

The sampling method used in this study is the probability sampling method, which is a simple random sampling. A simple random sampling is defined as one in which every unit in the population has a chance ($0<X<1$) of being selected in the sample which can be accurately determined. The study focused on Ngaka Modiri Molema, Dr Ruth Segomotsi Mompati, Dr Kenneth Kaunda and Bojanala Platinum districts. From these districts, eighty-one (81) female participants were willing from Ngaka Modiri Molema townships and villages, 30 female participants were randomly selected from Dr Ruth Segomotsi Mompati townships and villages, 16 female participants were randomly selected from Dr Kenneth Kaunda townships and villages, and 29 female participants were randomly selected from Bojanala Platinum district townships and villages. The exact number of the total female farmers not just the participants of the programme in each district could not be asserted, at the time of data collection from the provincial department of agriculture, they had not conducted a headcount according to the Director of the state-owned enterprise.

To determine the sample size in the study, Krejcie and Morgan's (1970) of determining sample size was used which is shown as $S= x^2 NP(1-P)†e^2(N-1)+x^2P(1-P)$.

Where S= sample size

N= population size

e= acceptable sampling error

x^2= chi-square of degree of freedom 1 and confidence 95% = 3.841

P= proportion of population (if unknown 0.5).

Accordingly, through verbal confirmation by some of the representatives involved in the female entrepreneurial programme in the provincial head office, the sample size of a population of 520

was 226, in which only 156 respondents participated due to the right to voluntary participation in the study shown in table 3.1.

Table 3.1: Determining sample size of a known population

Table for Determining Sample Size of a Known Population					
N	**S**	**N**	**S**	**N**	**S**
10	10	100	80	280	162
15	14	110	86	290	165
20	19	120	92	300	169
25	24	130	97	320	175
30	28	140	103	340	181
35	32	150	108	360	186
40	36	160	113	380	191
45	40	170	118	400	196
50	44	180	123	420	201
55	48	190	127	440	205
60	52	200	132	460	210
65	56	210	136	480	214
70	59	220	140	500	217
75	63	230	144	550	226

Source: Krejcie and Morgans (1970)

3.8 Data collection and measurements of variables

Data were collected using a structured questionnaire based on the objectives of the study. The data were elicited from respondents through the administration of 226 semi-structured questionnaires, which were written in English in the study area. Trained enumerators who understood the language of the respondents were then employed to translate the questions into their local dialect. This is to enable an unhindered flow of communication between the

respondents and the enumerators. However, most questionnaire copies from Kenneth Kaunda District were administered by email consequent to their own decision due to their busyness. The questionnaire was divided into six sections that included both open and closed-ended questions. Section (A) elicited information about the demographic characteristics of the respondents. Some of the independently measured variables in relation to this section are as follows:

Location: measured in the exact district;

Age: measured in actual years;

Marital status: measured with married, single, divorced and widowed and others;

Educational status: measured standard, matric, diploma, degree and other;

Religion: measured with Christianity, Islam, traditional, others;

Household size: measured in the actual number of persons in the household;

Farming experience: measured in number in years;

Land ownership: measured in dichotomy form i.e. yes and no;

Farm size: measured actual in hectares;

Employment background: measured as Employed (0), Unemployed (1), others (3);

Years of employment if employed measured in the range of 1-3, 4-6, 7-9 and ≥ 10 years;

Number of employees: measured with an actual number of persons;

A number of employees employed in full and part-time: measured in a range of 1-3, 4-6, 7-9 and ≥ 10 years;

Income level per annum: measured with the actual amount;

Extension visits: measured in dichotomy form of yes (0) or no (1);

Information sources: measured with colleagues, friends, relatives, extension agents, radio, television, newspaper and others; and

Membership of cooperative society: measured in the dichotomy form of yes (0) and no (1).

Section (B) solicited information about the entrepreneurial activities and areas in which the business operates. Respondents were asked to tick from the list of entrepreneurial activities provided which their enterprise(s) fell under. This was measured with 1 for livestock production, 2 for fish farming/aquaculture, 3 for vegetable production, 4 for poultry production, 5 for food crop production and 6 for those that are involved in animal products farming.

Section (C) solicited information about the respondent's level of participation in award, incentives and competition programme in the province. Participation was measured in dichotomy form which was yes or no; respondents were then asked to indicate if (NO) from the category provided of 1 for lack of exposure, 2 for lack of training infrastructures, 3 for lack of awareness, and 4 for non-nomination/selection. Furthermore, respondents were provided with a 3-point Likert type scale of "regularly", "occasionally", and "rarely" to indicate from the 17 statements of activity for participants of the award, incentives and competition provided by the provincial department of agriculture, the mean and ranking of their answers was later calculated to show the level of participation. The mean point was derived from the descriptive analysis carried out on SPSS version 25.

Section (D) requested information about the benefits of the award incentives and competition programme and this was measured using a 4 point Likert-type scale of "very beneficial", "beneficial", "little beneficial" and "not beneficial", it consisted of 12 statements of benefits provided by the provincial department of agriculture.

Section (E) solicited information about the constraints faced by the female farmers in the province. Respondents were presented with 26 constraints which were expected of them from a 4 point Likert-type scale "very severe", "severe", "little severe" and "not severe".

Section (F) focused on production cost and returns. The following indicates how the values for different variables were measured:

The value of farm produce was measured with the actual amount;

The value of livestock sales was measured with the actual amount;

The production value was also measured with the actual amount;

Feed cost per month was measured with the actual amount;

Veterinary cost per month was measured with the actual amount;

Labour cost per month was measured with the actual amount;

Transportation cost to market per month was measured in the actual amount;

Value of goods and services acquired through market transaction was measured with the actual amount;

Value of goods and services acquired through cash transaction was measured with the actual amount;

The gross value of farm produce was measured with the actual amount;

The total fixed cost of production was measured with the actual amount;

The total variable cost was measured with the actual amount;

The total cost of production was the sum of the actual total fixed cost and the total variable cost;

The total revenue was measured with the actual amount; and

The profit was measured with the actual amount. The dependent variable was the entrepreneurship development proxied from the generated commercialisation index.

3.9 Validity and Reliability

A board of experts in Agricultural Extension and Agricultural Research carried out the face validity of the questionnaire. The panel comprised of senior researchers and lecturers in the

Department of Agricultural Economics and Extension of the North West University as well as other researchers, community and senior management officers in the Rural Environment and Agricultural Development. The reliability of the instrument was pre-tested on 10 female entrepreneurs in Kenneth Kaunda District. These entrepreneurs were not part of the main research. A split-half analysis was carried out to test the reliability of the questionnaire and this generated a coefficient with R=0.81.

3.10 Data analysis

3.10.1 Descriptive statistics

Descriptive statistics are a technique used to depict a sample's attributes. Descriptive instruments such as percentage and frequency tables mean mode and the median were used in the study. Descriptive statistics were employed for the specific objectives, including those focusing on the socioeconomic characteristics of the respondents, their entrepreneurial activities, their level of participation in the AIC programme, benefits of AIC programme, and the constraints faced by female farmers. Continuous variables at the interval level of measurements were generated from the rating scale used for female farmers' levels of participation in the AIC programme, benefits of AIC programme, and the constraints faced in AIC. The pooled scores from the enterprises generated the household commercialization index, which was later used as proxy for entrepreneurship development for each of the female farmers participating in AIC.

3.10.2 Inferential statistics

The reason for inferential statistics, as indicated by Quinlan (2011), is to achieve ends that go beyond the data. In view of the study of a population sample, it is used to induce what the entire

population can think or do. Statistical inference uses the sample population data to determine (or deduct) the population from which the sample was derived.

In the study, Probit Regression and the Household Commercial Index (HCI) as a proxy for Entrepreneurship development were used. The one-way ANOVA test was carried out showing the differences in levels of entrepreneurship development based on participations, benefits and constraints on AIC. In the scale typed by Likert, respondents were offered three to seven or even nine pre-coded responses with a neutral point, as Mcleod (2008) also stated. In statistics, the Probit Regression model is used because it is the standard method for estimating binary category dependent variable, following Shemfe and Oladele (2011), Entrepreneurship development was categorised into low and high commercialisation as shown in the regression form (where respondents with low entrepreneurship development coded as 0 and 1 with high entrepreneurship development). The Probit regression model is shown as:

$Pj = \beta qi + \mu i$..... (1)

Pr is the level of commercialisation, β is the parameter estimate, q is the independent variable and μ is the error term.

In the Probit model, the discrete dependent variable Y is a rough categorization of a continuous, but unobserved variable Y*. If Y* could be directly observed then standard regression methods would be used (such as assuming that Y* is a linear function of some independent variables, for example:

$Y^* = \beta_1 X_{1i} + \ldots \beta_j X_{ji} + ui$ …….. (2)

In this study, Y* is the Household Commercialization Index which is used as a proxy for Y* Entrepreneurship development.

Ratio used in analyzing commercialization data:

Household Commercialization Index (HCI) (output side) =

$$\frac{\text{Value of agricultural sales in markets}}{\text{Agricultural production value}} \quad \ldots\ldots\ldots\ldots \textbf{(1)}$$

Household Commercialization Index (HCI) (input side) =

$$\frac{\text{Value of inputs acquired from market}}{\text{Agricultural production value}} \quad \ldots\ldots\ldots\ldots \textbf{(2)}$$

3.11 Ethical Consideration

The study took into account the ethical consideration that was addressed through voluntary participation, and the respondents' right to privacy was respected by obtaining direct consent from them.

Anonymity was guaranteed to make respondents be free and allow them to give as much information as needed to support the research. Informed Consent was explained clearly to the respondents to enable them decide whether they would participate in the study or not. Their willingness to participate in the research was formally got through verbal consent and then through appending their signatures on the consent forms. Ethical clearance was obtained from the ethics committee of the North-West University Mafikeng campus.

3.12 Project outcome

The creation of Awards Incentives and Competition among female farmers in the province is envisaged to bring about improvement among women in general, including women with disabilities so as to develop more commercial farmers than subsistence farmers. The effect of the success of this programme in the province allowed for competition with peers at the National level, which threw, READ into a better light and grade in the national Department of Agriculture, Forestry, and Fisheries' annual report. The outcome of the research added to the existing literature about female entrepreneurship, its constraints, and contribution to the economy. In addition, the research showed the effect of participating in AIC on female entrepreneurship development in the province as well as its effects on their level of commercialization as well as the benefits for the respondents.

3.13 Chapter Summary

The chapter gave a proper description of the study area and the research methodology employed for the study. A descriptive and quantitative research design was employed for the effect of award incentives and competition in the study area. The sampling technique, the research instrument used for data collection, validity and reliability of the instrument and the data collection procedure were discussed. A simple random sampling method was employed in the selection of 226 female farmers in the study area. However, 156 respondents were interviewed. Descriptive and inferential statistics were used in analyzing the data. Models for the inferential statistics that is Probit Regression and the Household Commercialization Index were all detailed. The one-way ANOVA test was carried out to demonstrate the differences in the level of entrepreneurship development based on participation, benefits and constraints on AIC.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the findings of the descriptive statistics of the study. The aim of this study was to assess the effect of Awards Incentives and Competition programme among beneficiaries in the North-West Province.

4.1 Results and discussion of the descriptive statistics of the respondents

The following section outlines the different variables that were analyzed and discussed. These variables are location, age, marital status, household size, educational level, the farming experience of respondents, religion, land ownership, farm size in a hectare, total annual income.

4.2 Demographic Characteristics of the Respondents

4.2.1 Location

The findings of the study, as presented in Table 4.1, indicate that the majority of the respondents with 51.9% were situated in the Ngaka Modiri Molema District, which is made up of towns such as Mahikeng, Ramatlabama, Lokaleng, Lehurutse, and others. 19.2% of the respondents were situated in Dr Ruth Segomotse Mompati, while 18.6% were situated in Bojanala district and 10.3% were situated in the Dr Kenneth Kaunda District. This implies that majority of the beneficiaries were located in the biggest district of the province which is Ngaka Modiri Molema.

Table 4.1 Location distribution of respondents

Location (District)	Frequency (%)
Ngaka Modiri Molema	81(51.9)
Ruth Segomoti Mompati	30(19.2)
Bojanala	29(18.6)
Kenneth Kaunda	16(10.3)
Total	**156(100)**

4.2.2 Age

The age of the respondents was requested. Their response in Table 4.2 showed that their age range between 21-80 years was with the mean age of 46 years. The results further indicated that most of the respondents were between 41-50 years (30.2%), and 51-60 years (21.8%) respectively. Only 20.5% of the respondents were 31-40 years, while 17.9% were between 61-70 years. A further 5.8% indicated that they were between 21-30 years while only 3.8% of the respondents indicated to be between 71-80 years. This result agrees with the findings of Kock (2008) who also identified that women in his study area were in the age bracket of between 40 to 49 years. It further agrees with Henning and Akoob (2017) who had respondents who were over 40 years in a similar study.

Table 4.2 Age distribution of respondents

Age (Years)	Frequency (%)
21-30	9(5.8)
31-40	32(20.5)
41-50	47(30.2)
51-60	34(21.8)
61-70	28(17.9)
71-80	6(3.8)
Total	**156(100)**

4.2.3 Marital status

The findings as displayed in Table 4.3 showed that the majority of the respondents (54.5%) were married. This can positively affect the productivity and welfare of the business since other family members like the husband and children can assist thereby serving as a source of labour. 32.7% of the respondents were single while 7.7% and 5.1% were either widowed or divorced respectively. This finding also agrees with Meyer (2009) who also highlighted that the majority of the respondents in a similar study identified their marital status to be married.

Table 4.3 Marital status distribution of the respondents

Marital status	Frequency (%)
Married	85(54.5)
Single	51(32.7)
Divorced	8(5.1)
Widowed	12(7.7)
Total	**156(100)**

4.2.4 Educational status of the respondents

Most of the respondents (45.5%) as indicated in Table 4.4 showed that they had matric (school certificate) as their basic form of education. This agrees with the findings of Hennings and Akoob (2017) who recorded that most of their respondents only completed their matric. This was closely followed by 24.5% indicating that they possess a diploma, while 14.7% indicated that they had the old standard form of education and degrees, and about 0.6% indicated they had no form of education. From the education profile of the respondents, they appear to be educated because as far back as almost two decades, Land Bank of South Africa (2000) regarded farmers who passed standard five as literate enough to make decisions about production and the requirements of agriculture.

Table 4.4 Educational distribution status of respondents

Educational status	Frequency (%)
Standard	23(14.7)
Matric	71(45.5)
Diploma	38(24.5)
Degree	23(14.7)
None	1(0.6)
Total	**156(100)**

4.2.5 Race

The result of the study on race indicated that all the respondents belonged to the black race in which case they were homogenous racially. None of the respondents indicated being White, Coloured, Indian or other race in the study area.

4.2.6 Religion

The result shows that the majority with 92.3% indicated that they were Christians and only 7.7% of the total respondents indicated that they were in other forms of belief. None of the respondents indicated that they were either Muslims or a traditional worshipper. Table 4.5 shows the different distribution. This implies that the majority believed in the form of the religion they chose.

Table 4.5 Religion distribution of respondents

Religion	Frequency (%)
Christianity	144(92.3)
Islam	0(0)
Traditional worshipper	0(0)
Others	12(7.7)
Total	**156(100)**

4.2.7 Household size of the respondents

Household size refers to the number of people living together in a household including non-family members. As indicated in Table 4.6, the majority of the respondent (51.2%) indicated that they had between 4-6 members in their households, 31.6% of the respondents had from 7-9 members, 10.9% indicated they had between 1-3 members, while 5.7% indicated that they had between 10-12 members in their households. About 0.6% only indicated that their household size was between 13-15 members. The mean household size was found to be 6. Similar studies by Omotayo *et al*. (2018), Adeniyi *et al*. (2016) and Baloyi (2011) found that the average household size in a similar study was between 5 and 6 persons. The implication of this is that the female farmers in the study area can moderately have access to labour from their household members who could provide them with some free labour thereby enabling them to benefit from a reduction in labour cost.

Table 4.6 Household size distribution of respondents

Household size	Frequency (%)
1-3	17(10.9)
4-6	80(51.2)
7-9	49(31.6)
10-12	9(5.7)
13-15	1(0.6)
Total	**156(100)**

4.2.8 Farming experience of respondents

The findings on respondents' farming experience were presented in Table 4.7. The results indicated that 51.3% of the respondents had a farming experience of not more than 10 years. 35.3% indicated that they had between 11-20 years, 6.4% showed they have been farming between 21-30 years while 4.5% stated that they have been involved in farming activities between 31-40 years. 1.9% and 0.6% of the respondents indicated a farming period of between 41-50 years and 51-60 years respectively. The mean farming years was found to be between 11-20 years.

Table 4.7 Farming experience of respondents

Farming experience (years)	Frequency (%)
1-10	80(51.3)
11-20	55(35.3)
21-30	10(6.4)
31-40	7(4.5)
41-50	3(1.9)
51-60	1(0.6)
Total	**156(100)**

4.2.9 Land ownership

Respondents were asked to state whether they owned the land they farmed on or not. From the findings shown in Table 4.8, a significant number of the respondents (60.3%) did not own the land they farmed on; and only 39.7% owned their farmland. This indicates that land ownership for these respondents may be a hampering factor in increased productivity. According to FAO (2000) many factors including possession or ownership of land are essential factors to farming and lack of these is a thorny issue in developing countries.

Table 4.8 Land ownership distribution of respondent

Land ownership	Frequency (%)
Yes	62(39.7)
No	94(60.3)
Total	**156(100)**

4.2.10 Farm size

From the results displayed in Table 4.9, a majority of the respondents with 91.3% had a farm size of between 1-500 hectares on which they practised their entrepreneurial activities. About 3.6% of the respondents stated that their farming activities covered between 501-1000 hectares, while 3.2% and 1.9% indicated that they practised their farming activities on 1001-1500 and 1501-2000 hectares of land respectively. The mean farm size was around 150 hectares. This result agrees with Phatudi-Mphahlele (2016) who found the average farm size to be 93.8 hectares in a similar study in Gauteng province in South Africa. This implies that most respondents had the minimum requirement to benefit from the programme.

Table 4.9 Farm size distribution of respondents

Farm size (Hectares)	Frequency (%)
1- 500	143(91.3)
501- 1000	6(3.6)
1001- 1500	5(3.2)
1501- 2000	1(1.9)
Total	**156(100)**

4.2.11 Non-ownership of farmland

Respondents were asked to state the status of the non-ownership of their farmlands. Their responses are displayed in Figure 4.1. It was observed that the respondents were using either a family land, lease land or a communal land with 10.3%, 17.9% and 30.1% respectively for their entrepreneurial land activities. 41.7% of the respondents did not answer this question because they were farming on their personal land. This implies additional cost on the running of their entities.

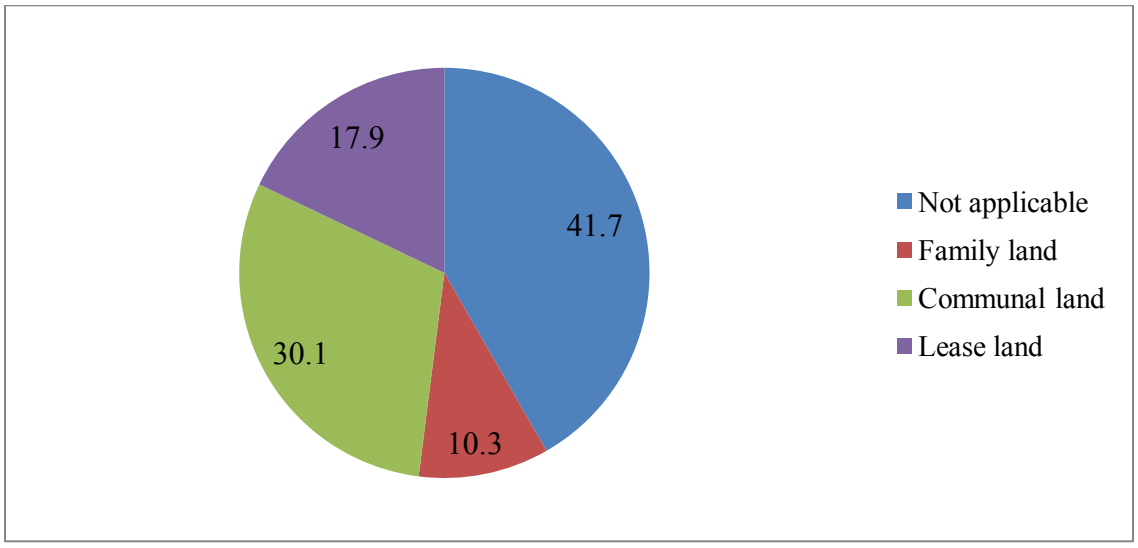

Figure 4.1 Respondent distribution of non-ownership of farmland

4.2.12 Employment background of respondents

Respondents were requested to state their employment background before becoming farming entrepreneurs. Their responses are displayed in Figure 4.2. The result indicated that 79.5% of the respondents were actually employed before becoming full-time entrepreneurs while only 20.5% showed that they were not employed prior to becoming entrepreneurs. This result agrees with the findings of Ngare (2013) who also had respondents who were employed before becoming entrepreneurs. This implies that respondents are knowledgeable about the importance of a conducive working environment for optimum production.

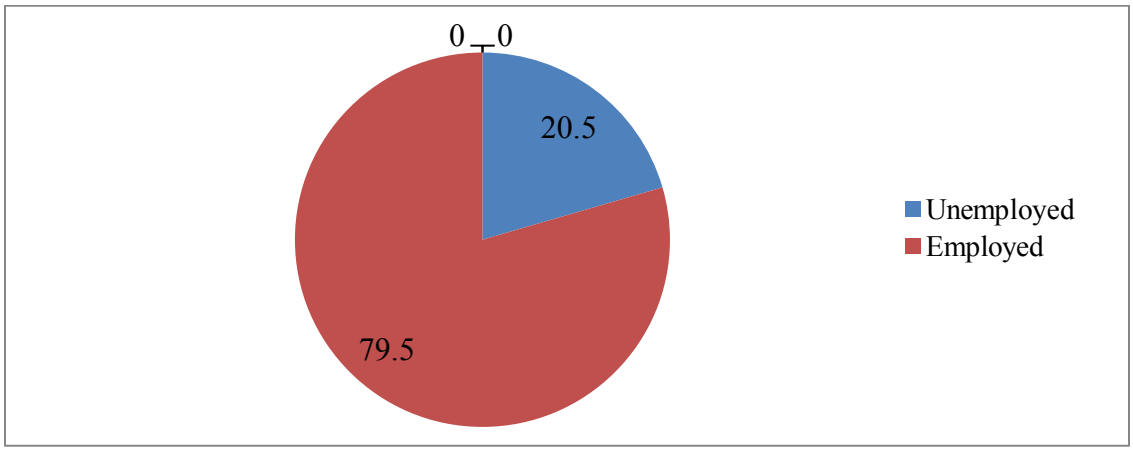

Figure 4.2 Distribution of the employment background of respondents

4.2.13 Respondents' years of employment

The study respondents were asked the number of years if employed, they worked for before going into full-time entrepreneurship. The results showed that 41% of respondents were employed for more than 10 years before becoming full-time entrepreneurs, 23.1% indicated that they were employed for 7-9 years, 19.8% did not answer this question. 9.0% and 7.1% of the respondents indicated that before they became entrepreneurs, they had between 4-6 years and 1-3 years of employment respectively. Table 4.10 shows the distribution of respondents based on their years of work. The average number of years in which respondents were employed was 4-6

years. This implies that respondents had a good experience of working and have a good knowledge of how to run their own business.

Table 4.10 Distribution of respondents according to their years of employment before becoming full-time entrepreneurs

Years of employment	Frequency (%)
Not applicable	31(19.8)
1-3 years	11(7.1)
4-6 years	14(9.0)
7-9 years	36(23.1)
More than 10 years	64(41.0)
Total	**156(100)**

4.2.14 Number of employees by the respondents

Furthermore, a question focused on the number of employees that the study participants were able to employ since becoming full-time entrepreneurs. Their responses are displayed in Table 4.11. Respondents indicated that they have been able to create employment for individuals which is one of the basic characteristics of being an entrepreneur. Majority with 73.7% indicated that they had up to five individuals employed in their business. 20.5% of the respondents stated that they have employed between 6-11 persons while only 5.8% of the respondents had between 12-17 farmworkers in their entrepreneurial activity. The result agrees with the findings of Nsengimana (2017) as well as Kumar (2015) who noted that though women entrepreneurs represent a very small percentage of all entrepreneurs, they are very important source in terms of economic process and progress. They also help to create employment for themselves and other people thereby alleviating societal problems especially those relating to management, organisation and economic issues. The mean number of employees was found to be between 0-5 persons.

Table 4.11 Distribution of the numbers of employees

Number of employees	Frequency (%)
0-5 persons	115(73.7)
6-11 persons	32(20.5)
12-17 persons	9(5.8)
Total	**156(100)**

4.2.15 Distribution of full-time employees by employment

Table 4.12 shows that 62.8% indicated that they gave full-time employment to between 1-3 people. Furthermore, the result showed that 17.9% had 4-6 full-time employees in their business. In addition, 11.5% indicated that 7-9 people were employed in their facilities on a full-time basis. 5.9% said they had no employees in their establishment reason being that they explore family labour and finally 1.9% said more than 10 people were employed in their establishment. The average number of full-time employees is 1-3. This result agrees with Modiba (2009) that found 2 to 25 workers were employed on their farms in a similar study.

Table 4.12 Distribution of full-time employees by respondents

Full-time employees	Frequency (%)
Not applicable	9(5.9)
1-3 persons	98(62.8)
4-6 persons	28(17.9)
7-9 persons	18(11.5)
More than 10	3(1.9)
Total	**156**

4.2.16 Distribution of part-time employees by respondents

Apart from engaging full-time workers in their business, women were found to also engage part-time workers as displayed in Table 4.13. Results show that 80.1% of the respondents did not employ any part-time persons as employees on their farm. 16.7% of the respondents indicated that they employed between 1-3 persons, 2% stated they employed between 4-6 persons as part-time farm-workers, while 0.6% had between 4-6 persons and more than 10 persons respectively. The mean number of part-time employees was found to be between 1-3 persons. Though Modiba (2009) indicated that respondents in a similar study did not employ many temporary workers, they still had part-time workers of about 2-4 persons on their farm.

Table 4.13 Distribution of part-time employees

Part-time employees	Frequency (%)
Not applicable	125(80.1)
1-3 persons	26(16.7)
4-6 persons	3(2.0)
7-9 persons	1(0.6)
More than 10 persons	1(0.6)
Total	**156(100)**

4.2.17 Income level per-annum of respondents

The finding in Table 4.14 shows that 97.4% of the respondents had an annual income of less than ZAR 500,000 ($33,605.00). Only 1.4% of the respondents made an annual income between ZAR 500,000-1,000,000 ($33,605.00-$67,208.88). About 1.2% of the respondents stated that they had an annual income of between ZAR 1,500,001-6,000,000 ($100,813.39-$403,098.48). The mean income per-annum was found to be less than ZAR 500000 ($33,605.00). The result agrees with

the findings of Ijatuyi (2016) who also found the total annual income of livestock farmers in the province to be about ZAR 200,000 ($13,436.80).

Table 4.14 Income distribution of respondents

Income level (ZAR)	Frequency (%)
500000	152(97.4)
5000001-1000000	2(1.4)
1500001-2000000	1(0.6)
5500001-6000000	1(0.6)
Total	**156(100)**

4.2.18 Extension visits and source(s)

Respondents were requested to indicate whether or not they had access to extension services. The findings in Table 4.15 indicate that majority of the respondents (78.8%) had access to extension service visits, only 21.2% of the respondents indicated that they did not have extension visits on their farms. This implies that most of the respondents had access to extension services. These findings support Spens (1986) that access to agricultural extension is one of the instruments for the improvement of agriculture and the quality of life in rural areas all over the world. There is a link or synergy between research, teaching and extension chain. Ragasa, Berhane, Tadesse and Taffesse (2013) indicated that development experts as crucial in achieving agricultural development, poverty reduction, and food security are mostly emphasizing agricultural extension. Evidently, the major source of information for respondents in the study area was from extension agents with 36.5%. Approximately 22.4% of respondents reported receiving extension information from their families, followed by 18% of respondents seeking information from friends. 10.9% of respondents reported receiving information from their colleagues, while 9.0%, 2.6% and 0.6% all reported receiving information from another source,

television and radio. The mean source of information for respondents was from extension agents in the study area.

Table 4.15 Respondents distribution of extension visit

Extension visit	Frequency (%)	Source	Frequency (%)
Yes	123(78.8)	Colleagues	17(10.9)
No	33(21.2)	Friends	28(18.0)
		Relatives	35(22.4)
		Extension agent	57(36.5)
		Radio	1(0.6)
		Television	4(2.6)
		Other sources	14(9.0)
Total	**156(100)**		**156(100)**

4.2.19 Membership of cooperative society

Respondents were asked about their affiliation with cooperative societies. Their responses are displayed in Table 4.16. It was noted that most of the respondents with 50.6% did not affiliate with any cooperative society, while 49.4% had a membership to a cooperative society. Furthermore, it was also shown that 48.7% of the respondents indicated that their membership and affiliation to a cooperative society had contributed to their entrepreneurial activities while 51.3% did not answer because they were not members of any cooperative society. Cooperatives help farmers to solve general economic problems, business uncertainty, excessive costs, and market failures hence fill gaps that other private enterprise and businesses ignore such as the provision of affordable healthy and organic foods, provision of utility, provision of affordable credits and affordable markets.

Table 4.16 Respondents' distribution according to cooperative society membership

Cooperative society	Frequency (%)	Cooperative contribution	Frequency (%)
Yes	77(49.4)	Yes	76(48.7)
No	79(50.6)	No	80(51.3)
Total	**156(100)**		**156(100)**

4.2.20 Distribution of respondents according to the degree of the helpfulness of their cooperative society

From the results illustrated in Table 4.17, respondents that were members of cooperative societies indicated different degrees of assistance they received from their cooperative societies. Also, the table shows the frequency and percentage of respondents who were not having affiliations with any cooperative society. The table further shows that respondents indicated a different degree of helpfulness to what their cooperative societies assist with. The majority (75.6%) indicated that by having no affiliation with a cooperative society, they did not receive any substantial assistance in regards to accessing affordable land lease. 12.9% of the respondents stated that their cooperative society has been assisted fairly. 10.9% highlighted that the degree of assistance has been somewhat poor and only 0.6% stated that it has been a very well experience from their cooperative society.

In regard to financial assistance, 62.2% of the respondents did not receive any assistance from their cooperative society. 28.2% stated that they were assisted fairly while 8.3% and 1.3% indicated that they got assisted poorly and very well respectively. Furthermore, 53.8% of the respondents did not receive any assistance in regards to getting affordable training programmes, 34% indicated fair assistance with getting affordable training programme while 10.3 and 1.9%

indicated a poor and very well the degree of assistance respectively when it comes to getting affordable training programme from their cooperative membership.

Respondents indicated different degrees of assistance received from their affiliation or not to a cooperative society with regards to extension and advisory services, 51.9% of the respondents did not receive any assistance in extension and advisory services because they were not belonging to any cooperative society. 39.1% indicated a fair degree of assistance about accessing extension and advisory services while 5.8% indicated that they have received a poor degree of assistance and only 3.2 % showed a very good level of assistance with extension and advisory services from their membership to a cooperative society.

The result further showed that 62.2% of the respondents did not access credit facilities because of their non-affiliation to a cooperative society. 28.8% indicated that they received a fair contribution of credit facilities from their cooperative societies, and about 5.8% indicated that poor assistance has been rendered so far and only 3.2% stated that indeed their cooperative societies have assisted them very well.

Also, 57.7% of the respondents were not assisted by a cooperative society because they were not affiliated to any while 30.1% indicated that fairly, they have been assisted when it comes to the provision of the affordable market, and 7.1% showed a poor degree of assistance. Lastly, 5.1% stated that the degree of assistance by their cooperative society as being very well. This agrees with the study of Xaba (2015) who also reported his respondents to have had access to the affordable market.

58.3% of the respondents highlighted that as a result of non-membership, no degree of assistance was recorded. About 27.6% indicated that a fair degree of assistance was rendered to them by their cooperative society regarding the provision of a healthy market, while 9.6% of the

respondents stated that the assistance rendered to them by their cooperative society was very well and 4.5% indicated the degree of assistance as poor. This implies that respondents who do not have any cooperative membership do not have access to entrepreneurial assistance got by those who are members.

Table 4.17 Distribution of respondents according to their cooperative society's degree of help

Cooperative assistance	**Frequency (%)**				
	N. A	**P**	**F**	**V. W**	**N. A**
Affordable land lease	118(75.6)	17(10.9)	20(12.9)	1(0.6)	75.6
Financial assistance	97(62.2)	13(8.3)	44(28.2)	2(1.3)	62.2
Affordable training programme	84(53.8)	16(10.3)	53(34.0)	3(1.9)	53.8
Extension/Advisory services	81(51.9)	9(5.8)	61(39.1)	5(3.2)	51.9
Provision of credit facilities	97(62.2)	9(5.8)	45(28.8)	5(3.2)	62.2
Provision of affordable market	90(57.7)	11(7.1)	47(30.1)	8(5.1)	57.7
Provision of healthy market	91(58.3)	7(4.5)	43(27.6)	15(9.6)	58.3
Total	**156(100)**				

Note: N. A= Not at all, P= Poorly, F= Fairly, V. W= Very Well

4.3 Entrepreneurial Activities and Areas in Which your Business Operates

4.3.1 Livestock production

Table 4.18 shows that most respondents were involved in animal husbandry, with either goat, cattle, pigs, sheep or other forms of livestock. The result agrees with Moyo (2016) that cattle were the most common type of livestock kept in the study by all households. In addition, livestock is as important as value crops in rural production, although there are strong variations in households and locations. Livestock was seen as a strategic investment in times of financial distress when cash is unavailable and a cash source. This result does not agree with the findings

of Modiba (2009) who found mixed farming to be the core entrepreneurial activity and livestock farming the second activity in a similar study.

Table 4.18 Livestock farming distribution of respondents

Livestock production	Frequency (%)
Yes	118(75.6)
No	38(24.4)
Total	**156(100)**

4.3.2 Fish farming/Aquaculture

From the result in Table 4.19, only a single respondent with 0.6% was involved in fish farming as the entrepreneurial activity in the study area. The majority with 99.4% were not. It was also noted that only African catfish was farmed by the respondent. This might be peculiar with the study area as not much number of fish farmers is reported in the study area as a result of the low market for aquafarming.

Table 4.19 Fish farming/Aquaculture distribution of respondents

Fish farming/Aquaculture	Frequency (%)
Yes	1(0.6)
No	155(99.4)
Total	**156(100)**

4.3.3 Vegetable production

It is highlighted in Table 4.20 that only 45.5% of the respondents were involved in vegetable production while 54.5% were not involved in vegetable farming production. From the result, respondents farmed vegetables that include potato, onion, cabbage, carrot, tomato, spinach, lettuce, beetroot, cucumber, butternut, green beans, and green pepper. Kerr (2016) stated that vegetable farming is highly competitive, it is demanding and arguably the most difficult branch

of agriculture in which to succeed, especially for new entrants. Warid (2018) indicated that vegetable farming is primarily for use as human food which can be the reason why most respondents were not into vegetable farming in the study area. Good education on vegetable farming as well could improve the cultivation of vegetables in the study area.

Table 4.20 Vegetable production distribution of respondents

Vegetable production	Frequency (%)
Yes	71(45.5)
No	85(54.5)
Total	**156(100)**

4.3.4 Poultry production

From all indication in Table 4.21, only 26.9% of the respondents were involved in poultry farming production, while 73.1% indicated that they were not involved in poultry farming. It was also discovered that chicken, turkey, and ducks were the poultry animals that respondents were involved with as an entrepreneurial activity. Kriel (2017) stated that the difficulties experienced by poultry producers can generally be attributed to three factors: farm blindness, poor access to markets resulting in cash-flow and production management problems, and inefficient disease management. Gwala (2013) defines farm blindness as farmers' lack of knowledge resulting in them regarding the situation on their farm as being the norm everywhere. When farmers do not know enough about farming poultry, they end up with poor bird performance and animal welfare. They are, however, unaware that this is a problem because they do not know any better.

Table 4.21 Respondent distribution according to poultry production

Poultry production	Frequency (%)
Yes	42(26.9)
No	114(73.1)
Total	**156(100)**

4.3.5 Food crop production

Majority of the respondents (85.5%) from Table 4.22 were not involved in food crop production. Only about 14.7% indicated that they were involved in food crop production. Maize, Wheat, sugarcane were some of the crops indicated that are being grown in the study area. The finding supports that of Brandsouthafrica (2012) that highlighted that maize is most widely grown among other crop production and is a very important export product. The importance of food crop production cannot be overemphasized.

Table 4.22 Distribution of respondents according to food crop production

Food crop production	Frequency (%)
Yes	23(14.7)
No	133(85.3)
Total	**156(100)**

4.4 Level of Participation in the programme

4.4.1 Award participation or shortlisting

From Table 4.23, respondents with about 44.2% indicated that they have participated in the award or have been shortlisted before, while the majority with 55.8% indicated that they have not been shortlisted or even participated in the award before. It was further shown why most of the respondents have not participated in the award and incentive programme. About 35% of the

respondents indicated that they have not been nominated nor selected before. Hence their non-participation at 15.4% of the respondents alluded to the fact that they have no awareness of the existence of such programme, 14.7% expressed that they are not exposed to such opportunities and 2.6% stated that there was no training for them to be able to participate in such programme.

Table 4.23 Distribution of respondents into award participation or shortlisting

Participation	**Frequency (%)**	**Reason for not participating**	**Frequency (%)**
Yes	69(44.2)	Not applicable	70(44.9)
No	87(55.8)	No exposure	23(14.7)
		No training	4(2.6)
		No awareness	24(15.4)
		No nomination/selection	35(22.4)
Total	**156(100)**		**156(100)**

4.4.2 Agricultural gifts

From the result in the Table 4.24, 56.4% of the respondents indicated that they have all received an agricultural gift before, and 43.6% stated that they have not been given any form of an agricultural gift before. A gift can be in the form of a grant or a material entity, which can be used to promote and expand production. Crampton (2015) stated that "an agricultural government grant is the awarding of financial assistance to your agribusiness. Grants generally do not need to be paid back by the recipient. However, there will be specific criteria for determining who will be eligible for a grant and once awarded, strict guidelines around what the fund can be used for. D'Haese *et al*. (2011) also highlighted that gifts in form of grants were a major important source of income in a similar study in Limpopo province South Africa.

Table 4.24 Distribution of respondents to agricultural gifts received

Received agricultural gift	Frequency (%)
Yes	88(56.4)
No	68(43.6)
Total	**156(100)**

4.4.3 Encouragement of subsistence farmers into becoming commercial farmers

The result displayed in Table 4.25 indicates that majority of the respondents (89.7%) stated that they believe that the introduction of Award Incentives and Competition would encourage more subsistence farming women to progress into becoming large-scale commercial farmers. Only 10.3% highlighted that they do not think the introduction of Award Incentives and Competition would facilitate the progress of subsistence farming into becoming commercial farmers. Some researchers have identified important headlines that might have hindered so many farmers from migrating from the subsistence level of farming into commercial farming. Several investigations have been carried out on the marketing of emerging farmers in order to increase knowledge of the difficulties that limit such migration from subsistence to commercial agriculture. Khapayi and Celliers (2016) identified that the South African economy has little room for emerging farmers. Chikazunga and Paradza (2012) opined that there is no strong support system available to support previously disadvantaged farmers, causing such farmers to be unable to take advantage of the various opportunities that the South African government has been instituting" (Moloi 2008 & Anyike 2011).

Table 4.25 Introduction of Award Incentives and Competition to encourage subsistence farmers into becoming commercial farmers

Introduction of Award Incentives and Competition	Frequency (%)
Yes	140(89.7)
No	16(10.3)
Total	**156(100)**

4.4.4 Degree of the level of participation in agricultural activities

The sector of agriculture, forestry and fisheries plays a key role in our economy and our lives. It supplies us and many different nations with a wide range of food and non-food products such as fibres, wood and nursery products. It contributes positively to our balance of foreign trade and in terms of total employment remains one of the country's larger industries. Agriculture, forestry and fisheries include two large sub-sectors of crop production and animal production as well as three smaller sub-sectors-forestry and logging, fishing and support for agriculture. The result in Table 4.26 highlights the different degrees of the level of participation on respondents with the statement of activity for participation in AIC. A list of statements was given to the respondents which were from the guidelines provided by the provincial department of agriculture in which they were expected to tick which applies to them. (Refer to Appendix F for the table of the total score on participation). A majority (66.7%) indicated that they have been involved regularly in agricultural activities on a full-time basis. This result agrees with the report by the Department of Agriculture, Forestry and Fisheries report (2009/10) that indicated that the fishing industry has approximately about 27000 (16000 in the primary sector and 11000 in the secondary and tertiary sectors) full-time farmers particularly in the Western Cape. In South Africa at large, the report further shows that there are about 500,000 to 900,000 people who are participating in one form

of fishing at the moment. Only 23.7% indicated that their involvement in agriculture, forestry and fisheries can be recorded as occasional participation, while 9.6% indicated that they rarely participate in agricultural activities on a full-time basis.

Mazibuko (2017) stated that "in rural areas, particularly in the developing world, women play a key role in running households and contributing to agricultural production and other activities". Furthermore, 64.7% of the participants indicated that they are willing to participate in development programmes geared towards encouraging women regularly, while 25% indicated that they occasionally participate in programmes geared towards encouraging women and only 10.3% said that they rarely participate in such programmes that are geared to encourage women in the practice of agriculture. This result agrees with Mazibuko (2017) who found that 76.9% of her respondents indicating they would consider participating in community development projects if they were offered an opportunity to do so. It also agrees with the finding of Kaaria, Osorio, Wagner and Gallina (2016) that identified that women's active willingness to participate at various levels within producer organizations to have been found to positively contribute to different developmental outcomes.

In contemporary society, the contribution of women in development programmes cannot be overlooked. For example, regardless of the expansive number of women being engaged in subsistence activities, a few women are step by step getting to be instrumental in activities to enhance the livelihoods of their families (Republic of South Africa, 2015). Mazibuko (2017) communicated that women take an interest far-less in development projects than their male partners and when they do, they just take an interest amid implementation stages. This implies that women are excluded at crucial levels of the development process, such as

conceptualization, planning and evaluation. It would thus be said that the participation of women and communities in general, particularly from socioeconomically deprived contexts, is vital to the achievement of endeavours to lessen and eventually eliminate poverty and underdevelopment.

Furthermore, 58.3% of the respondents indicated their willingness to act as mentors to other emerging entrepreneurs or other colleagues on a regular basis, 23.1% indicated that they act as mentor occasionally while about 18.6% stated that their willingness to act as a mentor is on a rare basis.

Terblanché (2011) stated, "mentoring brings individuals together on a one-to-one basis, bypassing bureaucracy and institutions. It brings people together, real people talking to real people". In this way, mentoring involves someone who is older (or somehow more experienced) working with someone who is young and, by definition, less experienced. Mentorship is not linked to company management but helps empower less experienced farmers to do so. Schoepp (2012) pointed out that mentoring means managing them so that an individual can change his or her life prevail in school, business and relationships, lead and love, and that there are currently no national long-term mentoring programs for women in agriculture anywhere in the world, although there are state, provincial, regional or industrial programs with varying degrees of commitment.

The result is in line with the findings of Schoepp (2012) who in a global survey found that 51.3% of the respondents indicated that the reason for a mentor was for personal growth and 48.7% responded that the role of the mentor was for business growth. Becoming a mentor does not only mean teaching and empowering others but in the process to improve on oneself through personal

growth or business growth. Hence, it can be affirmed that mentorship is a vital and integral aspect of agriculture because the lack of the creation of a proper mentorship structure in agriculture for women from women might lead to the business being crippled.

Majority of the respondents (61.5%) indicated that on a regular basis, they demonstrate innovative ideas and creativity in improving their level of production. Also, 26.3% further indicated that in occasional instances, they exhibit and demonstrate innovations and creativity in order to improve their production. Finally, only 12.2% stated that on a rare basis is their degree of innovative and creative thoughts and ideas in improving their production. According to Manzini (2015), knowledge application in entrepreneurship is a positive indicator when it comes to output in innovation and creativity. This means that the innovative knowledge application is expected to positively improve production of the entrepreneur.

Blankley and Moses (2009) pointed out that innovation is widely recognized as essential for economic growth and progress. Innovation is essential to ensure the future achievement and competitiveness of businesses in an undeniably focused global economy. Innovation essentially involves the introduction of new or significantly improved goods or services to the market or the use of new or significantly improved processes for the production of goods and services. Innovative companies are in this line able to meet customers and customer needs and wishes.

Furthermore, RIIS and The Embassy of Switzerland South Africa (2016) indicated that WEF's Global Competitiveness Index shows a slow but steady innovative climb in the innovation pillar, with the 2015/16 ranking placing South Africa as the 38th most innovative nation in the world and has improved in production. The findings on innovations corroborate the previous study of Moses, Sithole, Blankley, Labadarios, Makelane and Nkobole (2012) which observed that 65.4%

of their respondents were engaged in innovative activities for improvement of entrepreneurial enterprises. These show that innovation and creativity are important factors in enterprises activities.

The result further indicated that majority of the respondents (66%) indicated that they were involved in the ownership, management and decision-making aspects of the enterprise on a regular occasion; 21.8% stated that they were involved occasionally while only 12.2% indicated on a rare basis. In addition, with reference to the willingness of respondents to participate in media-related activities, 45.5% indicated that they were willing to participate regularly, 29.5% indicated that they were willing to participate occasionally while 25% stated that they were willing to participate on rare basis in the activities of the media.

With respect to respondents' access to all relevant documents for verification purposes, a large percentage of the respondents (53.2) had regular access, 27.6% stated that they occasionally had, while about 19.2% indicated that they rarely had. Respondents were requested to indicate their willingness to surrender themselves for the purpose of interviews during the adjudication process, findings in Table 4.26 reveal that 51.9% were willing on a regular basis, 28.2% were willing on occasional basis while only 19.9% stated that they were rarely willing to be interviewed for all adjudication process.

From the result, 49.4% of the respondent indicated that for the purpose of fairness, they are regularly willing to allow competition coordinates to take video footage to support information on their entry forms, while 28.8% indicated occasionally, and 21.8% expressed their willingness on a rare basis.

A majority (66%) indicated their commitment to caring for and ensuring sustainability on the natural resources they use regularly. About 27.6% stated that they occasionally while only 6.4% indicated a rare basis. Musvoto, Nortje, De Wet, Mahumani, and Nahman (2015) mention that in developing countries including South Africa, agriculture is a crucial sector for driving the green economy. Jensen, Peoples, Boddey, Gresshoff, Henrik and Alves (2012) opined that a "greener agricultural sector potentially offers solutions to some of the social, economic and environmental challenges that humans are currently faced with. These include achieving food security for a rapidly expanding population, lowering the risk of climate change and meeting the increasing demand for energy in the face of dwindling reserves of fossil fuels".

According to World Bank (2013), "agriculture is a significant contributor to African economies as it employs 65% of Africa's labour force and accounts for 32% of the Gross Domestic Product (GDP)". Therefore, agriculture in Africa is essential to maintain livelihoods, reduce poverty and contribute to economic growth and development. Musvoto *et al*. (2015) further highlighted that "agriculture alone cannot be expected to drive green economic growth and poverty reduction at all levels. As an inherently resource-intensive primary sector, agriculture's contribution to GDP will always be small relative to its use of land, water and other resources. However, a sustainable agriculture sector is critical to food security and livelihoods, which suggests that the greening of the agricultural sector is a key component of a green economy, alongside other sectors. Among the key sectors expected to drive South Africa's green economy are agriculture; food production and forestry; resource conservation and management; clean energy and energy efficiency; sustainable waste management; and sustainable transport and infrastructure".

The Department of Agriculture (2001) identified sustainable resource management as one of its core strategies for South African Agriculture. The objective of this strategy is to enhance

farmers' capacities to use resources in a sustainable manner and to ensure the wise use and management of natural resources. This will require a long-term view with a clear vision and values that will guide the present use of resources to ensure their long-term supply. This strategy will impact on land care, land redistribution, land use in the urban environment, zoning of high-potential agricultural land, and the preservation of sensitive land areas, biological diversity and water systems.

Furthermore, the Department of Agriculture (2001) reports that "central to this strategy is to preserve agricultural biodiversity and to promote the sustainable use of soil and water through the enhancement of crop and livestock productivity in intensified and more sustainable farming systems. Farmer participation is the key to the success of the strategy. In addition, innovative approaches to linking natural resource management to support programmes could provide a win-win situation which will result in short-term economic benefits for the farmers and at the same time contribute to the longer-term objective of preserving the natural resource base".

Also, the Department of Agriculture (2001) proposed that the "degradation of soil and water resources poses a serious threat to the country. Strategies need to be designed to overcome the causes of degradation. Strong institutional support structures and incremental change to existing farming practices will be required to improve soil and water use. Introducing more robust farming systems through well-coordinated rotation systems could make a major contribution in this regard". All things considered, the effective usage of agricultural support services could make a significant contribution to sustainable use and the management of natural resources.

It was further shown that a majority (66.7%) of the respondents indicated that they demonstrate responsible use of production inputs such as pesticides, fertilizers and vaccines regularly on their enterprise, while 24.3% indicated occasionally. Only 9% indicated on a rare basis. FAO (2018)

discussed that water pollution from unsustainable agricultural practices poses a serious risk to human health and the planet's ecosystems. This is a problem that is often underestimated by policymakers and farmers alike. It was stated that the biggest source of water pollution today is agriculture as it is responsible for the biggest discharge of large quantities of agrochemicals, organic matter, sediments and saline trading into water bodies.

As a result, FAO (2018) continued that agriculture is the single largest producer of wastewater by volume, and livestock generates far more excreta than do humans do. As land use has intensified, countries have greatly increased the use of synthetic pesticides, fertilizers and other inputs, which corroborate with the findings of the study that indicated a large percentage of the respondents showing that they demonstrate responsible use of pesticides, fertilizers and other farming production inputs to their environs.

The result in Table 4.26 shows that a majority (71.2%) stated that they demonstrate an understanding of improved farming methods regularly, 17.3% indicated occasionally, while 11.5% stated on a rare basis. This result agrees with the findings of Naidoo, London, Rother, Burdorf, Naidoo, and Kromhout (2010) that also had a majority of women improving their methods of mixing and applying pesticides in KwaZulu-Natal province in South Africa. They had about 92.9% of their respondents now employing the use of manual knapsack pesticide applicator from using buckets, brooms and some of their bare hands.

The result also highlighted that 67.3% of the respondents have been regularly involved in subsistence activities for at least two years in the agricultural sector, while 23.1% reported occasionally, only 9.6% indicated rarely.

A majority (66.7%) indicated in their enterprise that they regularly demonstrate a good sense of financial management and bookkeeping of their activities, while 23.7% indicated occasionally, while 9.6% stated on a rare basis. The result supports GrainSA (2015) that the application of proper financial management and bookkeeping is the only way to demonstrate a farming business that is financially successful and on the right path. Furthermore, it was stated that today's farmer should know the many management functions thoroughly, regardless of the size of the farm business. Although all management functions are important, the financial management of the farming company combines everything. Financial definition and monitoring of agricultural activities will give the farmer an overview of the entire farming business, resulting in better-informed business decisions. Financial management is not only the link between all aspects of farming but also oils the wheels that enable the company to operate more effectively. FBC (2017) also emphasized that farmers need to be good producers to be successful. Farmers must also be financial managers, which means maintaining accurate farm records and establishing and maintaining a proven system of record keeping. Farmers need an accurate system of farm records, bookkeeping and financial planning to track all operations of the farms. It is critical to keep the books up to date for overall farm management and ongoing profitability.

The study also showed that a majority (76.3%) indicated that the produce from their enterprises is sold locally/internationally to enhance economic growth on a regular basis, 13.4% indicated occasionally, while 10.3% indicated on a rare basis. This finding does not agree with the results of Khapayi and Celliers (2016). A similar study in the Eastern Cape pointed out that respondents did not have access to local markets because they were told that their agricultural products did not meet the standards and requirements specified by local supermarkets and that they lacked a

certificate for good agricultural products. On the contrary, the findings of the study support Seyoum, Lemma and Karippai (2011) that respondents in East Hararghe in the district of Kombolcha sell their products locally in different marketing centres, with the majority (70%) marketing their products in Kombolcha city to retailers, wholesalers and consumers.

When asked about the creation of both temporary and permanent jobs, a majority with 82% indicated on a regular basis, and they assist to make the environment a better place when it comes to job creation/unemployment. Respectively, 9% of the respondents indicated that they occasionally and rarely provide temporary and permanent jobs. This result supports Rural Environment and Agricultural Development (READ 2017) who stated that a female entrepreneur who won an award in the North West Province currently have provided 15 permanent jobs and at least 30 temporary jobs for her farm workers all in the bid to contribute towards the provincial economic growth and job creation objective. The Department of Agriculture, Forestry and Fisheries (DAFF 2017) stated that female entrepreneurs in the North West Province are doing a good when it comes to the creation of temporary and permanent jobs from their enterprises.

A majority of the respondents (78.2%) indicated that they regularly contribute to the well-being of their employees, 10.9% indicated occasionally and rarely respectively. Making the lives of the employees either temporary or permanent staffs was expected as this is one of the main reasons for becoming entrepreneurs and also assisting in the economic development of the North West Province in general. Rachelson (2017) stated that "through their entrepreneurial activities, high-potential female entrepreneurs increase their own economic welfare and improve the economic and social fabric of society through job creation, innovative products, processes, and services, and cross-border trade".

Furthermore, it was stated that the creation of temporary and permanent jobs was ranked 1st with an average score of 1.27. The contribution to the well-being and development of employees was ranked 2nd with an average score of 1.33. The products of their companies being sold locally/internationally in order to increase economic growth were ranked 3rd with an average score of 1.34. The demonstration of an understanding of improved farming methods and the commitment to care for and ensuring sustainability of the natural resources were ranked fourth with an average score of 1.40 respectively. Demonstration of responsible use of production inputs such as pesticides, fertilizers and vaccines, and participation in subsistence activities for at least two years in the agricultural sector was ranked fifth with an average score of 1.42. Involvement in agriculture, forestry and fisheries on a full-time basis and a good sense of financial management and book-keeping were ranked sixth and with average scores of 1.43. The willingness to participate in development programmes aimed at encouraging women and involvement in companies' ownership, management and decision-making aspects was ranked seventh and the average score was 1.46. With an average score of 1.51, the willingness to act as a mentor was ranked 9th with an average score of 1.60, access to all relevant documents for the verification process was ranked 10th with an average score of 1.66. The willingness to be interviewed in all adjudication proceedings was ranked 11th and with an average score of 1.68. The willingness to allow competition coordinates to take video footage to support information on the entry forms was ranked 12th and with an average score of 1.72, while the willingness to participate in all media-related activities was ranked 13th with an average score of 1.79.

Table 4.26: Respondents distribution into the willingness to participate in AIC programme

Statement activities of willingness to participate in AIC	Frequency (%) Level of participation			Mean	Rank
	Reg	Occ	Rar		
Involvement in agriculture, forestry and fisheries on a full time basis	104(66.7)	37(23.7)	15(9.6)	1.43	6th
Willing to participate in development programmes geared towards encouraging women	101(64.7)	39(25.0)	16(10.3)	1.46	7th
Willing to act as a mentor	91(58.3)	36(23.1)	29(18.6)	1.60	9th
Demonstrate innovation and creativity in improving production	96(61.5)	41(26.3)	19(12.2)	1.51	8th
Involvement in the ownership, management and decision-making aspects of the entity	103(66.0)	34(21.8)	19(12.2)	1.46	7th
Willing to participate in all media related activities	71(45.5)	46(29.5)	39(25.0)	1.79	13th
Access to all relevant documents for verification process	83(53.2)	43(27.6)	30(19.2)	1.66	10th
Willing to be interviewed at all adjudication process	81(51.9)	44(28.2)	31(19.9)	1.68	11th
Willing to allow competition coordinates to take video footage to support information entry forms	77(49.4)	45(28.8)	34(21.8)	1.72	12th
Commitment to caring for and ensuring sustainability of the natural resources	103(66.0)	43(27.6)	10(6.4)	1.40	4th
Demonstrate responsible use of production inputs such as pesticides,	104(66.7)	38(24.3)	14(9.0)	1.42	5th

fertilizers, and vaccines					
Demonstrates an understanding of improved farming methods	111(71.2)	27(17.3)	18(11.5)	1.40	4th
Demonstrates involvement in subsistence activities for at least a period of two years within the agricultural sector	105(67.3)	36(23.1)	15(9.6)	1.42	5th
Demonstrating a good sense of financial management and bookkeeping	104(66.7)	37(23.7)	15(9.6)	1.43	6th
Produce is sold locally/internationally to enhance economic growth	119(13.4)	21(13.4)	16(10.3)	1.34	3rd
Creation of temporary and permanent jobs	128(82.0)	14(9.0)	14(9.0)	1.27	1st
Contribution to employee well-being and development	122(78.2)	17(10.9)	17(10.9)	1.33	2nd
Total		**156(100)**			

Note: Reg= Regularly, Occ= Occasionally, Rar= Rarely

4.5 Benefits of Awards Incentives and Competition Programme

The respondents were asked to state the degree of benefits they derived from their participation in the AIC programme. Their responses showed that they benefited at various degrees while some other respondents did not benefit from the same programme as shown in Table 4.27 (Refer to Appendix F for the total score on benefits in AIC). Regarding training exposure, 35.3% of the respondents indicated that they have been very beneficial, 28.8% indicated that they have not benefited, 19.9% stated that they have benefited while 16% stated that they have benefited in a little way. The findings support Greenfoundation (2017) that expressed that they have been able to expose about 450 training sessions to farmers so far. This result agrees with Subedi (2008) who found out that majority of the women farmers in her study indicated that they benefited

from the training exposures they attended. The majority with 59.5% indicated that had been exposed to some farm training programme. The study also agrees with Lukuyu, Place, Franzel, and Kiptot, (2012) who stated that many of the farmers in their study area all had farming training for between 8-11 years and have subsequently turned volunteer farmer trainers as well.

Furthermore, the result shows that 37.2% of the respondents indicated that they have not benefited in terms of skills acquisition. This means most of the farmers believe in their own ways of farming, while 26.9% stated that skill acquisition has been very beneficial. The remaining 21.8% and 14.1% stated that they have benefited and benefited little respectively. Edclues (2016) stated that skill acquisition adds meaning to life, especially as one is given a position of authority or as one commands respect. It leads to self-employment and rapid industrialisation, and one saves money to cater for urgent needs and family matters. Kiernan, Barbercheck, Brasier, Sachs and Terman (2012) also support the findings in which most of the women in their study improved in skills acquisition.

The findings further indicated that when it came to peer learning, 32.7% of the respondents indicated that they have benefited, 30.8% indicated that they have benefited but in a little way, 28.2% stated that this has been very beneficial to them, only 8.3% stated that they have not benefited. The finding of the study supports Kiernan *et al*. (2012) who found that 54% of their women farmers also benefited and increased their knowledge of skills and topics from peer learning and participation in community programmes.

Respondents at 36.5% indicated that only a little benefit of improvement can be seen and recorded when it comes to record-keeping and business plan. A total of 26.3% stated that the improvements in their farming enterprises when it comes to record-keeping and business plan

were beneficial and very beneficial respectively, only 10.9% highlighted that there was no improvement in terms of record-keeping and business plans in their enterprise. The result supports Heins, Beaulieu and Altman (2010) as well as Simpson, Wison, and Young (1998) who all highlighted that respondents were familiar with financial planning and book-keeping task in their study.

About 32.7% of the respondent indicated that when it comes to the documentation of plans and activity, they have benefited in a little manner, while 29.5% indicated that the AIC programme has been beneficial for their enterprise. Among the respondents, 22.4% and 15.4% indicated a degree of very beneficial and not beneficial respectively. The majority of the respondents with 41.7% indicated that AIC has been little beneficial to them in terms of the growth in the employment rate, while 25% indicated that it has been very beneficial to them while 21.8% and 11.5% indicated that AIC has been beneficial and not beneficial respectively.

It was also noted that 37.2% of the respondent stated that the improvement in stocking rate has been of a little benefit to them, while 27.6% indicated that improvement in stocking rate has been very beneficial to their enterprise, 23.7% and 11.5% stated that improvement in stocking rate has been beneficial and not beneficial respectively to their enterprises.

At 32.7%, respondents indicated that improvement of the view and image of business as a result of AIC has been beneficial and little beneficial respectively while 21.8% indicated that it has been very beneficial. Only 12.8% indicated that AIC has not been beneficial to them nor their enterprises. The image of the business says a lot, and if it is proper, then there is a great chance of the enterprise having more customers. The result also indicated that 35.3% of the respondents

benefited from customer growth, 34% indicated a small benefit, while 20.4% and 10.3% pointed out that AIC was very beneficial and not beneficial.

Furthermore, 34.6% of the respondent highlighted that the expansion of their business entity has been little beneficial. A total of 27.6% indicated that the degree of expansion of their business has been beneficial while 23.1% indicated that it has been very beneficial when it comes to the expansion of their business entity. Only 14.7% stated that they have not benefited from the expansion of their business entity. The result in Table 4.27 further shows that 37.8% of the respondent indicated that commitment from employees has been little beneficial to their enterprise. A total of 31.4% indicated that they have benefited as a result of the commitment from their employees, 21.8% stated that the commitment from employees has been very beneficial only 9% indicated that there has not been any benefit from the commitment of employees. Hoek (2016) highlighted that "believing in a goal and wanting to achieve it also reflects a certain degree of commitment from employees". Smith (2016) stated that employees who are committed to their organization generally feel a connection with their organization, feel that they fit in and, feel they understand the goals of the organization. The benefit of such employees is that they tend to be more determined in their work, show relatively high productivity and are more proactive in offering their support. Furthermore, committed employees bring benefit to the organization through their determination, proactive support, relatively high productivity and awareness of quality.

Quite a percentage of respondents (34.6) indicated that the improvement in job satisfaction was a little beneficial, while about 28.8% indicated that the improvement of job satisfaction has been very beneficial, and 27.6% highlighted that they have benefited from the improvement in job satisfaction. Lastly, 9% indicated that they have not benefited from the improvement in job

satisfaction. The findings of this study disagree with Asiedu-Darko and Amanor (2016) who found the majority (77%) of the respondents in their study to be job dissatisfied. Employee job satisfaction is a vital element in the increase of productivity and growth in every organization. The finding supports Okwoche, Eziehe and Agabi (2015) who indicated that the majority of their respondents had moderate job satisfaction on their farms amongst their employees.

It was highlighted from the study the level of importance of the benefit indicators given to the participants. The mean score and the ranking of each benefit statement showed which the participants indicated they benefited from in descending order. Skill acquisition with a mean score of 1.38, was ranked 1st. Documentation of plans and activity with a mean score of 1.59 and the expansion of business with a mean score of 1.59 were ranked 2nd respectively. Growth in the employment rate with a mean score of 1.60 was ranked 3rd. Training exposure with a mean score of 1.62 was ranked 4th. Improvement of view and image of business with a mean score of 1.63 was ranked 5th. Commitment from employees with a mean score of 1.66 was ranked 6th. Improvement in stocking rate with a mean score of 1.67 was ranked 7th. Record keeping and business plan with a mean score of 1.68 were ranked 8th. Improvement in job satisfaction with a mean score of 1.79 was ranked 9th. Lastly, with a mean score of 1.81, peer learning was ranked the 10th as benefited by the respondents.

Table 4.27 Respondents' degree of distribution into benefits in AIC Programme

Benefits in AIC programme	Frequency (%)				Mean	Rank
	N. B	L. B	B	V. B		
Training exposure	45(28.8)	25(16.0)	31(19.9)	55(35.3)	1.62	4th
Skills acquisition	58(37.2)	22(14.1)	34(21.8)	42(26.9)	1.38	1st
Peer learning	13(8.3)	48(30.8)	51(32.7)	44(28.2)	1.81	10th
Expected record keeping and business plan	17(10.9)	57(36.5)	41(26.3)	41(26.3)	1.68	8th
Documentation of plans and activity	24(15.4)	51(32.7)	46(29.5)	35(22.4)	1.59	2nd
Growth in the employment rate	18(11.5)	65(41.7)	34(21.8)	39(25.0)	1.60	3rd
Improvement in stocking rate	18(11.5)	58(37.2)	37(23.7)	43(27.6)	1.67	7th
Improvement of view and image of business	20(12.8)	51(32.7)	51(32.7)	34(21.8)	1.63	5th
Growth of customers	16(10.3)	53(34.0)	55(35.3)	32(20.4)	1.66	6th
Expansion of business	23(14.7)	54(34.6)	43(27.6)	36(23.1)	1.59	2nd
Commitment from employees	14(9.0)	59(37.8)	49(31.4)	34(21.8)	1.66	6th
Improvement in job satisfaction	14(9.0)	54(34.6)	43(27.6)	45(28.8)	1.76	9th
Total		**156(100)**				

Note: N. B= Not Beneficial, L. B= Little Beneficial, B= Beneficial, V. B= Very Beneficial

4.6 Constraints faced by Female Farmers in AIC programme

There was the need to find out if the female entrepreneurs which are the focus of this study faced any problems in their entrepreneurial activities. Thus, they were to identify as many as they faced from a list of constraints. Their responses are displayed in Table 4.28. (Refer to Appendix F for the table of the total score on constraints in AIC).

Table 4.28 Degree of constraints faced by respondents

Constraints	Responses Frequency (%)				Mean	Rank
	Very severe	Severe	Little severe	Not Severe		
Lack of adequate infrastructure	43(27.6)	62(39.7)	31(19.9)	20(12.8)	1.82	14th
Lack of power supply	51(32.8)	35(22.4)	40(25.6)	30(19.2)	1.69	10th
Lack of transportation	48(30.8)	40(25.6)	49(31.4)	19(12.2)	1.75	11th
Lack of support from financial institution	72(46.1)	50(32.1)	34(21.8)	0(0)	2.00	18th
Lack of access to high value market	55(35.3)	52(33.3)	39(25.0)	10(6.4)	1.97	17th
Lack of skilled employees	41(26.3)	34(21.8)	22(14.1)	59(37.8)	1.37	5th
Lack of proper management	21(13.5)	27(17.2)	21(13.5)	87(55.8)	0.88	2nd
Inadequate technological know-how	21(13.5)	71(45.4)	48(30.8)	16(10.3)	1.62	8th
Too much competition	28(17.9)	65(41.7)	48(30.8)	15(9.6)	1.68	9th
Lack of proper and adequate information	34(21.8)	62(39.8)	54(34.6)	6(3.8)	1.79	13th
Lack of proper opportunities for small businesses	34(21.8)	71(45.5)	47(30.1)	4(2.6)	1.87	15th
Lack of support for the survival of small businesses	38(24.4)	71(45.5)	42(26.9)	5(3.2)	1.91	16th

Lack of training facilities	42(26.9)	53(34.0)	42(26.9)	19(12.2)	1.76	12th
Cost of running a business	65(41.7)	55(35.5)	32(20.4)	4(2.6)	2.16	21st
Poor educational system	30(19.2)	50(32.1)	40(25.6)	36(23.1)	1.47	6th
High crime rate	77(49.4)	45(28.8)	18(11.5)	16(10.3)	2.17	22nd
Lack of reliable employees	32(20.5)	25(16.0)	36(23.1)	63(40.4)	1.17	4th
Problems with suppliers	25(16.0)	50(32.1)	62(39.7)	19(12.2)	1.52	7th
Lack of family support	11(7.1)	24(15.4)	33(21.2)	88(56.3)	0.73	1st
Limited skills in preparing a good proposal for a bank loan	75(48.1)	48(30.8)	25(16.0)	8(5.1)	2.22	23rd
Lack of self confidence	24(15.4)	26(16.7)	32(20.5)	74(47.4)	1.00	3rd
Tax policies	81(51.9)	34(21.8)	22(14.1)	19(12.2)	2.13	20th
Lack of business role-models	41(26.2)	38(24.4)	53(34.0)	24(15.4)	1.62	8th
Lack of collateral to apply for bank loans	74(47.4)	38(24.4)	29(18.6)	15(9.6)	2.10	19th
The fear of failure	56(36.0)	23(14.7)	47(30.1)	30(19.2)	1.62	8th
Lack of internet services	121(77.6)	12(7.7)	13(8.3)	10(6.4)	2.56	24th
Total		**156(100)**				

It was noted that 39.7% of the respondents indicated that the lack of adequate infrastructure was severe, 27.6% indicated very severely while 19.9% indicated little severe and 12.8% indicated that it was not severe. Henning (2017) highlighted that "women's roles and responsibilities in Sub-Saharan Africa are made more difficult and time-consuming as a result of the problems

caused by a lack of basic infrastructure and services at the local level, such as clean water, electricity, reliable transportation and modern communication".

Chirwa (2004) opined the important role infrastructure and service play in rural development and rural livelihood systems. The result corroborates with Chirwa (2004), who noted that the main constraint in the provision of rural road infrastructure is the lack of financial resources for the development of rural road networks. Baloyi (2010) highlighted from a similar study carried out in Limpopo that "farmers do not have access to on-farm infrastructures such as store-rooms and cold-rooms to keep their products in good condition after harvest. Lack of access to facilities such as post-harvest, storage and processing facilities constitutes a barrier to entry into agricultural markets since the emphasis of buyers is more on quality". According to Bienabe, Coronel, Le Coq and Liagre (2004), access to storage facilities increases the flexibility of farmers to sell their products and their negotiating power. This is because storage facilities help to preserve farmers' products and keep such from the infestation of pests and other damaging organisms. This, in turn, is bound to increase their economic power and improve family health. Standard bank (2014) identified the "the provision of infrastructure which includes access to transport and logistics would increase the production and the mobility of women farmers which mean they could sell more of their farm produce in time. Empowering and investing in women, specifically in rural areas, will significantly increase productivity while reducing hunger and malnutrition".

Lack of adequate power supply was also another constraint faced by the female farmers in the study. A significant percentage (32.8) indicated that this restriction was very severe for their entrepreneurial activities and production, 25.6% indicated that this restriction was little, while 22.4% and 19.2% indicated that this restriction was severe and not severe for them. This supports

Obidike (2011) who also identified poor power supply as one of the major limitations facing respondents in her area of study.

About 31.4% of the respondents indicated that the lack of transportation was a little severe constraint on their enterprise. It was followed with a percentage of 30.8 stating very severe, while 25.6% identified that it was just severe and only 12.2% stated that lack of transportation was not severe. According to Baloyi (2010), "access to transport by smallholder farmers plays a significant role in their ability to access markets. The quality of vegetables begins to deteriorate from the moment of harvest and this deterioration continues throughout the marketing process. Since vegetables are highly perishable, there is a sense of urgency in marketing these products as quickly and efficiently as possible in order to maintain their farm-fresh value".

The finding supports Baloyi (2010) that the majority of the farmers interviewed, that is 73%, did not have access to transport logistics in his study area. It has also been found, however, that some farmers find it costly to hire transport, especially after harvesting, and therefore women often carry the products on their heads or in carts and wheelbarrows.

A total of 46.1% of the respondents indicated that the lack of support from financial institutions was very severe for their enterprise, 32.1% severe and 21.8% indicated little severe but none of the respondents indicated that the constraint was not severe. Khapayi and Celliers (2016) opined that the "provision of support services remains one of the major important interventions in the agricultural sector for rural development, commercialization, food security, poverty alleviation and income generation of emerging farmers. The commercialization of emerging farmers cannot be achieved without appropriate farmer support services. With adequate access to farmer support services, emerging agriculture can contribute to increased agricultural growth, rural development and have a positive impact on the farm income". The result from the study disagrees with

Khapayi and Celliers (2016) who said the majority of the sampled farmers at 64% received support services for their farming enterprises.

Many commercial banks in Sub-Saharan Africa (SSA) are very reluctant to finance agriculture. According to Sims, Kienzle, Cuevas and Wall (2007), the banks claim that the risks involved are too high, especially in smallholder agriculture. Where such loans are available, strict conditions have been linked to them, making it difficult for farmers to borrow, as the majority lack the necessary collateral for such loans.

Mpandeli and Maponya (2014) also observed in a study carried out in Limpopo that the majority of the respondents indicated that despite the different financial support programmes carried out through the provincial department of agriculture, farmers still find it hard to get financial support. Chinomona and Maziriri (2015) indicated from a study carried out in Gauteng province that one of the major constraints affecting female entrepreneurship is lack of access to financial support. In addition, O'Neil and Viljoen (2001) pointed out that finance is the most important of these barriers. Finance is considered the "lifeblood" for any business, whether large or small (Singh, 2012). Wasilczuk and Zieba (2008) believed that one of the most important barriers women face when setting up and developing a business is financial barriers. Phillips, Moos and Nieman (2006) pointed out that women entrepreneurs in South Africa have been particularly disadvantaged in the past since they did not own property that can be used as collateral on loans and needs the permission of their husbands to conclude financial arrangements. It is clear that women entrepreneurs suffer from insufficient financial resources and working capital and cannot obtain external financial assistance due to the lack of tangible security and credit in the market (Phillips *et al*. 2014).

Kapungu (2013) defined market access as "having the opportunity, capacity and ability to engage with sellers and buyers". When respondents were asked about the constraint of lack of access to the high-value market, about 35.3% indicated that this is very severe, 33.3% indicated that this constraint was severe, while 25.0% stated that it was a little severe, only 6.4% indicated that this was not severe. The findings support Nsengimana (2017) that women entrepreneurs' support projects in the Nyarugenge district in the city of Kigali showed that women entrepreneurs faced the challenge of a lack of market for their mushrooms. The result further supports Antwi and Seahlodi (2011) who stated that the majority of the respondents with 97% in Gauteng province indicated that they only had access to the low-value market.

With a percentage of 37.8, it was noted that majority of the respondent indicated that the lack of skilled employees on their farming enterprise was not a severe constraint. This means that most respondents had skilled employees they work with, 26.3% stated that the constraint was very severe, while 21.8% indicated severe and only 14.1% indicated that the lack of skilled employees was a little severe. This result supports Liebenberg and Kirsten (2013) who highlighted that the number of skilled farm employees employed in the commercial sector of agriculture has grown from 43% to 55% in the formal sector, the same metric has changed from 40% to 49% an increase of about 8.6% in the informal sector.

A significant percentage (55.8) indicated that the lack of proper management of their farming enterprise was not a severe constraint that affects their production, while 17.2% indicated that it was a severe constraint and 13.5% both indicated that it is either very severe or little severe respectively. Khapayi and Celliers (2016) opined that "educating farmers on management skills need to complement the policies which are geared towards farmers' development. Agribusiness requires some knowledge of how the commodity has been produced, the amount and brand of

fertilizer and the chemicals applied; all these are achievable through good management skills". Hobson (2011) highlighted a lack of management skills as a barrier to entering informal business enterprises.

In addition, 45.4% indicated that the inadequate technological expertise was a severe constraint, 30.8% indicated that this constraint was little severe, while 13.5% stated that the constraint was very severe, and 10.3% indicated that this constraint was not severe on their farming enterprise.

About 41.7% of the respondents indicated that too much competition was a severe constraint in their enterprise, while 30.8% indicated that the constraint was little severe, 17.9% identified that it was very severe and lastly 9.6% opined that too much competition on their enterprise was not severe. This result is supported by Khapayi and Celliers (2016) who indicated a majority (98%) highlighted too much competition as a severe constraint for their enterprise. About 39.8% of the respondents indicated that the lack of proper and adequate information was a severe constraint, 34.6% indicated little severe, 21.8% indicated very severe and only 3.8% indicated that it was not severe on their enterprise. The findings of the study support Mpandeli and Maponya (2014) who also found in a study conducted in the province of Limpopo that farmers in the area of Tshakhuma did not market their products to provincial and national markets since they indicated that there was a lack of adequate and appropriate market information. The findings of the study also agree with that by Siyao (2012) which showed that the lack of access to current, relevant and appropriate agricultural information in rural areas has led to stagnation in the growth of sugar cane produced by small-scale farmers. Darroch and Mushayanyama (2006) also identified the lack of proper and adequate information as a major constraint from their study in KwaZulu-Natal Province, South Africa.

About 45.5% of the respondents indicated that the lack of proper opportunities for small business was severe, 30.1% indicated that this constraint was little severe, while 21.8% indicated that this constraint was very severe and 2% indicated that the lack of proper opportunities for small business was not severe on their farming enterprise. Khapayi and Celliers (2016) opined that the "provision of support services remains one of the major important interventions in the agricultural sector for rural development, commercialization, food security, poverty alleviation and income generation of emerging farmers".

Majority with 45.5% indicated that the lack of support for the survival of small businesses was a severe constraint for their enterprise, 26.9% indicated that the constraint was little severe, while 24.4% of the respondents highlighted that the constraint was very severe and only 3.2% stated that the constraint was not severe to them. The finding supports Khapayi and Celliers (2016) who stated that the "commercialization of emerging farmers cannot be achieved without appropriate farmer support services. With adequate access to farmer support services, emerging agriculture can contribute to increased agricultural growth, rural development and have a positive impact on the farm income". Majority of the respondents in Lekhanya (2016) also agrees that the need for farmer support is very important. Accordingly, Thamaga-Chitja and Morojele (2014) highlighted that the development and support of new smallholder farmers have placed agriculture as an important development area that could have a positive impact on poverty alleviation and food security for households.

Of the total number of respondents in the study, 34% indicated that the lack of training facilities was a severe constraint, 26.9% indicated that the lack of training facilities was very severe and a little severe respectively, only 12.2% indicated that the constraint was not severe. This result supports Khapayi and Celliers (2016) who highlighted the need for training infrastructure for

farmers in the area of King William's Town in the Eastern Cape Province. Mpandeli and Maponya (2014) noted that most respondents needed training and capacity building facilities in a similar study in the districts of Tshakhuma, Rabali and Tshiombo in the province of Limpopo. Mthembu (2008); Machethe (2004); (Matungul) 2015 and Makhura (2001) all identified the need for training facilities as a major constraint on market participation faced by a number of farmers.

The cost of running a business was a constraint that 41.7% of the respondents indicated that is a very severe constraint, about 35.5 % indicated that this constraint was severe, while 20.4% indicated that it was little severe and only 2.6% indicated that this constraint was not severe. Mpandeli and Maponya (2014) agreed that the cost of running a business entails the cost of transportation and other production costs. They further identified that respondents in Limpopo also asserted that it is of great severity for them as the distance they travel to market their goods takes a lot of money. Khapayi and Celliers (2016) also identified high transportation cost as part of the constraints of running a business.

About 32.1% of the respondents stated that the poor educational system was a severe constraint, 25.6% indicated that it was a little severe. A percentage of about 23.1 highlighted that the constraint was not severe, while 19.2% indicated that the constraint was very severe. Khapayi and Celliers (2016), Wynne and Lyne (2003), Wynne and Lyne (2004) and Bienabe and Vermuleen (2011) all identified poor educational system as part of the constraints restricting farmers to be able to market their farm products amongst others, the low level of education that does plague our farmers.

Munzhelele (2015) and Madzimure, Chimonyo, Zander and Dzama (2012) all agreed with the finding of the study that a low level of education was a constraint that affected inbreeding among pig farmers in Mpumalanga Province, South Africa. In addition, Murray, Gebremedhin,

Brychkova and Spillane (2016) also identified from a similar study carried out in Nkhamenya and Kadudula areas of Malawi that a low level of education was also a major constraint amongst other things that affected women in irrigation farming.

The high crime rate in our society does not only affect females in agriculture but also men in agriculture. 49.4% of the respondents indicated that this was a major constraint that is very severe to their enterprise and their production, while 28.8% indicated that this constraint was severe, 11.5% highlighted that it was little severe, and 10.3% indicated that this constraint was not severe. This supports the findings of Maré and Schutte (2012) that indicated in KwaZulu-Natal Province about there are about 7500 cases of stock theft.

Geldenhuys (2012) who pointed out that in Qumbu in the Eastern Cape, stock theft, in particular, is high and very severe, followed by Bityi in the Eastern Cape, Utrecht in KwaZulu-Natal, Amersfoort in Mpumalanga and Harrismith in the Free State corroborate these statistics. Maluleke, Mokwena, and Motsepa (2016) highlighted that "Eastern Cape occupied the first five and seventh spots of the worst ten precincts of stock theft in the 2016 financial year. KwaZulu-Natal KZN-sixth, eight and nine spots respectively and North West (ten) form part of the mix". Clark (2013) also stated that the "impact of crime and theft on agriculture is mainly economic, but the emotional impact on the victims cannot be ignored. Economically, the crime affects the business enterprise of each and every producer, irrespective of whether the producer is a commercial farmer or small-scale farmer and is the largest obstacle in sustainable livestock production and food security".

Farmersweekly (2017) indicated that the caseload of Mpumalanga, North West and Gauteng provinces increased by 22.7%, 22.5% and 20.7%, respectively, when it comes to high crime rates and stock theft in agriculture. They were followed by Limpopo, up 11.4%; Free State, up 6.1%;

KwaZulu-Natal, up 4%; Eastern Cape, up 3.7%; Western Cape, up 2.8%; and Northern Cape, up 1.8%. In addition, Bizcommunity (2018) indicated that the scenario for cattle is different, with KwaZulu-Natal showing the highest number of theft of stocks, more than 14,000, followed by the Free State, more than 10,000 and nearly 10,000 in the North West. With this finding, crime and stock theft in agriculture are a problem of development in rural Africa with a serious threat to living, rural livelihoods, food security, employment and rural development in general (Bunei & Barasa 2017; Bunei 2016; Bunei 2014; Bunei 2014; Bunei, Rono & Chessa 2013; Dzimba & Matoone 2005).

The respondents with 40.4% indicated that the lack of reliable employees was not a severe constraint for their production, while 23.1% indicated that this was a little constraint, and 20.5% stated that this constraint was very severe, and 16% indicated that this was a severe constraint for them. Furthermore, 39.7% of the respondents indicated that the problem with suppliers is a little severe constraint for them and their production, while 32.1% stated that the constraint was severe, 16% indicated that the problem they have with the suppliers is severe, and lastly 12.2% indicated that the problem with supplier was not a severe constraint in their farming enterprise.

A majority with 56.3% of the respondents stated that they always had the support of their families, so the lack of family support was not a severe constraint affecting production on their enterprise. Slightly about 21.2% highlighted that the lack of support from their families was a little severe constraint, while 15.4% indicated that this constraint was severe and lastly 7.1% indicated that the lack of support from their family member was a very severe constraint. This finding supports FAO (2014), who stated that family farming and support is an effective model that can provide solutions to overcome food insecurity and malnutrition. In addition, family

farming has been recognized as a way of life that contributes to the transmission of knowledge, environmental preservation, natural resources and cultural heritage between generations.

When respondents were asked about the constraint of limited skills in preparing a good proposal for a bank loan, quite a percentage with 48.1 indicated that this constraint was very severe, 30.8% highlighted that this constraint was severe, while 16% stated that this constraint was a little severe and 5.1% showed that this constraint was not severe. This finding agrees with Stevenson and St-Onge (2011) and Siddiqui (2012) who identified that inadequate access to finance sources and training of proposal development, makes women entrepreneurs start businesses using their personal savings, or by borrowing from friends or family. Lack of collateral and lenders' negative perception of women as high-risk borrowers influences them to refuse loans to women.

A significant number of respondents said that their lack of self-confidence was not a serious constraint, while 20.5% pointed that their lack of self-confidence was a little severe. Just 16.7% stated that the lack of self-confidence was a severe constraint, and 15.4% stipulated that the lack of self-confidence was a very severe constraint. According to Hogan (2015), the lack of self-confidence is the main reason most farmers are not willing to take up new or improved innovations for the betterment of production from their farms. Bones, Henry, Hunt, and Sefton (2003) opined that the lack of self-confidence has made so many farmers not to be able to achieve that higher business performance.

They also noted that some of the characteristics of being successful in farming and entrepreneurship are a strong and supportive family, the ability to plan and implement change, self-confidence, seeking knowledge, and enjoying the challenges of farming. Mwangi (1998) indicated that it is easier for farmers to believe the teachings of a person with the right technical ability and with a lot of self-confidence in order to build their own self-confidence. The finding

of this study does not agree with Modiba (2009) who identified 92.6 % of the respondent in a similar study in Limpopo Province to have indicated that the lack of self-confidence was the highest constraint they perceive to hinder their entrepreneurial activities. The result further disagrees with the findings of Enete and Amusa (2010) that also found the lack of self-confidence as a major constraint amongst farming women households in Ekiti-State, Nigeria.

A significant percentage of the respondents (51.9) indicated that the tax policies in agriculture are a very severe constraint that hinders their entrepreneurial activities; 21.8% indicated that tax policies are severe to their enterprise, while 14.1% and 12.2% highlighted that tax policy is little severe or not severe respectively on their farming activities. Barron and Dickinson (1975) also agree that tax policies are a major constraint that affects farmers that are willing to stay in agriculture. The findings of the study support Deo, Kalisa, and Theogene (2016) who identified that the majority of respondents in their study area confirmed that tax policies are among the challenges faced by female entrepreneurs in Rwanda.

The study found out that 34% of the respondents indicated that the lack of a business role model was a little severe. A total of 26.2% indicated that the lack of business role models was very severe, while 24.4% highlighted that the lack of a business role model was a severe constraint. Lastly, 15.4% stated that the lack of a business role model was not a severe constraint in their farming practice. Mokgokong (2016) highlighted that women need more role models especially in the society that we live in, particularly successful business-women who are advisors and consistent with growth. According to Lebakeng (2008), research on role models and family background of entrepreneurs suggests a strong connection between the presence of role models and the emergence of entrepreneurs.

Women entrepreneurs have fewer role models available than men, according to Mattis (2004). Successful women entrepreneurs need to become more visible to other women as role models. Similarly, many entrepreneurs do not have familiar alternative role models that support the company's more ambitious growth goals and the reorganization of their personal situation.

The study further showed that 47.4% of the respondents indicated that the lack of collateral to apply for loans was a very severe constraint. A total 24.4% indicated that the lack of collateral to apply for a loan was a severe constraint, while 18.6% stated that the lack of collateral to apply for a loan was a little severe in their entrepreneurial activities. Only 9.6% stated that the constraint was not severe to affect their entrepreneurial activity. This finding is supported by Ayanone (2011) as well as Laetitia, Shukla, and Luvanda (2015) who all highlighted that the absence of the guarantees required to obtain a loan frustrates women entrepreneurs and those that are ambitious of becoming an entrepreneur.

Qwabe (2014); Nathan, Margaret, and Ashie (2004); Spio (2002) all argued that formal financial institutions failed to meet emerging and small-scale farmers due to a lack of collateral and high transaction costs. Amadhila (2016) and Olaitan (2006) considered that factors such as the inherent risks associated with agricultural production, the high cost of managing agricultural loans, the inability of farmers to provide the necessary collateral and the fact that most banks operate in urban areas far from rural farmers lead to a further decline in agricultural production. Nandudu (2016) said a financial house in Uganda, that is, banks said that lending to smallholder farmers is still risky because most of them lack collateral.

The fear of failure was another constraint that 36% of the respondents indicated was a very severe hindrance in their entrepreneurial practice. It was further noted that 30.1% indicated that

this constraint was a little severe, while 19.2% indicated that this constraint was not severe and 14.7% stated that the fear of failure was severe in their entrepreneurial practices. There is no doubt that for many aspirant women entrepreneurs, fear of failure holds them back from actually starting a business or scaling their business to new heights. In the world of entrepreneurship, it is important to start out by looking at all the positive reasons to start a business, rather than over-thinking the risk of failure from the get-go. The success or failure in business does not have anything to do with gender. It is about research and planning; hard work and determination; and the will to succeed.

One of the most common fears among entrepreneurs is called the fear of failure (Bosma, 2013). The finding supports Shinnar, Giacomin, and Janssen (2012) who stated that perception of the fear of failure is very severe and it decreases the intention to become an entrepreneur. The fear of failure is an essential part of the entrepreneurial journey. Many scholars like Cardon, Wincent, Sing, and Drnvosek (2009); Hermans, Apeldoorn, van-Stuiver, and Kok (2013); Stam, Bosma, van-Witteloostuijn, de-Jong, Bogaert, Edwards, and Jaspers (2012); Hmieleski and Carr (2008) all described entrepreneurs as often passionate, enthusiastic, ambitious, and resilient. Fear of failure is seen as a simple barrier to entrepreneurial action in entrepreneurship literature (Martin & Marsh 2003). It can be the barrier to the entrepreneurial aspiration of individuals or the source of the determination of entrepreneurs to win. However, the experience of fear of failure is more than anything else a complex, understood and highly nuanced problem.

The result also shows that 77.6% of the respondents indicating that the lack of internet services was a very severe constraint; while 8.3% stated that the constraint was a little severe, and 7.7% said the lack of internet services was severe and only 6.4% showed that the lack of internet service was not severe on their entrepreneurial activities. Church (2018) opined that access to the

internet by women is the key they need to unlock both finance and to the world markets. Liu (2017) as well as Park and Mishra (2003) all highlighted that the Internet can be used to address negative perceptions of rural life that leads to lack of production, enable farmers to consider new ways, and seek opportunities to acquire new agricultural information.

Furthermore, Liu (2017), as well as Park and Mishra (2003), opined that when used as a technology, the Internet is widely believed to be able to enhance farmers' capabilities and assist them to obtain and process information and knowledge regardless of the location of the farm. Bachtiar (2003) agrees with the findings of the study that the lack of internet services is a very severe constraint because they revealed that the Agricultural Knowledge and Information System is failing to reach the farmers effectively.

Tire (2006) opined that the important role, which the internet plays in society, could not be overemphasized. However, the continent of Africa still has some challenges to overcome in order to enjoy the benefits of the internet in Agriculture. The findings also agree with Prytherch (1997) who also found internet access and online use as costly. Mdalose (2016) also noted that information and communication technology (ICT) is well served in South Africa's urban areas, while the same could not be said of the majority of farmers in rural areas. Poor telecommunications infrastructure in rural areas limits farmers to benefit from such communications benefits.

Braimok (2017) further stated that information is a critical factor that has always been important, but many groups in low-income countries are often excluded from the use of ICTs, especially women, due to the prevailing inequalities in access to ICT (Wamala 2012). Furthermore, Braimok (2017) found that similarly amongst women dairy farmers in Nairobi. Most of them found the internet expensive and most of the elderly women in the study stated that in their own

opinion, they had a common perception that the internet was intended for women farmers of the younger generation.

It can also be noted from the study that the lack of support from family despite ranking 1st with a mean score of 0.73 was the least constraint hindering the entrepreneurial activities of respondents in the study area, followed by the lack of proper management with a mean score of 0.88 as the 2nd. The lack of self-confidence was ranked 3rd with a mean score of 1.00, the lack of reliable employees with a mean score of 1.17 was ranked 4th. The lack of skilled employee was ranked 5th with a mean score of 1.37. The poor educational system was ranked 6th with a mean score of 1.47. Problems with the supplier were ranked 7th with a mean score of 1.52. Inadequate technological know-how and lack of business role models were ranked 8th with a mean score of 1.62 respectively. Too much competition was ranked 9th with a mean score of 1.68. Lastly, lack of power supply was ranked 10th with a mean score of 1.69.

Furthermore, the lack of transportation was ranked 11th with a mean score of 1.75, the lack of training facilities with a mean score of 1.76 was ranked 1.76, the lack of proper and adequate information with a mean score of 1.79 was ranked 13th, the lack of adequate infrastructure was ranked 14th with a mean score of 1.82. It was further noted that the lack of proper opportunities for smaller businesses with 1.87 was ranked 15th. The lack of support for the survival for small business was ranked 16th and with a mean score of 1.91. The lack of access to high-value market was ranked 17th and with a mean score of 1.97. The lack of support from financial institutions was ranked 18th and with a mean score of 2.00.

It was also noted that the lack of collateral to apply for loans was ranked 19th with a mean score of 2.10. With a mean score of 2.13, tax policies were ranked 20th. The cost of running a business with a mean score of 2.16 was ranked 21st. The high crime rate was ranked 22nd with a mean

score of 2.17. Limited skills in preparing a good proposal for a bank loan was ranked 23rd with a mean score of 2.22. Lastly, the lack of access to internet services was ranked 24th and with a mean score of 2.56.

In summary from the ranking of the constraints, the dominant constraints were not the lack of support from family or the lack of proper management, but it was seen that respondents had the lack of internet and the limited skills in preparing a good proposal for a bank loan as the major hindrances affecting their entrepreneurial entity.

CHAPTER FIVE

Inferential statistics and test of Hypothesis

5.1 Level of the Degree of Commercialization among the Respondents

5.1.1 Commercialization indices

Most studies have modelled agricultural commercialization as a two-step analytical approach involving the unobservable decision to commercialize and the observed degree or extent of commercialization (Vance & Geoghegan, 2004). The study followed Dube and Guveya (2016) who measured the level of commercialization in terms of the proportion of output sold in markets. This study used the Household Commercialization Index (HCI) as a proxy to assess the level of commercialization of the beneficiaries of the Award Incentive and Competition programme in North West Province, South Africa. Refer to Appendix F for the raw commercialisation index score.

Table 5.1 shows the distribution of respondents according to their entrepreneurial development using their HCI, with majority 53.9% indicating high entrepreneurship development, 39% indicating low entrepreneurship development and 7.1% indicating no entrepreneurship development.

Table 5.1 Entrepreneurial development of respondents using sales output generated from their Household Commercialization Index (HCI)

(Entrepreneurial development generated from their HCI)	**Frequency (%)**	**Distribution of entrepreneurship development**
0.00	11(7.1)	No
0.04-1.50	60(39.0)	Low
1.51-17.00	85(53.9)	High
Total	**156(100)**	

5.2 Respondent's entrepreneurial activity

Table 5.2 displays the result of all the entrepreneurial activities in the study area, livestock production was the highest activity in the study area with 75.6%, followed by vegetable production with 26.9%, followed by poultry production with 19.2%, followed by food crop production with 2.6%, followed by fish farming with 0.6%, and no respondent indicated to be involved in animal products in the study. This is supported by Ungersbock (2016) that highlighted that livestock makes up the biggest part of South Africa's agriculture. According to Govereh *et al.,* (1999), Strasberg *et al*., (1999) and Agwu *et al*. (2012), in measuring Household specific level of Commercialization Index (HCI), it is a ratio of the Agricultural output, that is, the value of all agricultural sales per year to the gross value of all agricultural production value.

Table 5.2 Respondents commercialization of entrepreneurial activity in the study area

Entrepreneurial activity	Percentage
Livestock production	75.6
Fish farming	0.6
Vegetable production	26.9
Poultry production	19.2
Food crop production	2.6
Animal products	0

5.2.1 Commercialization indices for livestock production

Table 5.3 shows the commercialization indices for livestock production. The most notable services by respondents are the gross value of farm produce ($\bar{x}$= R160854.49/SD= 172030.730), the value of livestock sales ($\bar{x}$=R54470.08/SD=68433.351), and the livestock product value ($\bar{x}$ =R14475.60/SD=36020.619). This means that as a result of high livestock production in the study area, there is high demand and market to also cater to this farm produce. This might also be peculiar with the province, as it is known as the "Texas of South Africa" because it produces the largest beef with Hereford cattle being the most popular. The least notable services are transportation cost to the markets per month ($\bar{x}$=R396.04/SD= 456.995), veterinary costs per month ($\bar{x}$=R1034.84/SD=3144.268) and feed cost per month ($\bar{x}$= R1579.68/SD=3115.846). These are less prominent because most farmers did not incur costs for veterinary costs due to low-income levels, very few farmers who could afford it did transportation of animals to markets but most of the farmers were doing most of their sales at farm level.

Table 5.3 Commercialization indices for livestock production

Values for services	Mean	Standard deviation
Values of farm produce	160854.49	172030.730
Value of livestock sales	54470.08	68433.351
Livestock product value	14475.60	36020.619
Feed cost per month	1579.68	3115.846
Veterinary cost per month	1034.84	3144.268
Labour cost per month	2474.68	2507.553
Transportation cost to market per month	396.04	456.995
Value of goods and services acquired through a market transaction	4556.09	9570.823
Value of goods and services acquired through a cash transaction	6635.38	32927.613
Commercialization input	0.2381	0.50859
Commercialization output	2.0650	2.15852

5.2.2 Commercialization indices for fish farming

The result in Table 5.4 shows the commercialization indices for fish farming among the respondents. The most notable services are the gross value of farm produce ($\bar{x}$= R6410.26/SD= 80064.077), value of fish sales ($\bar{x}$=R3205.13/SD=40032.038), and the labour cost per month ($\bar{x}$ =R64.10/SD=800.641). This means that as a result of the high demand in aquaculture, more was produced. Fish farming is a very productive, lucrative entrepreneurial activity, fish is a very high source of protein and has less fat compared to red meat. Furthermore, it was noted that on average, each farmworker gets R64.10. The least notable services by respondents were fishing product value ($\bar{x}$=R0.00/SD=0.000), veterinary costs per month ($\bar{x}$=R0.00/SD=0.000). These are less prominent because most farmers did not incur costs for the fishing product because there are no other products from fish and also no

veterinary costs the fact that fish do not need vaccination, instead fish need their feed with the nutrients.

Table 5.4 Commercialization indices for fish farming

Values for services	Mean	Standard deviation
Values of farm produce	6410.26	80064.077
Value of fish sales	3205.13	40032.038
Fishing product value	0.00	0.000
Feed cost per month	2.56	32.026
Veterinary cost per month	0.00	0.000
Labour cost per month	64.10	800.641
Transportation costs to market per month	19.23	240.192
Value of goods and services acquired through a market transaction	32.05	400.320
Value of goods and services acquired through a cash transaction	12.82	160.128
Commercialization input	0.2381	0.50859
Commercialization output	2.0650	2.15852

5.2.3 Commercialization indices for vegetable production

The result in Table 5.5 shows the commercialization indices for vegetable production. The most notable services are the gross value of farm produce ($\bar{x}$= R20266/SD= 66058.443), value of vegetable sales ($\bar{x}$=R4048.08/SD=12157.273), and the value of goods and services acquired through a market transaction ($\bar{x}$ =R852.56/SD=1930.417). This means that respondents had very high sales from their vegetable farm sales. Vegetables are a very important part of food that is to be consumed because of the high source of vitamins that they are. Also, there must have been a high cost in production inputs, hence the value of goods and services acquired through the market transaction. The least notable services by respondents were veterinary costs per month

($\bar{x}$=R0.00/SD=0.000), and feed cost per month ($\bar{x}$=R19.23/SD=240.192). These are less prominent because most farmers did not incur costs for veterinary visits and feeding because vegetables do not require veterinary visits nor feeding.

Table 5.5 Commercialization indices for vegetable production

Values for services	Mean	Standard deviation
Value of farm produce	20266.67	66058.443
Value of vegetable sales	4048.08	12157.273
Vegetable product value	72.76	802.885
Feed cost per month	19.23	240.192
Veterinary cost per month	0.00	0.000
Labour cost per month	478.21	1355.005
Transportation costs to market per month	143.59	613.733
Value of goods and services acquired through a market transaction	852.56	1930.417
Value of goods and services acquired through a cash transaction	799.36	2300.897
Commercialization input	0.2381	0.50859
Commercialization output	2.0650	2.15852

5.2.4 Commercialization indices for poultry production

Table 5.6 shows the commercialization indices for poultry production. The most notable services by respondents are the value of farm produce ($\bar{x}$= R63891.03/SD= 397413.274), the value of poultry sales ($\bar{x}$=R61404.298/SD=497324.649), and the feeding cost per month ($\bar{x}$ =R17276.28/SD=200248.737). This means that respondents had to put in a lot of production inputs to have made such sales, especially the feeding of the poultry birds. The least notable services are veterinary costs per month ($\bar{x}$=R20.51/SD=138.526), transportation cost to the markets per month ($\bar{x}$=R139.19/SD=773.501). These are less prominent because most farmers

did not incur costs for veterinary costs due to the fact they did not record much disease outbreak. Very few farmers who could afford it did transportation of poultry birds to markets but most of the farmers were doing most of their sales at the farm level.

Table 5.6 Commercialization indices for poultry production

Value for services	Mean	Standard deviation
Value of farm produce	63891.03	397413.274
Value of poultry sales	61404.29	497324.649
Poultry product value	8466.41	96126.244
Feed cost per month	17276.28	200248.737
Veterinary cost per month	20.51	138.526
Labour cost per month	669.87	4744.265
Transportation costs to market per month	139. 19	773.501
Value of goods and services acquired through a market transaction	2131.41	20041.740
Value of goods and services acquired through a cash transaction	2003.21	15349.004
Commercialization input	0.2381	0.50859
Commercialization output	2.0650	2.15852

5.2.5 Commercialization indices for food crop production

Table 5.7 shows the commercialization indices for food crop production. The most notable services by respondents are the value of farm produce ($\bar{x}$= R801.28/SD=5970.270), the value of food crop sales ($\bar{x}$=R653.85/SD=4412.086). This means that respondents had to put in a lot of production inputs to have made such sales, hence the value of the food crop production. The least notable services during the food crop production include the food crop product value, the feed cost per month, the veterinary cost per month, the labour cost per month and the last but not the least was the transportation costs to market per month all with ($\bar{x}$=R0.00/SD=0.000) respectively.

These means that respondents saved a lot of money by not having to spend on the services that were not needed for food crop production. Transportation of food crops to the markets was done by very few farmers who could afford it, but most of the farmers were doing most of their sales at the farm level.

Table 5.7 Commercialization indices for food crop production

Value of services	Mean	Standard deviation
Value of farm produce	801.28	5970.270
Value of food crop sales	653.85	4412.086
Food crop product value	0.00	0.000
Feed cost per month	0.00	0.000
Veterinary cost per month	0.00	0.000
Labour cost per month	0.00	0.000
Transportation costs to market per month	0.00	0.000
Value of goods and services acquired through a market transaction	67.31	485.554
Value of goods and services acquired through a cash transaction	92.95	699.780
Commercialization input	0.2381	0.50859
Commercialization output	2.0650	2.15852

5.3 Categorising of respondents according to the participation, benefits and constraints in AIC

Respondents were presented with a list of 17 statements of activities of participating in the AIC development programme. They were asked to indicate using a 3-point Likert type scale of regularly, occasionally, and rarely to indicate their level of participation. Respondents were further presented with a list of 12 indicators that would show their level of benefits and from a 4-point Likert type scale, indicate whether the programme was very beneficial, beneficial, little beneficial or not

beneficial. Respondents were also provided with 26 constraints in a 4-point Likert type scale which they were to indicate if they were very severe, severe, little severe and not severe. A pulled score for each respondent for participation, benefits and constraints was used in categorising respondents into low and high entrepreneurship development. (Refer to Appendix F for the frequency distribution of the participationtotalscore, benefittotalscore and constraintstotalscore). Majority of the respondents with 60.3% was recorded to have a low participation level in AIC programme, which affects their entrepreneurship development. The mean score for their participation level was 17.14. The majority of the respondents with 51.9% were recorded to have low benefits from the AIC programme, which also affects their entrepreneurship development. The mean score for the level of their benefits in AIC programme was 19.69. It was recorded that the majority of the respondents with 53.2% had a low constraint level. This implies that their low constraint level contributes to their entrepreneurship development with a mean score of 44.87. The frequency distribution of their categories in participation, benefits and constraints in AIC is displayed in Table 5.8.

Table 5.8 Categorisation of respondents into their Entrepreneurship development level in AIC

Category	**Frequency (%)**		
	Participation	**Benefits**	**Constraint**
Low	94(60.3)	81(51.9)	83(53.2)
High	62(39.7)	75(48.1)	73(46.8)
Mean score	17.14	19.69	44.87
Standard Deviation	5.83587	9.91487	13.28513

5.4 Comparison of entrepreneurship development between levels of participation, benefits and constraints in AIC by female farmers

The pooled scores obtained from the commercialization of output based on the volume of market participation by female farmers under AIC programme was used as a proxy for entrepreneurship development. According to Dube and Guveya (2016) as well as Vance and Geoghegan (2004),

output-based commercialization index represents entrepreneurship development. A majority of studies measure the level of smallholder commercialization in terms of the proportion of output sold in markets (von Braun *et al*. 1994). This study used the Household Commercialization Index (HCI) to assess the level or extent of commercialization of the smallholder farmers in the province among female farmers. The comparison of the respondents' entrepreneurship development and indicators of AIC, namely, benefits, participation and constraints. From the pool scores of benefits, participation and constraints obtained from sampled female farmers, the mean score was used as a cut-off point to categorise into high and low levels of benefits, participation and constraints.

The result shows that the comparison of levels of participation by female farmers on their entrepreneurial development indicates that fewer female farmers had high participation with a higher mean score of 2.39 than those in the low participation category. The t score signifies no significant difference between entrepreneurship development of female farmers that belong to low and high levels of participation in AIC.

The comparison of levels of benefits by female farmers on their entrepreneurial development shows that fewer female farmers had high benefits with a higher mean score of 2.42 than those in the low benefit category. The t score shows significant difference between entrepreneurship development of female farmers that belong to low and high levels of benefits in AIC.

The comparison of levels of constraints by female farmers on their entrepreneurial development shows that fewer female farmers had high constraints level with a higher mean score of 2.39 than those in the low constraint category. The t score shows significant difference between entrepreneurship development of female farmers that belong to low and high levels of constraints in AIC. The result is displayed in Table 5.9.

Table 5.9 Comparison of commercialisation index between low and high categories of respondents

	Category	N	Mean	Std. D.	Std. Er Mean	t	Df	P
Participation level	Low	94	1.84	2.23	.23019	-1.609	139.700	0.110
	High	62	2.39	2.01	.25582			
Benefit level	Low	81	1.72	1.73	.19320	-2.013	130.960	0.046
	High	75	2.42	2.49	.28830			
Constraints level	Low	83	1.77	1.75	.19226	-1.783	126.353	0.077
	High	73	2.39	2.51	.29433			

The overall interpretation is that the level of participation does not influence entrepreneurship development, but the benefits derived from AIC and the reduction of constraints due to involvement in AIC ultimately determine entrepreneurship development among female farmers under AIC.

5.5 One-way ANOVA and Post-Hoc tests showing differences of levels of entrepreneurship development based on the level of participation, benefits and constraints on AIC

To further show the differences in the levels of entrepreneurship development based on the level of participation, benefits and constraints on AIC, a one–way analysis of variance and Duncan posthoc tests were applied. In Table 5.10, the ANOVA results show differences amongst the three different categories of entrepreneurship development i.e. No entrepreneurship development, Low entrepreneurship development, and High entrepreneurship development. The level of participation in AIC F value for the linkage=3.312, using a significance level of 5% ($\alpha = 0.039$), with High entrepreneurship development having the highest mean of 18.2771, and No entrepreneurship development with the lowest mean of 14.8182.

The benefit from AIC F value for the linkage = 8.638, using a significance level of 1% (α = 0.000), with High entrepreneurship development having the highest mean of 21.1325, and No entrepreneurship development with the lowest mean of 8.4545 for the benefits.

The constraint in AIC F value for the linkage = 5.120, using a significance level of 1% (α = 0.007), with High entrepreneurship development having the highest mean of 45.5663 and No entrepreneurship development with the lowest mean of 32.7273.

Table 5.10 One-way ANOVA & Post-hoc test showing differences of levels of entrepreneurship development bases on level of participation, benefits and constraints on AIC programme

Entrepreneurship score	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Category**	**N**	**Means**
Between groups	218.631	2	109.315	3.312	.039	No	11	14.8182[a]
Within groups	4983.863	151	33.006			Low	60	16.2000[a]
						High	83	18.2771[b]
Total (Participation)	5202.494							
Between groups	1562.626	2	781.313	8.638	.000	No	11	8.4545[a]
Within groups	13657.919	151	90.450			Low	60	19.8500[b]
						High	83	21.1325[b]
Total (Benefits)	15220.545							
Between groups	1724.526	2	862.263	5.120	.007	No	11	32.7273[a]
Within groups	25429.967	151	168.410			Low	60	45.9000[b]
						High	83	45.5663[b]
Total (Constraints)	27154.494							

5.5.1 Relationship between selected socioeconomic characteristics, participation, benefits, and constraints on entrepreneurship development of women farmers using Probit Regression analysis

Entrepreneurship development was conceptualized in this study as commercialization index that was used as the dependent variable being investigated in the study with respect to the AIC. The independent variables consisted of selected socio-economic characteristics from a

covariance and correlations of parameter estimates test and Pearson Goodness-of-Fit Test (refer to Appendix F for the table) together with a pooled score generated from the totalparticipationscore, totalbenefitscore and the totalconstraintscore (refer to Appendix F for table) for the probit regression analysis. The result of the regression is displayed in Table 5.11.

The result found that age was a significant variable to the entrepreneurship development of the respondents in the study at 1% level of significance that is ($P \leq 0.01$ at 0.006). This implies that age is one of the main variables which is significant in the study area affecting the degree of commercialisation of respondents participating in the AIC programme. A decrease in age of the beneficiaries would lead to a decrease in the entrepreneurship development of the beneficiaries. This result supports the finding of Olowa and Olowa (2015) who in a similar study found age as one of the important variables that affect entrepreneurship development in agribusiness enterprises.

The farming experience measured in years among the respondents was another positive significant variable. The level of significance at 5% that is ($P \leq 0.05$ at 0.038), implies that as the farming experience of the respondent's increases, their entrepreneurship development also increases. The years of farming experience of the respondents have a bearing on their entrepreneurial development because all these years of on-job education could be a substitute for classroom education. This result corroborates Olowa and Olowa (2015) as well as Esiobu, Onubuogu and Ibe (2015) who all identified the importance of farming experience, otherwise called on-job education as a positive factor that affects the development of entrepreneurship.

A pooled score was generated for the list of constraints provided to the respondents. The total pooled score was then used as a proxy that was included in the regression. The result shows that the

coefficient of the constraint was significant to the entrepreneurship development of the beneficiaries at 5% that is (P≤0.05 at 0.024). If a sustained level of the constraints affecting the various enterprises of the respondents is maintained, there is going to be a positive effect on the entrepreneurship development of the respondents. The result supports the findings of Von Loeper, Musango, Brent, and Drimie, (2016) that the lack of access to high-value market results in smallholder farmers with surplus production. They thus remain trapped in poverty and discourage them from developing entrepreneurially. According to Rasool and Botha (2011), the skills shortage is widespread and affects South Africa. It influences the economic productivity dimension and reduces the ability of the nation to build a knowledge-based society. In addition, the loss of highly talented workers by resettlement would exhaust the country's source of human capital and thus reduce the nation's ability to achieve as much innovative and technological progress (Glass & Choy, 2001). Mateus, Allen-Ile, and Iwu (2014) stated: skills shortage in South Africa comes from many origins, including a lack of investment in skills development; education; and rapid structural change, which is combined with low levels of overall unemployment; and weakness in the training system.

It is known that educational institutions play an important role in the development of entrepreneurship. Dirks (2013) identified that the world economic forum ranks South Africa's education system 133rd out of 142 countries in the world, although higher education in a society is the key to development and poverty alleviation. Radcliffe (2016) also believed that the failure of the education system in South Africa had a profound impact on the current role of the country in the African economy. Mydreamcourse (2013) stated that the root of South Africa’s problems and lack of a skilled labour force stems from the poor education system and with those given the responsibility to administer the nation's education system.

Moos (2014) opined that the "government's National Development Plan identifies several ways to support SMMEs and new firm creation, including public and private procurement to stimulate demand, easing access to finance, regulatory simplification in areas such as business registration, tax and labour regulation as well as reforms to the skills training landscape. It is hoped that the National Development Plan can help to increase the low levels of growth in the entrepreneurial and SMME sector" (eThekwini Municipality, 2013). An efficient tax system is a necessary feature of modern state development and entrepreneurship, according to McGregor (2017).

Ayankoya (2016) opined that one of the significant answers for driving entrepreneurship in South Africa lies in the accessibility of role models. Accordingly, it means that the probability and tendencies of people with family and friends who are entrepreneurs to become entrepreneurs themselves is high because of the example they see and learn from.

The coefficient of farm size, farmland, extension visit, extension sources, household size, income level, educational status, the benefits and participation were all found to be positive variables that affected or contributed to entrepreneurship development in the study area, but not significantly.

Table 5.11 Relationship between selected socioeconomic characteristics, level of participation, benefits, constraints in AIC on entrepreneurship development of respondents using Probit Regression

Number of obs=156, LR chi^2(12)=59.33, Prob>chi^2=0.0000, Log likelihood=-10.110625, Pseudo R^2 = 0.7458.

Entrepscore	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Age	-.1505766	.0551869	-2.73	0.006	-.2587409	-.0424124
Farmexpyears	.2022465	.0974038	2.08	0.038	.0113385	.3931545
Farmsize	.2631458	.4015655	0.66	0.512	-.5239082	1.0502
Farmland	-.7196556	.6658945	-1.08	0.280	-2.024785	.5854736
Extnsvisit	-.0377608	1.643007	-0.02	0.982	-3.257996	3.182474
Extnsource	-.0363731	.5056606	-0.07	0.943	-1.02745	.9547035
Householdsize	.2438664	.2002254	1.22	0.223	-.1485682	.636301
Incomelevl	1.15e-06	1.55e-06	0.74	0.456	-1.88e-06	4.18e-06
Edustatus	-.4661981	.6071064	-0.77	0.443	-1.656105	.7237086
Totalparticipationscore	.0999818	.0733974	1.36	0.173	-.0438745	.2438381
Benefittotalscore	.1364236	.1045684	1.30	0.192	-.0685267	.3413739
Totalconstraintscore	.2042831	.0906214	2.25	0.024	.0266683	.3818979
_cons	-2.891417	4.865821	-0.59	0.552	-12.42825	6.645417

5.6 Chapter Summary

Despite South Africa's entrepreneurship difficulties, it remains an important answer to the nation's socio-economic problems. South Africa would provide more jobs and improve the livelihood of families with increased total entrepreneurship and the development of business activities. This will remove many people from the street, reduce crime and address many of the social problems that will go a long way to strengthen the nation's global competitiveness. The chapter presented the inferential statistics of the significant relationship between selected socioeconomic characteristics, level of participation, benefits, and constraints in AIC on entrepreneurship development of women farmers. The result showed a various level of significance on the entrepreneurship development of the participants, thus rejecting the null hypothesis. Entrepreneurship development was conceptualized in this study as commercialization index. The commercialization index was determined by sales output for

the different enterprises for each of the respondents. A pooled commercialization index score was generated for each of the respondents.

The probit regression showed that there is a significant relationship between the age, farming years experience and the severity of the constraints in the AIC programme at different levels of significance. Variables such as farm size, farmland, educational status, extension visits, extension source, household size, income level, were not significant variables to the entrepreneurship development of the respondents in the study area but were positive variables that contributed to the entrepreneurship development of the participants. The chapter also presented results from the One-way ANOVA test showing difference of levels of entrepreneurship development in AIC programme among respondents. Refer to Appendix F for the result of the ordered probit regression of the test of the hypothesis.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.0 Chapter Introduction

Entrepreneurs can change our way of living and working. Their revolutions can improve our standard of living in the event of effective entrepreneurial success. They also create jobs and the conditions for a prosperous society, despite creating wealth from their entrepreneurial undertakings. The World Bank proposes that (formal) small and medium-sized enterprises contribute up to 45% of total employment and 33% of national wages in emerging economies in South Africa. Only 7% of the adult population of South Africa is associated with their own business. This is low, despite the fact that the rate of entrepreneurship is almost four times higher. With the rapidly growing unemployment rate in South Africa approaching 40%, creating a supportive business environment could easily accelerate economic growth and address the unemployment crisis. The South African economy urgently needs more entrepreneurs to support development, promote innovation and help create jobs. In fact, much more should be done to make a business empowerment domain really thrive.

The study specifically identified the socio-economic characteristics of women farmers. It described the agricultural entrepreneurial activities in which women farmers were involved. It established their level of participation in the AIC programme. It determined the benefits of the AIC programme, and established the limitations that prevented women farmers from benefiting from AIC programme, and determined the degree of commercialization of the female farmers in the study area.

The study was conducted in the North West Province, which is the fourth-smallest province in the Republic with four districts, i.e. Ngaka Modiri Molema, Bojanala Platinum, Dr Kenneth Kaunda and Dr Ruth Segomotsi Mompati and with Mahikeng as the capital city. In the selection of 226 respondents, a simple random sampling method was used and a structured questionnaire was used to obtain information. In analyzing the data, descriptive and inferential statistics were used. Models for inferential statistics were the Household Commercialization Index (HCI), Probit Regression and one-way ANOVA test.

6.1 Summary of major findings

This study focused on the effect of Award Incentives and Competition on Female Entrepreneurship Development in the North West Province of South Africa. The findings of the study showed that the age of the respondents ranged between 21-80 years with a mean age of 46 years, the majority of the respondents with 54.5% were married; the majority of the respondents with 45.5 % had matric as their basic form of education.

The study found out that age was negatively significant to entrepreneurship development, years of farming experience was positively significant to the entrepreneurship development, and constraints were positively significant to the entrepreneurship development of the participants. Variables such as farm size, household size, participation in AIC and benefits of the participants were all positive variables but were not significant to affect entrepreneurship development.

The study found that the majority with 60.3% had a low participation level in AIC, as well as with 51.9% stating that the benefits they have from being beneficiaries of the AIC programme are not enough. A total of 53.2% indicated that the level of constraint on their enterprises has is low. All these have different effects on the entrepreneurship development of the respondents.

The One-way ANOVA showed the difference in levels of the entrepreneurship development of respondents in the study area who are beneficiaries in the AIC programme.

6.2 Conclusion

The research findings showed both positive and negative contributions. Despite the good intention with the creation and introduction of awards incentives and competition to encourage subsistence farmers to become more commercialized, the benefits and participation level of the beneficiaries in the North West Province is still low. It was evident from the study that the majority of the respondents in the programme were into livestock farming production and closely followed by the vegetable production farmers. A handful of constraints were identified as major contributory factors directly and indirectly to the low level of participation and low level of benefits recorded in the AIC programme as shown from the comparison of the commercialisation index of the respondents that was used as a proxy for entrepreneurship development in the study.

The One-way ANOVA test showed the differences of levels of entrepreneurship development based on the level of participation, benefits and constraints in AIC. The result showed differences in the benefits and constraints level. From the total income distribution of respondents, the result shows that respondents generated below ZAR 500,000 ($33,597.07) per annum.

6.3 Policy Recommendations

The results and analysis of the data collected in the study provide insight to the government and, policymakers on the developmental strategy to leverage and embark upon in setting policies and guidelines that will enhance participation and, benefits, as well as to reduce the constraint level

and encourage entrepreneurship development in the study area. The following policy recommendations are made based on the findings of the study:

i. the programme should encourage younger generations of female farmers since the mean age of participants was found to be 46 years;
ii. proper infrastructure should be provided as it was a major constraint identified by beneficiaries;
iii. better power supply and transportation network should be provided to prevent loss of farm produce like vegetables that rot easily;
iv. the high-value market should be provided to beneficiaries to sell their products and make more income;
v. training programmes should be encouraged from time to time to teach new or improved farming innovation as it was seen that respondents believed more in their years of farming experience than proper education;
vi. tax policies should be re-visited especially for emerging farmers; and
vii. policymakers should revisit the policies put in place that is a bit challenging for emerging farmers to be able to secure financial support from the financial institutions.

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APPENDIX A: Questionnaire

NORTH-WEST UNIVERSITY MAFIKENG CAMPUS, DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION. QUESTIONNAIRE ON EFFECTS OF AWARDS, INCENTIVES AND COMPETITIONS ON ENTREPRENEURIAL DEVELOPMENT AMONG FEMALE FARMERS IN NORTH-WEST PROVINCE

Questionnaire number: ……..

Municipality: ……..

Dear ma,

Your assistance is required in providing correct answers to the following questions. The researcher is a student of the above-mentioned department and school. Your answers will be treated confidentially and used for academic purpose only. Thank you and regards!

INSTRUCTION: Please write and tick where appropriate

SECTION (A): DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

(A1). Location _____

(A2). Age (Years) _____

(A3). Marital Status (a) Married [ ] (b) Single [ ] (c) Divorced (d) Widowed [ ]

(A4). Educational status (a) Standard [ ] (b) Matric [ ] (c) Diploma [ ] (d) Degree [ ] (e) None [ ]

(A5). Race (a) Black [ ] (b) White [ ] (c) Coloured [ ] (d) Indian [ ] (e) Others, specify _____

(A6). Religion (a) Christianity [ ] (b) Islam [ ] (c) Traditional worshipper [ ] (d) Others, specify _____

(A7). Household size _____

(A8). Farming experience (in Years) _____

(A9). Land ownership (a) Yes [ ] (b) No [ ]

(A10). What is the size of your farm in hectares? _____

(A11). If you do not have a personal farm, where do you farm on? (a) Family land [ ] (b) Communal land [ ]

(c) Lease land [ ] (d) others, specify _____

(A12). What was your employment background before becoming an entrepreneur?

(a) Unemployed [ ] (b) Employed [ ] (c) Others, specify _____

(A13). Indicate the years of employment (a) 1-3 years [ ] (b) [ ] 4-6 years

(c) 7-9 years [ ] (d) ≥ 10 years, specify _____

(A14). How many employees do you have in your business? _____

(A15). How many employees do you have on full-time basis? (a) 1-3 person [ ]

(b) 4-6 persons [ ] (c) 7-9 persons [ ] (d) ≥ 10 persons [ ]

(e) Others, specify _____

(A16). How many employees do you have that work on part-time basis? (a) 1-3 person [ ]

(b) 4-6 persons [ ] (c) 7-9 persons [ ] (d) ≥10 persons (e) others, specify _____

(A17). Kindly indicate the income level of the business per annum _____

(A18). Do you receive extension visits? (a) Yes [ ] (b) No [ ]

(A19). From what source(s) do you use to obtain information on entrepreneurial activities and farming?

(a) Colleagues [ ] (b) Friends [ ] (c) Relatives [ ] (d) Extension agent [ ] (e) Radio (f) Television [ ]

(g) Newspaper (h) others, specify _____

(A20). Are you a member of any cooperative society? (a) Yes [ ] (b) No [ ]

(A21). If (YES), does your membership of the cooperative society contribute to your entrepreneurial practice? (a) Yes [ ] (b) No [ ]

(A22). Please indicate how your membership of the cooperative society contributed to you and your business from the list below

Entrepreneurial Contribution	Degree of helpfulness of the cooperative society			
	Very well	Fairly	Poorly	Not at all
Affordable land lease				
Financial assistance				
Affordable training programmes				
Extension/advisory services				
Provision of credit facilities				
Provision of affordable market				
Provision of healthy market				
Others, specify				

SECTION B: ENTREPRENEURIAL ACTIVITIES AND AREAS IN WHICH YOUR BUSINESS OPERATES

Please indicate by ticking which area you practice your trade from the list below.

Entrepreneurial activity	Tick
Livestock production	
Goat	

Cattle	
Pig	
Sheep	
Lamb	
Others, specify	
Fish farming/ Aqua-culture	
Rainbow trout	
Brown trout	
Koi carp	
Crocodile	
Ornamental fish	
African catfish	
Mozambique & Nile tilapia	
Marron & Waterblommetjies	
Abalone	
Prawns	
Oysters	
Seaweeds	
Spanish & Brown mussels	
Dusky & Silver kob	
Yellow tail	
Atlantic Salmon	
Clown fish	
White margined sole	
West and East coast rock lobster	
Scallop and Blood worm	
Vegetable production	
Cowpea	
Potatoes	
Onion	
Cabbage	
Carrot	
Tomatoes	
Spinach	
Lettuce	
Beetroot	
Cucumber	
Butternut	
Green beans	
Green pepper	
Cleome	
Amaranthus	
Blackjack	
Jewsmallow	
Others, specify	

Poultry production	
Chicken	
Turkey	
Ducks	
Ostrich	
Others, specify	
Food crop production	
Maize production	
Wheat production	
Sunflower production	
Sunflower seeds	
Forestry	
Garden services	
Fruit farming	
Marula	
Red Milkwood	
Mobola plum	
Wild medlar	
Num-Num	
Kel apple Monkey orange	
Others, specify	
Sugar-cane production	
Soya-bean production	
Milling plants	
Abattoir	
Oil seed farming	
Animal fat	
Cotton farming	
Tobacco production	
Ornamental flower and cut flower	
Rice production	
Pearl millet production	
Grain sorghum	
Bambara production	
Groundnut production	
Mung bean production	
Medicinal plants	
Tea farming	
Animal products	
Dairy farming	
Beef production	
Game farming	
Apiary farming	

Please indicate the type of product or service rendered if not listed above	

SECTION C: LEVEL OF PARTICIPATION IN AWARD, INCENTIVES AND COMPETITION PROGRAMME
Please indicate by ticking the necessary and appropriate answer from below

(C1). Have you participated or been short-listed for an award before? (a) Yes [ ]
(b) No [ ]

(C2). If (NO), kindly state the reason(s) why

_____
_____

(C3). Have you received an award before? (a) Yes [ ] (b) No [ ]

(C4). Do you think introduction of awards, incentives and competition would encourage more female subsistence farmers become commercial farmers? (a) Yes [ ] (b) No [ ]

(C5). Indicate below in the table by ticking what your level of participation is.

Statement activity for participants of Award, Incentives and Competition	Level of participation		
	Regularly	Occasionally	Rarely
Involvement in agriculture, forestry and fisheries on full time basis			
Willing to participate in development programmes geared towards encouraging women			
Willing to act as a mentor			
Demonstrate innovation and creativity in improving production			
Involvement in the ownership, management and decision-making aspects of the entity			
Willing to participate in all media related activities			
Access to all relevant documents for verification process			
Willing to be interviewed at all adjudication process			
Willing to allow competition coordinates to take video footage to support information entry forms			
Commitment to care for and ensuring sustainability of the natural resources			
Demonstrate responsible use of production inputs such as pesticides, fertilizers, and vaccines			
Demonstrates an understanding of improved farming methods			
Demonstrates involvement in subsistence activities for at least a period of two years within the agricultural sector			
Demonstrating a good sense of financial management and book keeping			
Produce is sold locally/internationally to enhance economic growth			
Creation of temporary and permanent jobs			
Contribution to employee well-being and development			

(C6). Indicate any area of improvement you might want to suggest to the department of agriculture, forestry and fisheries about the award, incentives and competition programme for female farmers

-

_____

_____

SECTION D: BENEFITS AND INDICATORS OF AWARD, INCENTIVES AND COMPETITION PROGRAMME
Please indicate from the list below the indicator of improvement in your business by marking which is best explanatory through very beneficial, beneficial, little beneficial and not beneficial

Statement	Very beneficial	Beneficial	Little beneficial	Not beneficial
Training exposure				
Skills acquisition				
Peer learning				
Expected record keeping and business plan				
Documentation of plans and activity				
Growth in the employment rate				
Improvement in stocking rate				
Improvement of view and image of business				
Growth of customers				
Expansion of business				
Commitment from employees				
Improvement in job satisfaction				
Others, please specify				

SECTION E: CONSTRAINTS FACED BY FEMALE FARMERS
Please indicate from the list below the constraints faced by you in your business through very severe, severe, little severe and not severe

Statement	Very severe	Severe	Little severe	Not severe
Lack of adequate infrastructure				
Lack of power supply				
Lack of transportation				
Lack of support from financial				

institutions				
Lack of access to high-value market				
Lack of skilled employees				
Lack of proper management				
Inadequate technological know-how				
Too much competition				
Lack of proper and adequate information				
Lack of proper opportunities for small businesses				
Lack of support for the survival of small businesses				
Lack of training facilities				
Cost of running a business				
Poor educational system				
High crime rate				
Lack of reliable employees				
Problems with suppliers				
Lack of family support				
Limited skills in preparing a good proposal for a bank loan				
Lack of self-confidence				
Tax policies				
Lack of business role models				
Lack of collateral to apply for loans				
The fear of failure				

Lack of access to internet services				
Other constraints, please specify				

Section (F): Level of the degree of commercialization among the respondents in the study area
Please indicate from the following.

AIC activity	Farm size	Value of farm produce	Value of livestock sales	Livestock product value	Feed cost per month	Veterinary cost per month	Labour cost per month	Transportation costs to market per month	Value of goods and services acquired through market transaction	Value of goods and services acquired through cash transaction	Gross value of farm produce
Livestock production											
Goat											
Cattle											
Pig											
Sheep											
Fish farming/Aquaculture											
Rainbow trout											
Brown trout											
Ornamental fish											
African catfish											
Oysters											
Vegetable production											
Cowpea											
Potatoes											
Onion											

Cabbage											
Carrot											
Spinach											
Poultry production											
Chicken											
Turkey											
Ducks											
Ostrich											
Food crop production											
Maize production											
Wheat production											
Sunflower production											
Animal products											
Dairy farming											
Beef production											
Game farming											
Apairy farming											

(F1). How much is the daily pay for a farm worker in rand? _____

(F2). How much is your cost on land clearing in rand? _____

(F3). What was your total fixed cost from last year rand? _____

(F4). What was your total variable cost from last year in rand? _____

(F5). How much is your total cost of production in the last year in rand? _____

(F6). What was your total revenue from last year in rand? _____

(F7). What was your profit from last year in rand? _____

APPENDIX B: Letter of Introduction

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Department of Agricultural Economics & Extension

Enquiries: *Dr S. M. Modirwa*
E-mail: *sinah.modirwa@nwu.ac.za*
Tel.: *018 389 2745*
18 April 2018

The Head of Department

Rural Environment and Agricultural Development (READ) Agri. Centre
MMABATHO

REQUEST FOR DATA COLLECTION: Enioluwa Ijatuyi Jonathan

1. Above matter refers.

2. Enioluwa Ijatuyi Jonathan mentioned above is a registered student (student number:

   24818879), studying towards PhD in Agriculture with the North West University. His research topic is ***"Effect of awards, incentives and competition on female entrepreneurship development in North West Province".***

3. Herewith, permission and your support are humbly sought in allowing him to collect data that is essential and a prerequisite for the completion of the study.

Thanking you in advance

Dr S. M. Modirwa
(Programme leader)

APPENDIX C: Informed Consent Release

Investigator:

I am interested in learning more about the "Effect of Award, Incentives and Competition is on female entrepreneurial development in North West Province". You will be asked to tick and answer some questions. All information will be kept *confidential*. I will assign a number to your responses, and only I will have the key to indicate which number belongs to which participant. I will not reveal details or I will change details about where you work, where you live, any personal information about you, and so forth.

Participant - "All of my questions and concerns about this study have been addressed. I choose, voluntarily, to participate in this research project. I certify that I am at least 18 years of age with the Agricultural Economics and Extension department.

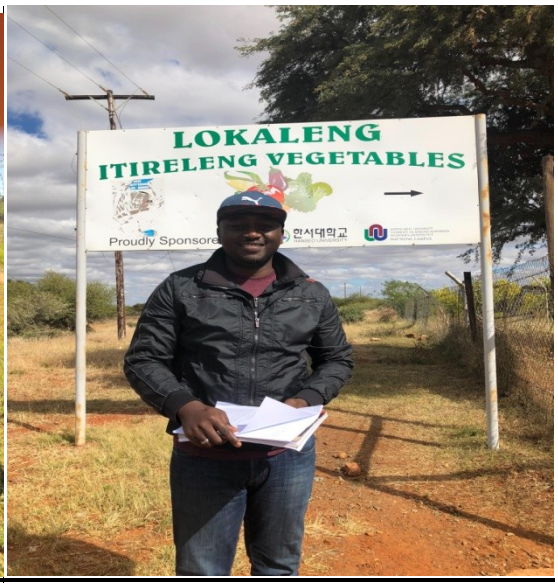
_____ _____

Signature of participant Date

_____ _____

Signature of investigator Date

APPENDIX D: Pictures of researcher, interpreter with some of the respondents across the study area




HEMISPHERE
FAMOUS
FAMOUS


We Produce
Spinach / Beetroot / Carrots / Cabbage
Onions / Pepper / etc.

APPENDIX E: List of publications

The following manuscripts have been drafted out of this thesis and also undergoing a review process.

1. Publication 1

Ijatuyi, E. J., Modirwa, S., Oladele, O. I., & Mabe, L. K. (2017). Effect of Award, Incentives, and Competition on Entrepreneurial Development among Female Farmers in North-West Province, South Africa: A review. *International Journal of Entrepreneurship*, *21*(2):1-18.

2. Work in progress on Publication 2

Socio-economic characteristics of Female Entrepreneurs: Effect on the Level of Participation in a Development Programme in North West Province, South Africa. *International Journal of Gender and Entrepreneurship*, (Tentative publisher)

Authors: Ijatuyi, E. J., Mordiwa, S., Oladele, O. I., & Mabe, L. K

3. Work in progress on Publication 3

Factors Determining the Degree of Commercialization of Female Farmers in a Development Programme: A case study of North West Province, South Africa. *Journal of Agribusiness and Rural Development*, (Tentative publisher)

Authors: Ijatuyi, E. J., Mordiwa, S., Oladele, O. I., & Mabe, L. K

4. Work in progress on Publication 4

Female Entrepreneurship: Constraints Hindering Development in a South African Province. *International Journal of Gender and Entrepreneurship*, (Tentative publisher)

Authors: Ijatuyi, E. J., Mordiwa, S., Oladele, O. I., & Mabe, L. K

5. Work in progress on Publication 5

Relationship between socioeconomic characteristics, benefits, participation in AIC on entrepreneurship development of women farmers in North West Province using Ordered Probit Regression.

International Journal of Gender and Entrepreneurship, (Tentative publisher)

Authors: Ijatuyi, E. J., Mordiwa, S., Oladele, O. I., & Mabe, L. K

APPENDIX F

Totalparticipationscore

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11.00	35	22.3	22.4	22.4
	12.00	10	6.4	6.4	28.8
	13.00	11	7.0	7.1	35.9
	14.00	9	5.7	5.8	41.7
	15.00	14	8.9	9.0	50.6
	16.00	8	5.1	5.1	55.8
	17.00	7	4.5	4.5	60.3
	18.00	2	1.3	1.3	61.5
	19.00	7	4.5	4.5	66.0
	20.00	3	1.9	1.9	67.9
	21.00	9	5.7	5.8	73.7
	22.00	10	6.4	6.4	80.1
	23.00	14	8.9	9.0	89.1
	24.00	5	3.2	3.2	92.3
	25.00	2	1.3	1.3	93.6
	26.00	2	1.3	1.3	94.9
	30.00	1	.6	.6	95.5
	33.00	7	4.5	4.5	100.0
	Total	156	99.4	100.0	
Missing	System	1	.6		
Total		157	100.0		

Benefittotalscore

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	6	3.8	3.8	3.8
	4.00	1	.6	.6	4.5
	5.00	9	5.7	5.8	10.3
	7.00	1	.6	.6	10.9
	9.00	2	1.3	1.3	12.2
	10.00	5	3.2	3.2	15.4
	11.00	16	10.2	10.3	25.6
	12.00	5	3.2	3.2	28.8
	13.00	5	3.2	3.2	32.1
	14.00	4	2.5	2.6	34.6
	15.00	4	2.5	2.6	37.2
	16.00	2	1.3	1.3	38.5
	17.00	6	3.8	3.8	42.3
	18.00	7	4.5	4.5	46.8
	19.00	8	5.1	5.1	51.9
	20.00	4	2.5	2.6	54.5
	21.00	6	3.8	3.8	58.3
	22.00	5	3.2	3.2	61.5
	23.00	7	4.5	4.5	66.0
	24.00	7	4.5	4.5	70.5
	25.00	1	.6	.6	71.2
	26.00	1	.6	.6	71.8
	27.00	4	2.5	2.6	74.4
	28.00	2	1.3	1.3	75.6
	29.00	3	1.9	1.9	77.6
	30.00	8	5.1	5.1	82.7
	31.00	5	3.2	3.2	85.9
	32.00	1	.6	.6	86.5
	33.00	3	1.9	1.9	88.5
	34.00	1	.6	.6	89.1
	36.00	17	10.8	10.9	100.0
	Total	156	99.4	100.0	
Missing	System	1	.6		
Total		157	100.0		

Totalconstraintscore

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9.00	1	.6	.6	.6
	12.00	1	.6	.6	1.3
	19.00	1	.6	.6	1.9
	21.00	2	1.3	1.3	3.2
	22.00	1	.6	.6	3.8
	24.00	1	.6	.6	4.5
	26.00	2	1.3	1.3	5.8
	27.00	4	2.5	2.6	8.3
	29.00	2	1.3	1.3	9.6
	30.00	2	1.3	1.3	10.9
	31.00	6	3.8	3.8	14.7
	32.00	2	1.3	1.3	16.0
	33.00	7	4.5	4.5	20.5
	34.00	3	1.9	1.9	22.4
	35.00	4	2.5	2.6	25.0
	36.00	3	1.9	1.9	26.9
	37.00	2	1.3	1.3	28.2
	38.00	5	3.2	3.2	31.4
	39.00	5	3.2	3.2	34.6
	40.00	5	3.2	3.2	37.8
	41.00	4	2.5	2.6	40.4
	42.00	10	6.4	6.4	46.8
	43.00	6	3.8	3.8	50.6
	44.00	4	2.5	2.6	53.2
	45.00	6	3.8	3.8	57.1
	46.00	8	5.1	5.1	62.2
	47.00	5	3.2	3.2	65.4
	48.00	5	3.2	3.2	68.6
	49.00	3	1.9	1.9	70.5
	50.00	3	1.9	1.9	72.4
	51.00	3	1.9	1.9	74.4
	52.00	3	1.9	1.9	76.3
	53.00	1	.6	.6	76.9
	54.00	1	.6	.6	77.6
	57.00	2	1.3	1.3	78.8

	59.00	2	1.3	1.3	80.1
	60.00	3	1.9	1.9	82.1
	61.00	2	1.3	1.3	83.3
	62.00	4	2.5	2.6	85.9
	63.00	3	1.9	1.9	87.8
	64.00	3	1.9	1.9	89.7
	65.00	3	1.9	1.9	91.7
	66.00	3	1.9	1.9	93.6
	67.00	2	1.3	1.3	94.9
	68.00	2	1.3	1.3	96.2
	69.00	1	.6	.6	96.8
	70.00	1	.6	.6	97.4
	71.00	1	.6	.6	98.1
	73.00	1	.6	.6	98.7
	75.00	1	.6	.6	99.4
	77.00	1	.6	.6	100.0
	Total	156	99.4	100.0	
Missing	System	1	.6		
Total		157	100.0		

Respondents Household Commercialisation Index Score

		Frequency	Percent	Valid Percent	Cumulative Percent
HCI Score					
	.00	11	7.0	7.1	7.1
	.04	1	.6	.6	7.7
	.11	1	.6	.6	8.3
	.15	1	.6	.6	9.0
	.32	1	.6	.6	9.6
	.52	1	.6	.6	10.3
	.59	1	.6	.6	10.9
	.64	1	.6	.6	11.5
	.70	1	.6	.6	12.2
	.75	1	.6	.6	12.8
	.76	1	.6	.6	13.5
	.78	1	.6	.6	14.1
	.80	1	.6	.6	14.7
	.83	1	.6	.6	15.4
	.92	1	.6	.6	16.0
	.96	1	.6	.6	16.7
	.97	1	.6	.6	17.3
	1.00	1	.6	.6	17.9
	1.02	1	.6	.6	18.6
	1.03	1	.6	.6	19.2
	1.03	1	.6	.6	19.9
	1.05	1	.6	.6	20.5
	1.10	1	.6	.6	21.2
	1.10	1	.6	.6	21.8
	1.11	1	.6	.6	22.4
	1.14	1	.6	.6	23.1
	1.16	1	.6	.6	23.7
	1.17	1	.6	.6	24.4
	1.17	1	.6	.6	25.0
	1.18	1	.6	.6	25.6
	1.19	1	.6	.6	26.3
	1.20	1	.6	.6	26.9
	1.21	1	.6	.6	27.6
	1.23	1	.6	.6	28.2
	1.23	1	.6	.6	28.8
	1.27	1	.6	.6	29.5
	1.28	1	.6	.6	30.1

	1.28	2	1.3	1.3	31.4
	1.29	1	.6	.6	32.1
	1.29	2	1.3	1.3	33.3
	1.30	1	.6	.6	34.0
	1.32	1	.6	.6	34.6
	1.35	1	.6	.6	35.3
	1.37	1	.6	.6	35.9
	1.37	1	.6	.6	36.5
	1.38	1	.6	.6	37.2
	1.38	1	.6	.6	37.8
	1.39	2	1.3	1.3	39.1
	1.40	1	.6	.6	39.7
	1.41	1	.6	.6	40.4
	1.41	1	.6	.6	41.0
	1.43	3	1.9	1.9	42.9
	1.44	1	.6	.6	43.6
	1.46	1	.6	.6	44.2
	1.47	1	.6	.6	44.9
	1.50	1	.6	.6	45.5
	1.51	1	.6	.6	46.2
	1.51	1	.6	.6	46.8
	1.52	1	.6	.6	47.4
	1.54	2	1.3	1.3	48.7
	1.60	1	.6	.6	49.4
	1.61	1	.6	.6	50.0
	1.62	1	.6	.6	50.6
	1.62	1	.6	.6	51.3
	1.63	1	.6	.6	51.9
	1.63	1	.6	.6	52.6
	1.67	1	.6	.6	53.2
	1.70	1	.6	.6	53.8
	1.71	2	1.3	1.3	55.1
	1.74	5	3.2	3.2	58.3
	1.74	1	.6	.6	59.0
	1.75	1	.6	.6	59.6
	1.77	1	.6	.6	60.3
	1.78	1	.6	.6	60.9
	1.79	1	.6	.6	61.5
	1.85	2	1.3	1.3	62.8
	1.88	2	1.3	1.3	64.1
	1.90	1	.6	.6	64.7
	1.93	1	.6	.6	65.4
	1.94	1	.6	.6	66.0

	1.99	5	3.2	3.2	69.2
	2.00	1	.6	.6	69.9
	2.01	1	.6	.6	70.5
	2.08	1	.6	.6	71.2
	2.08	1	.6	.6	71.8
	2.12	1	.6	.6	72.4
	2.14	1	.6	.6	73.1
	2.21	1	.6	.6	73.7
	2.33	1	.6	.6	74.4
	2.33	1	.6	.6	75.0
	2.42	1	.6	.6	75.6
	2.50	2	1.3	1.3	76.9
	2.58	2	1.3	1.3	78.2
	2.59	2	1.3	1.3	79.5
	2.73	1	.6	.6	80.1
	2.81	1	.6	.6	80.8
	2.85	1	.6	.6	81.4
	2.88	1	.6	.6	82.1
	2.89	2	1.3	1.3	83.3
	2.95	1	.6	.6	84.0
	2.98	1	.6	.6	84.6
	3.08	1	.6	.6	85.3
	3.11	1	.6	.6	85.9
	3.31	1	.6	.6	86.5
	3.33	2	1.3	1.3	87.8
	3.59	1	.6	.6	88.5
	3.60	1	.6	.6	89.1
	3.72	1	.6	.6	89.7
	3.89	6	3.8	3.8	93.6
	4.34	1	.6	.6	94.2
	4.71	1	.6	.6	94.9
	5.00	3	1.9	1.9	96.8
	5.33	1	.6	.6	97.4
	7.37	1	.6	.6	98.1
	13.64	1	.6	.6	98.7
	13.99	1	.6	.6	99.4
	16.67	1	.6	.6	100.0
	Total	**156**	**99.4**	**100.0**	

Relationship between socioeconomic characteristics, benefits, constraints and participation in AIC on entrepreneurship development of women farmers using Ordered Probit Regression

Ordered probit regression, Number of obs = 153, LR chi^2 (26) = 104.08, Prob > chi^2 = 0.0000, Log likelihood = -84.228576, Pseudo R^2 = 0.3819.

Entrepscore	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
EDUSTATUS	.2811706	.1478956	1.90	0.057	-.0086994	.5710407
FARMSIZE	-.1019777	.2524413	-0.40	0.686	-.5967535	.392798
HOUSEHOLDSIZE	.1396098	.0669487	2.09	0.037	.0083927	.270827
FARMEXPYEARS	.017742	.0126919	1.40	0.162	-.0071337	.0426176
FARMLAND	-.1479899	.1146975	-1.29	0.197	-.3727928	.076813
INCOMELEVL	2.18e-07	3.30e-07	0.66	0.508	-4.28e-07	8.65e-07
EXTNSVISIT	.889741	.3519285	2.53	0.011	.1999737	1.579508
EXTNSOURCE	.3429249	.0996468	3.44	0.001	.1476208	.538229
ACCRELDOC	-.6900797	.2278942	-3.03	0.002	-1.136744	-.2434153
ENSURSUSNAT	1.005267	.3673193	2.74	0.006	.2853347	1.7252
RSPNBUSE	.6290407	.3523991	1.79	0.074	-.0616488	1.31973
IMPRVFARMMTD	-.3370358	.3324308	-1.01	0.311	-.9885881	.3145166
EMPWELLBNG	.4370047	.2869723	1.52	0.128	-.1254507	.99946
IMPSTCRATE	-.1864043	.2840523	-0.66	0.512	-.7431365	.370328
GRWTHCUS	.8868835	.3368878	2.63	0.008	.2265956	1.547171
EXPOFBUSN	-.6348266	.3134103	-2.03	0.043	-1.2491	-.0205536
COMEMP	.3160477	.2496458	1.27	0.206	-.1732492	.8053445
LCKACHVMRKT	-.6438014	.1905553	-3.38	0.001	-1.017283	-.2703198
LCKSKLDEMP	.4273929	.1538476	2.78	0.005	.1258571	.7289287
TOOMUCHCMP	-.4913043	.2277263	-2.16	0.031	-.9376397	-.0449689
LCKSURSMB	1.006771	.2666998	3.77	0.000	.4840489	1.529493
COSTOFRUNB	.1185864	.1943975	0.61	0.542	-.2624257	.4995984
PREDUSYSTM	-.5076741	.1797628	-2.82	0.005	-.8600027	-.1553455
PROBWITSUP	-.1757056	.1767501	-0.99	0.320	-.5221295	.1707183
TAXPOL	.3436931	.17088	2.01	0.044	.0087745	.6786117
LCKBUSRLMD	.3863673	.1727879	2.24	0.025	.0477092	.7250255
/cut1	4.192548	1.234652		1.772674	6.612422	
/cut2	6.565528	1.312396		3.993278	9.137777	

Entrepscore= Entrepreneurship score index, EDUSTATUS= Educational status, Farm size, Household size FARMEXPYEARS= Farming experience (Years), FARMLAND= Farming land, INCOMELEVL= Income level, EXTNSVISIT= Extension visits, EXTNSOURCE= Extension source, ACCRELDOC= Access to all relevant documents for verification process, ENSURSUSNAT= Commitment to care for and ensuring sustainability of the natural resources, RSPNBUSE= Demonstrate responsible use of production inputs such as pesticides, fertilizers, and vaccines, IMPRVFARMMTD= Demonstrates an understanding of improved farming methods, EMPWELLBNG= Contribution to employee well-being and development, IMPSTCRATE= Improvement in stocking rate, GRWTHCUS= Growth of customers, EXPOFBUSN= Expansion of business, COMEMP= Commitment from employees, LCKACHVMRKT= Lack of access to high value market, LCKSKLDEMP= Lack of skilled employees, TOOMUCHCMP= Too much competition, LCKSURSMB= Lack of support for the survival of small business, COSTOFRUNB= Cost of running a business, PREDUSYSTM= Poor educational system, PROBWITSUP= Problem with suppliers, TAXPOL= Tax policies, LCKBUSRLMD= Lack of business role models

Covariances and Correlations of Parameter Estimates

		Totalparticipationscore	Benefittotalscore	Totalconstraintscore	AGE	FARMEXPYEARS	FARMSIZE	FARMLAND	EXTNSVISIT	INCOMELEVL	EXTNSOURCE	HOUSEHOLDSIZE	EDUSTATUS
PROBIT	Totalparticipationscore	.000	.004	.018	-.036	.163	-.014	-.048	-.103	.090	.140	-.122	-.022
	Benefittotalscore	.000	.000	-.052	-.050	.098	-.184	.030	.295	-.063	-.144	-.072	-.134
	Totalconstraintscore	.000	.000	.000	.070	-.164	-.104	-.105	-.048	.163	-.222	-.092	.011
	AGE	.000	.000	.000	.000	-.491	.134	.152	.111	-.145	-.249	-.252	.304
	FARMEXPYEARS	.000	.000	.000	.000	.000	-.142	-.108	.005	.099	.276	.115	.086
	FARMSIZE	.000	.000	.000	.000	.000	.000	-.089	-.031	.010	.004	.196	-.023
	FARMLAND	.000	.000	.000	.000	.000	.000	.000	-.018	-.156	-.099	.000	.070
	EXTNSVISIT	.000	.000	.000	.000	.000	.000	.000	.003	.010	.032	-.006	-.011
	INCOMELEVL	.000	.000	.000	.000	.000	.000	.000	.000	.000	-.052	.126	-.221
	EXTNSOURCE	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	-.039	.093
	HOUSEHOLDSIZE	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.042
	EDUSTATUS	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001

Covariances (below) and Correlations (above).

Chi-Square Tests

		Chi-Square	df[a]	Sig.
PROBIT	Pearson Goodness-of-Fit Test	250.265	140	.000

a. Statistics based on individual cases differ from statistics based on aggregated cases.