PERCEPTIONS HELD BY UNIVERSITY OF LIMPOPO AGRICULTURAL STUDENTS TOWARDS SELF-EMPLOYMENT IN AGRIBUSINESS

BY

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DECLARATION

I declare that the research report titled “Perceptions held by University of Limpopo Agricultural students towards Self-employment in Agribusiness”, for the degree of Master of Agricultural Management (Agricultural Extension) has not previously been submitted by me for a degree at this or any other university; that it is my work in design and in execution, and that all material contained herein has been appropriately acknowledged.

Dlamini B.P Date: _____

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Thank you!!!

ABSTRACT

This study was aimed at analyzing the perception of students towards self-employment in agribusiness. Primary data was collected at the University of Limpopo using questionnaires from five disciplines in the School of Agriculture and Environmental Science (SAES). The study population was final year undergraduate, stratified random sampling procedure was used to select seventy-one (71) respondents from the cluster of departments within SAES. Descriptive statistics such as frequency count, percentage and mean score on a Likert-type of scale and Chi-squared test were used to address various objectives of the study.

Results of the study indicated that most respondents were aged between 21-27 years old, a majority of them were doing a degree in animal production, most of the students were females, majority come from households with 4-6 family members, many come from rural areas, most of the students had no relatives owning a business, most of the respondents had no access to farming land, and about half of the respondents had no farming experience.

Respondents had a positive perception towards self-employment in agribusiness with them agreeing on statements like farmers are notable people, entrepreneurship is effective in reducing unemployment, farming is sustainable and disagreeing with statements like farming is for poor people, profitability in farming is very low, that they prefer other degrading jobs than engaging in agriculture. The results also show that most of the students preferred starting facilitation and agency of agricultural insurance savings, followed by poultry enterprise and provision of extension consultancy services.

The study also found that most of the motivator's motivating respondents to pursue self-employment include that agricultural related enterprises are very lucrative, also that many South Africans have made a lot of fortunes from agriculture and that agriculture in South Africa has a lot of untapped potential. The barriers include that agriculture is a risky business enterprise in South Africa and that it is not easy to create self-employment in agribusiness. It was also found that perceived barriers and motivators were highly associated with the type of degree students were studying.

The study recommended that the University of Limpopo curriculum must have a module dealing with agriculture venture creation related to the degree and be more practically based. The University of Limpopo also has to invite entrepreneur's guest lecture for their students and produce more research on how to promote youth participation in agriculture especially establishing agribusiness. Development of easily accessible ready-to-market and agricultural commodity distribution centers will inspire more young people to move into farming. First preference needs to be given to agriculture graduates when offering sponsorship, grants and agribusiness loans.

Keywords: agricultural programmes**,** youth and agriculture, perception, agricultural entrepreneurship, agri-business, self-employment.

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LIST OF ACRONYMS

SAES : School of Agriculture and Environmental Science

FASDEP : Food and Agriculture Sector Development Policy

NDP : National Development Plan

NYDA : National Youth Development Agency

ILO : International Labor Organization

AGRI : Agriculture

FSP : Financial Service Providers

SEF : Syferkuil Experimental Farm

ICRA : International Centre for Development Oriented Research in Agriculture

ARC : Agricultural Research Council Institutes

BSc : Bachelor of Science

SPSS : Statistical Package for the Social Sciences

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CHAPTER 1: INTRODUCTION

1.1 Background of study

Man's fundamental form of cognitive engagement with the world around him is perception. The study of perception has always had a special significance for philosophy and science because all conceptual knowledge is dependent on or derived from this initial kind of awareness (Efron, 1969).

According to Dollarhide (2020) a self-employed person is not hired by a single company that gives them a set salary or wage. Self-employed people, often known as independent contractors, make money by directly contracting with a trade or business.

Shiri *et al*. (2013) found that agricultural students' perceptions and attitudes regarding entrepreneurship have a positive and significant impact on their entrepreneurial motivations. If left unchecked, as Shiri *et al.* (2013) claims, perception might have a detrimental impact on a student's decision to work for themselves. The attitudes of agricultural students regarding self-employment after graduation have received little attention. As a result, research into agricultural students' perceptions about self-employment in agribusiness is needed in order to find ways and techniques to encourage and stimulate them to pursue self-employment.

The School of Agricultural and Environmental Sciences (SAES) works collaboratively with key stakeholders such as the Provincial and National Departments of Agriculture, District Municipalities, statutory agricultural research councils, commercial farmers, and commodity associations to change perceptions. This puts the institution in a unique position to assist mould its alumni' attitudes regarding self-employment in agribusiness.

The research was carried out at the University of Limpopo's SAES, which is part of the Faculty of Science and Agriculture. The SAES vision is to "be innovative leaders

in finding sustainable solutions for Africa's agricultural and environmental needs". While the mission states that SAES's goal is to "produce competitive agricultural and environmental professionals in Southern Africa through innovative teaching, research and community engagement". The SAES aim and vision, in my opinion, is to generate professionals who will work for other firms rather to being self-employed, which will result in the graduate being unemployed, contributing to the already high unemployment rate, while they have the capacity to start agri-businesses.

The researcher claims that it is necessary to identify agricultural students' perceptions about self-employment in agribusiness since knowing and comprehending their attitudes, barriers, and preferences is important. This research report will put the researcher in the best position to suggest some options for increasing student engagement and establishing agribusiness after graduation. Porter and Kwasi (2017) believe that now, more than ever, is a perfect moment to get young people engaged in farming so that they can meet the growing global food consumption.

Indeed, it is only when we have, performed some kind of a diagnosis that we can offer practicable solutions to the problem.

1.2 Problem statement

According to Kgowedi (2000) the farming population in South Africa is ageing. This was supported by News24 (2012) in which AgriSA estimated that the average age of a farmer in South Africa is 62 years. With the already low levels of agricultural activities it is likely to drop further as farmers get older, imperiling any hope for rural development in the future.

The Ministry of Food & Agriculture (2007) reviewed the implementation of Food and Agriculture Sector Development Policy (FASDEP) asserted that there is an aging farmer population but still the sector is unable to attract the youth. A closer examination of youth unemployment in the country revealed an alarming situation of rising joblessness amongst graduates of tertiary institutions. Graduate job placement has become a major challenge facing developing countries including South Africa

(Patton 2005).

STATS SA (2018) states that South Africa is currently facing annual increase in the rate of youth unemployment standing at of (38.2%), these are people aged 15–34 years. There is a common belief among the youth of South Africa that farming is dirty work and is for uneducated people (Swarts & Aliber, 2013). Even though the National Development Plan (NDP) reports that agriculture has the potential to create new jobs close to one million by 2030, this will be a significant contribution to the overall employment target, but yet the youth of South Africa still shows less interest in developing agribusinesses.

According to Barraclough *et al.* (2009) inculcating entrepreneurship intention and capability among university graduates and facilitating them through the establishment of enabling environment for self-employment enterprise creation had been noted as the effective and lasting solution to graduate unemployment problem. Several initiatives like National Youth Development Agency (NYDA) among others have been implemented with the aim of developing the entrepreneurial skills of the youth and promoting self-employment in the country.

However, the critical question that always arises is how the youth, especially graduates from the tertiary institutions, perceive self-employment in agribusiness as an employment opportunity for them and most people act based on their perception (Lowden *et al*., 2011 & Highfliers, 2012).

Although agriculture graduates are produced every year into the labor market, there is little or no evidence that these graduates will opt for self-employment in agribusiness. According to Liu (2014), the expectations of these graduates are to find employment in government and private sectors. Does this reflect the failure of the agriculture curriculum in inculcating farming knowledge and skills for students to pursue self-employment in agribusiness? This question has not been explored even though universities are producing agricultural graduates every year.

1.3 Aim of study

The main aim of the study is to analyze the perceptions held by the final year agriculture students of the academic year 2019/2020 in the University of Limpopo towards creating self-employment in agribusiness upon completion of their degrees.

1.4 Objectives of study

The objectives of the study are to:

I. Describe the socio-economic characteristics of students studying agriculture.
II. Analyze the perception of agriculture students towards self-employment in agribusiness.
III. Identify type of agribusiness preferred by the students.
IV. Identify barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum.

1.5 Definition of concepts

1.5.1 Agribusiness

According to Igual & Vidal (2002) agribusiness is the business sector encompassing farming and farming-related commercial activities. The business involves all the steps required to send an agricultural good to market: production, processing and distribution. It is an important component of the economy in countries with arable land, since agricultural products can be exported. According to Dy (2005) agribusiness is more than agriculture. It spans the entire supply chain from seed to shelf, or from pasture to plate.

1.5.2 Entrepreneurship

Entrepreneurship according to Onuoha (2007) is the practice of starting new organizations or revitalizing mature organizations, particularly new businesses generally in response to identified opportunities. Bolton & Thompson (2004) have defined an entrepreneur as “a person who habitually creates and innovates to build something of recognized value around perceived opportunities”.

1.5.3 Perception

According to Schacter, Guerin & Jacques (2011) perception is from the Latin word perception, meaning gathering or receiving, identification, and interpretation of sensory information in order to represent and understand the presented information or environment.

1.5.4 Self-employment

According to Constant, Shachmurove & Zimmermann (2007) a self-employed individual is one that does not work for a specific employer who pays them a consistent salary or wage.

1.6 Motivation of study

The results of this study will provide valuable information on how to develop more effective ways and strategies of motivating and encouraging students/graduates to pursue self-employment in agribusiness, which in turn will reduce the unemployment rate among agricultural graduates. It will also contribute to the large body of knowledge in the scientific world with regard to decision making of agricultural students to choose self-employment in agribusiness. Furthermore, the results of the study will also find solutions to increase the participation of youth in farming which is a challenge currently facing South Africa as part of the vision 2030 plans of stimulating youth participation in agricultural activities. Agribusiness has great potential to reduce the overall unemployment rate in South Africa and other developing countries.

1.7 Study outline

The first chapter constitutes the background of the study, which includes the introduction, problem statement, objectives of the study, definition of concepts, and significance of the study. The second chapter presents a review of the literature on perceptions held by University of Limpopo agricultural students towards self-

employment in agribusiness in order to generate a theoretical perspective on the subject. Chapter three presents the research methodology which consist of the research design, study area, population size, sampling size and selection method, data collection method, and data analysis method. The fourth chapter contains results and discussion of the study. Chapter five presents the conclusion and recommendations.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review with the purpose of gaining an understanding of the existing research and debates on the perceptions held by agricultural students towards self-employment in agribusiness, and also identify gaps in the existing research. The chapter will start by defining important concepts used in this study, then continue looking at youth and agriculture: a general overview. The chapter will also cover the following sections: Socio-personal characteristics of agricultural student, Psychological characteristics of agricultural students, Role of media in promoting entrepreneurship among agricultural students, Limiting factors for agricultural students to participate in agri-businesses, Agricultural curriculum and promoting entrepreneurship, Access to financial services for the promotion of entrepreneurship among agricultural graduates, Access to market for the promotion of entrepreneurship among agricultural graduates, Access to farming land for the promotion of entrepreneurship among agricultural students, Promoting self-employment in agribusiness among agricultural students and the chapter will draw a summary and conclusion of the literature review.

2.2 Youth and Agriculture: A general overview

According to the constitution of the Republic of South Africa (2009) to fall under the criteria of youth you have to be 14 to 35 years of age. International labor organization (ILO) (2017) acknowledges that, tenacious unemployment has become closely associated with youth in South Africa. Moreover, Spaul (2013) believes that the monthly living wage of those who are employed still fall below the recommended wages by government and this results in youth employment disaster.

Orthodox opinion has it that people of age 14 to 34 years are turning their backs on the agricultural sector although it has high potential to create jobs. Metelerkamp, Drimie & Biggs (2019) argue that the ongoing notion of youth neglecting agriculture seems to be true. Metelerkamp *et al*. (2019) study on youth perspectives on

agricultural careers in South Africa believed that agriculture was the most difficult sector to make a career choice when compared to other careers. Metelerkamp *et al*. (2019) study reveals that the problem is not a lack of interest, but it is because the youth believe agriculture is either back-breaking or financially unappealing at small-scale levels or they were in large agri-businesses where workers are often treated terribly. Metelerkamp *et al.* (2019) state that agriculture is perceived by many as a risky career path that involved a lot of hard work for little financial reward, which makes the point that negative stigmas agriculture appears to carry are stronger when compared to other careers.

Young people are estimated to rise to 1.3 billion in the next three decades and the number of people on earth is also anticipated to reach 9 billion by 2050, with young people accounting for approximately 14 percent of the global population projected. Most will be born throughout Africa and Asia, developing countries where more than half of the population still live in rural areas (UNDESA, 2012).

According to Cloete (2015) rural youth have been dealing with issues linked to unemployment, underemployment and poverty. With different socio-economic backgrounds for example; age, education, culture, religion, farming practice, income, peer pressure, and community values, youth have different risk perceptions towards farming, resulting in different economic behaviors and decision-making.

The agricultural industry has a huge potential of creating opportunities and employment for youth in South Africa. However, Proctor & Lucchesi (2012) believe that despite the large potential of the agricultural industry to provide rural youth with income-generating opportunities, obstacles specifically related to youth participation in this industry and, more importantly, options for overcoming them are not extensively documented. Additionally, statistics on rural youth are often lacking, as data are rarely disaggregated by important factors such as age, sex and geographical location.

2.3 Characteristics of students involved in agricultural careers

There are several socio-characteristics drawn from the social divisions of the society (e.g. age, gender, type of family, qualification, locality and income) which are linked to farming and agricultural careers. However, age and gender are the most studied social divisions in farming and agricultural career.

2.3.1 Students involved in agricultural careers by age

According to Douglas, Singh & Zvenyika (2017) age is one of the most significant factors when it comes to farming and agricultural careers in the sector because elderly farmers are expected to make sound farming decisions and ensure their projects are sustainable, they can forecast and guard against risk during planning process. However, Matanmi & Olabanji (2013) argue that the age group 19 to 37 years is economically involved and people in this group are typically inspired, energetic and creative. This means that the youth are economically useful. Hence, they have the potential strength necessary for agricultural activities.

Abebo & Sekumade (2013) asserted that the age range of 19 to 37 years is an important productive age that can be explored in agricultural sector for growth and the economy as a whole. In addition, Fabiyi, Obaniyi, Olukosi & Oyawoye (2015) reported that up to (70%) of young people between the ages of fifteen and twenty-five live in rural areas of many developed countries. Many of the rural youth may be involved with their parents in agricultural activities, which may help them to have a positive attitude towards agriculture. However, Tauer (1995) found that younger and older farmers' efficiencies are lower than middle-aged farmers, and if so, extension, research or policy programs designed to mitigate or accommodate these differences may be useful. Agriculture is a demanding business and if young farmers want to thrive, they need to become effective at starting up. Tauer (1995) emphasizes that as the average age of the South African farmer continues to increase, it is important not to decrease the overall competition with the farmers of other countries. Abebo & Sekumade (2013), Fabiyi, Obaniyi, Olukosi & Oyawoye (2015) and Tauer (1995) all agree that in order for the agriculture industry to strive youth need to be involved and need to be in the forefront.

Jack, Dodd & Anderson (2008) reveal how the entrepreneurial behaviors of

individuals change over the years. Some still show an imaginative tendency in puberty. Some do not become entrepreneurs until they retire. Ultimately there is no wrong time to become a farmer. In fact, you cannot get it out of your head if you have an entrepreneurial idea, no matter what your age is, the best time is probably right now.

Agumagu, Ifeanyi & Agu (2018) found that (57%) of the respondents were between the ages of 22-24 years. This finding is similar to Ayanda, Olooto, Motunrayo, & Abolaji, *et al.* (2012) which established that agricultural students of Kwara State University, Nigeria were adolescent with mean age of 19.6. In addition, Douglas K, Singh & Zvenyika (2017) stated that the highest age prevalence (41%) was found to be between 20 and 24 years. Only 5 were between the ages of 30 and 35 (7%). This statistic shows that most agricultural student's age ranges in between 15 to 35 which is a definition of youth age category by the South African Constitution.

2.3.2 Students participation in farming and agricultural careers by gender

Age, gender, employment status, schooling, wages, encouragement, and expectations, according to Bosma & Harding (2007), are all important socioeconomic factors in a person's decision to start a business. According to Long (2013), agricultural researchers and policy analysts must be aware of how gender and agriculture affect men's and women's livelihood and income strategies in order to understand how gender relations affect agricultural and food security outcomes and are themselves affected by the social, institutional, and political context of a specific society. Long (2013) further states that agriculture has historically been a male-dominated industry in many countries including South Africa. Gelen (2007) also reported that only twenty percent of the respondents were female whereas eighty percent were male. According to Fabiyi, Obaniyi, Olukosi & Oyawoye (2015) women students were normally separated to study home-economics in the past with male students studying agriculture. Secondary school curricula changed about a decade ago, and both sexes now study agriculture and home economics. Women were under-represented in agriculture, despite playing important roles on and off the farm. Women, on the other hand, have increasingly entered agriculture in recent decades, increasing their presence both on and off the farm.

According to Tolamo (2012), slightly more than half of the respondents (51%) were males, while (49%) were females. While there is a small gap, it should be noted that male dominance in the agricultural sector is changing; females are studying agriculture in secondary school. Forty-eight percent of female respondents believe there is a good chance of growth in the future for female food producers. Chidi (2014) shows that the vast majority (57%) of the respondents in the agricultural undergraduate program were males, while the remaining 43% were females. Saliu, Onuche & Abubakar (2016) highlighted that the gender distribution of Kogi State University agricultural students of which about half (55%) and (45%) were males and female respectively. However, Pouratashi (2014) has shown that there is no substantial variation between the two classes (males and females) in entrepreneurial motive, this was supported by Omotesho, Olabanji, Olabode, & Ogunlade (2017) whose results also shows that 53% of the respondents were females. In my view when it comes to agricultural entrepreneurship gender should not be a barrier for youth who are not yet married.

More women than ever before hold key leadership and management roles on the farm. On the farm, men and women often played different duties. Women are now taking on more duties both on and off the farm, and they are figuring out the best approach to run their businesses in the face of the hurdles they confront when they first enter the field (FAO, 2011).

Women have historically been involved in farm production, according to Smyth, Swendener, & Kazyak (2018), but it has been associated with backbreaking labor. Women have become more actively involved in recent decades, and they are more likely to assume active and equal roles on farms and in other agricultural jobs, and they are so increasingly performing duties associated with hard labor. Domesticity, which is identical with rural femininity (Campbell & Bell, 2000; Little, 2002; Little & Austin, 1996) explored how agricultural activities are gendered insofar as the majority of farm labor is associated with hard labour. When women labor on farms, they may face men's hostility and mistrust, emphasizing the link between masculinity and agriculture. (Brandth, 2006; Trauger *et al*., 2008). According to Douglas, Singh, and Zvenyika (2017), male youngsters are often expected to offer labor and

manpower in the fields, whilst their female counterparts are accountable for indoor duties. When the male inherits his parents' property and assets, he is expected to have good farming abilities and be self-sufficient, but the girl joins another family when he marries. In contrast, Saliu, Onuche, & Abubakar (2016) suggest that agricultural education provides equal possibilities for men and women to earn a living. This finding is consistent with the findings of Ayanda *et al.* (2012), who assumed that all genders have equal opportunity for educational advancement. However, Seema (1997) is of the opinion that the majority of male respondents had a high level of entrepreneurial behavior than female respondents.

The information presented above suggests that there are correlations between gender and engagement in agricultural activities, as well as another association between gender and agricultural education. This means that the majority of males participate in agricultural training workshops and are exposed to current farming skills and technologies, whereas women are responsible for indoor activities at home. As a result, the mentality of those who decide to enter into agricultural business is influenced by these linkages. Gender, according to Silva *et al.* (2010), is one of the markers for the characteristics that influence young people's attitudes about entrepreneurship and acceptance. I feel that the increased engagement of women in agriculture has shattering the relationship between farming and masculinity. This can be attributed to new creative implements that make farming easier. Rural academics may claim that gender and heterosexuality are entrenched in many aspects of farm life, from land acquisition to everyday labour, as farming diversifies and femininity and masculinity understandings are centered on less strict roles (Leslie, 2017; Whatmore, 1991).

Lans *et al.* (2010) acknowledged that men are only slightly more likely than women to start a business. Sookhtanlo & Al (2009) also noted that comparing the level of entrepreneurial capacity of respondents based on sex implies significant differences between female and male students in risk-taking, achievement motivation, and creativity. When compared to their male counterparts, female students demonstrated better risk-taking ability and achievement motivation, according to this examination. However, Kumar & Durairaj (2013) discovered that males and females had distinct attitudes toward selecting entrepreneurship as a profession, despite the fact that

there is no difference in opinion between males and females.
Manuere *et al*. (2013) discovered no gender differences in ratings of job growth challenges, company start-up, risk-bearing, and mergers. These studies do not agree with each other, which, in my opinion, could be related to the fact that respondents originate from varied backgrounds (socio-economic and socio-demographic), which the research did not take into account.

Stephen (2004) investigated whether gender "gaps" in these traits differ between countries and cultures by examining discrepancies between men and women in terms of the characteristics connected with the potential for entrepreneurial practices. Gender differences in risk-taking proclivity were shown to be positively associated with the cultural component of individualism and negatively associated with the cultural component of uncertainty avoidance. Gender inequalities in entrepreneurial characteristics were greatest in advanced economies and smallest in developing economies.

2.3.3 Family and influence on student participation in farming and agricultural careers

According to Keat, Selvarajah & Meyer (2011), people's families had an impact on their likelihood of becoming entrepreneurs. Having self-employed fathers was connected with entrepreneurship in men. Coming from a higher socioeconomic class family, on the other hand, predicted entrepreneurship among women. Kadiri & Reddy (2012) discovered that family type was positively important in explaining the students' attitude variance in their multiple linear regression investigation. Family influence or social capital can be classified as having weak or strong links (Davidsson & Honig 2003; Venter *et al.* 2008). Weak ties are weak relationships between individuals and distant family members, whereas strong ties are mostly found inside the nuclear family (mother and father). Weak ties may disclose specific talents required to achieve entrepreneurial goals, but strong ties may be used to promote entrepreneurial goals (Mosey, Noke & Binks, 2012). Both weak and strong links, according to Adler & Kwon (2002), are likely to increase engagement in smallholder agricultural entrepreneurs. Weak relationships may be valuable for gaining access to information that would otherwise be too expensive. Both weak and

strong links have the ability to develop social capital, which can contribute positively to entrepreneurial goals. Strong ties are those involving family, which account for secure and extended access to resources. A farmer might rely on a family member to access funding.

The impact of family on entrepreneurial achievement includes providing access to a variety of rare resources such as land (Maman, 2000). Providing access to intangible resources such as credibility and skill to entrepreneurs (Bosma, Van Praag, Thurik & De Wit, 2004). Given that entrepreneurs have a limited ability to gather and digest information needed in the decision-making process, access to such information is crucial. During the startup process, information about distributors, suppliers, competitors, and client organizations is required (Friedman *et al.,* 2003).

Empirical studies by Eesley & Wang (2016), Fairlie & Robb (2007), and Laspita *et al.* (2012) found that children from entrepreneurial households are more likely to establish their own firms or join the family business. Sorensen (2007) found that children with self-employed parents are twice as likely to become self-employed, but there is little evidence to show that these young people become independent because they have privileged access to the financial or social capital of their parents, or because they have superior entrepreneurial abilities.

According to Farale (2012), the sentiment of young people towards agriculture as a career has been studied, and it has been reported that the background of pupils or students, such as where they come from and their parents' occupation, has influenced their attitude towards agriculture and other organizations after graduation (Farale, 2012). According to Papanek & Gustav (1967), the roots of entrepreneurship were educational, occupational, and financial backgrounds. Mehta (1974) came to the conclusion that the mother's education was related to the girls' future job intentions.

The most recent international report of the GUESSS Project–Global Student Entrepreneurship 2018 Sieger *et al.* (2018), based on 208,000 completed responses from 54 countries and 3000 universities, revealed that students with entrepreneurial parents have a higher intention to become entrepreneurs than students without

entrepreneurial parents, depends on the business achievement of the parents Students whose parents or ancestors were not successful entrepreneurs, in the writers opinion, are unlikely to pursue entrepreneurship.

Bosma *et al.* (2012) state that four functions of entrepreneurial role models can be formulated that are interrelated: inspiration and motivation, increasing self-efficacy, learning by example, and learning by support. The mechanisms of social influence via parents may include the transmission of skills gained through experience, tacit knowledge, and modeling of career options (Eesley & Wang, 2016).

According to Walter & Dohse (2009), social networks are key in imparting tacit information about how to capitalize on entrepreneurial possibilities, with parental role models functioning as a substitute for tacit knowledge gained via entrepreneurial experience (Bosma *et al*., 2012). According to Faas *et al.* (2013), parents with jobs that require managerial, training, and communication abilities can convey these talents to their children through a variety of direct and indirect behaviors (Faas *et al.,* 2013).

Sorensen (2007); Mungai & Velamuri (2011) explained the intergenerational transmission of self-employment, suggesting different mechanisms such as the influence of parental characteristics on children's aspirations and values and on the development of entrepreneurial skills. I believe that parents play a big role in shaping their children's which involve their career paths.

Fabiyi, Obaniyi, Olukosi & Oyawoye (2015) acknowledges that the parents' level of education may influence the choice of subjects for their children to be studied at university. Several parents with low educational background may want their children to study medicine. Lack of knowledge of what farming is consequences include young people who do not want to pursue agriculture. Who see agriculture as poor a man's industry. It was based on Okon (1986) study that certain parent factors that may influence career choice included occupational rank, self-conception, parental attitude and experience.

Entrepreneurial values and know-how can be taken up by children from parental role

models, both during primary socialization and in later stages of life (Walter & Dohse, 2009). Based on the effect of parental role models, the decision to become an entrepreneur is positively correlated, according to some studies Chlosta *et al*. (2012); Fairlie & Robb (2007); Laspita *et al.* (2012); Mueller (2006) , with having parents who are or have been entrepreneurs or self-employed.

Regarding students from this particular family background who inherit the atmosphere of a business setting that could impact their future career intentions, this element tends to promote confidence about their resources and ability to continue an entrepreneurial career. As a result, while an entrepreneurial career path is conceivable, it is not always desirable (Zellweger, Sieger & Halter, 2011).

As a result, students who have entrepreneurial experience in the family environment believe that they already have entrepreneurial competencies acquired from home, making educational experiences in university and high school less successful. I believe this suggests that the education system helps them less to develop their sense of initiative, better comprehend the role of entrepreneurs in society, and obtain the essential experience to run a business, or inspire their enthusiasm in being entrepreneurs.

According to Douglas, Singh, & Zvenyika (2017), larger families will have a drive to engage in farming activities in order to generate adequate food for the family, hence all family members will be favorable about agricultural output. Members of a larger family are more likely to have a good attitude toward farming due to the higher reliance on the family farm for food production. Furthermore, Saliu, Onuche, & Abubakar (2016) suggest that the size of the household may alter the source of income and/or family labor, because someone who chooses farming as a vocation may have friends and family to encourage them. However, Umarani (2002) discovered that the association between dairywomen's family size and their technical needs in dairy operations was unimportant. According to Anitha (2004), farmwomen's family size has no clear relationship with their entrepreneurial conduct. According to studies, family size can influence the decision to establish an agribusiness, particularly farming, however this influence may be less significant in females than in males.

2.4 Students attitude and stereotypic views towards agriculture entrepreneurship

Understanding the surroundings that surround the students studying agriculture is critical to appropriately gauging their perspectives. Attitudes are important in many disciplines. According to Hiscock *et al.* (2004), students who are predisposed to entrepreneurship have a more positive attitude on entrepreneurship as a career option and are more likely to engage in entrepreneurial activities. Wu & Wu (2008) observed that a positive personal outlook towards entrepreneurship is a strong starting point for promoting entrepreneurial behavior, regardless of the educational context of the students. These studies suggest that a positive attitude towards entrepreneurship plays an important part in decision to engage in entrepreneurship.

Leonidas *et al*. (2013) observed that the entrepreneurial intent of agricultural students is closely and positively related to entrepreneurial attitudes. Movahedi & Fathi (2011) showed that 64% of the target agricultural students committed to entrepreneurship through a positive attitude, 23% through a favorable attitude, and eventually 12% of the students disagreed with entrepreneurship through a negative attitude.

Shiri *et al*. (2013) found that attitudes towards entrepreneurship among agriculture students have a favorable and important impact on entrepreneurial motives. Kavitha (2014) showed a strong relationship between entrepreneurship mindset and incentives for entrepreneurship and a lower relationship between awareness of sources of assistance and entrepreneurial goals. Exposure of students to role models in their fields contributes to a change in attitude towards and a motivation to follow their field of study as entrepreneurs.

Nishantha (2009) associated several personality and personal socio-demographic factors with entrepreneurial attitude of business management undergraduates and found that students with high entrepreneurial attitude tended to be male rather than female. The family background , previous self-employment experience, desire for success, locus of influence and innovative thought had slightly contributed for forming positive attitude toward entrepreneurship and also their significant

influences in the home, culture, education and economic climate. Gurol & Atsan (2006) suggested that cultural, social and political uncertainty in Sri Lanka prompted individuals to choose wage-earning employment in the public or private sector rather than operate their own businesses. Lack of appropriate opportunities for entrepreneurship and lack of appropriate entrepreneurship education stall the growth of any entrepreneurial dream.

Birdthistle (2007) highlighted extroversion, competence, empathy, mental maturity, and community of respondents as attributes that can be connected with entrepreneurial students in his research. According to Othman & Ishak (2009), attitude is a significant predictor of an individual's success in entrepreneurship. This was reinforced by Chen *et al.* (2011), who said that students' attitudes toward entrepreneurship were influenced by how they saw their surroundings and personal traits, which implicitly influenced the entrepreneurship mindset. According to the studies, individuals' attitudes are influenced by their backgrounds, and attitudes can even effect an individual's success in entrepreneurship.

Gibb (1987) and Bosma *et al*. (2008) found that interaction with effective businessmen and powerful social networks (family, friends) were influences that affected the understanding of their own capabilities. Even though most people are pulled into entrepreneurial activity because of recognition of opportunities, others are pushed into entrepreneurship because they have no other means of living. Panda (2002) observed that the entrepreneur's perception of risk namely, the functional risk and business risk, it makes an attempt to learn about the hindrances encountered by the entrepreneur.

Agriculture students and graduates, are in a better position to start an agribusiness because they understand how diversified agriculture is and how rich it is in opportunities and potential. According to Tolamo (2014), farming and agriculture are referred to as "a way of life," yet the two concepts are not the same. Agriculture is a profession with many different occupations. Farming is the action of providing food and other services. According to Richard (2009), youth associate agriculture with farming but do not associate it with technological and/or research-intensive aspects of agriculture. Instead, farming is viewed as a hard, physically demanding, and

exhausting activity due to equipment breakdown, environmental fluctuations, and price fluctuations. The findings revealed that the youth did not talk about biology, science, innovation, financial management, or international commodities markets. According to Schwarz *et al.* (2009), a favorable assessment of university initiatives targeted at supporting entrepreneurship could lead to a greater desire to establish a firm in the future. Only the academic setting appears to be a predictor of purpose, according to the researchers.

According to Goal *et al.* (2007), entrepreneurship is appreciated, gratifying, and a sought job among Indian and Chinese youth who want to contribute to the region's prosperity. However, according to Ranasinghe (2005), the art of subsistence agriculture is no longer enticing, lucrative, or respectable to today's middle-class youngsters. According to Holz-Clause & Jost (1995), while some youngsters expressed a vague sense of gratitude to farmers for growing food, the majority just showed indifference and lack of interest, eventually leading to scorn or at the very least apathy for agricultural professions. When asked to discuss the unpleasant things done by farmers, the youth expressed concern about soil degradation, removing rain forests, cattle belching releasing methane gas, and farmers not taking good care of their livestock. According to the youth interviewed in his study, farmers did all of these things because they were hungry and needed to make a living. I believe that such issues in the industry should be addressed in order to make the sector more appealing to young people. While some of these issues already have solutions, most young people are unaware of them due to a lack of information, which is why information dissemination is critical in helping to shape their attitudes.

2.5 Role of media in promoting agricultural entrepreneurship

The media, in all of its forms, plays a critical role in shaping adolescent perspectives and fostering agricultural entrepreneurship. The drawback, according to Tolamo (2014), is that the media continues to disregard South African agricultural sciences. Tolamo cites the April 2000 Supplement, which expressed a legitimate worry about agricultural publications. All issues are prioritized in the learning press, City Press, and Sunday Newspapers, with the exception of agriculture. All science disciplines are covered in the SABC 3 TV instructional programs, with the exception of

agriculture. Agricultural programming were previously catered for on SABC 2's Ulimo / Living Land and Agri News programs. The contents of the program were also printed 13 times in the Sowetan newspaper. Most kids nowadays are tech-savvy and have access to media platforms such as televisions, social media, radios, newspapers, and many more. These platforms should be used to encourage youth to participate in agribusiness and to spread information about agricultural prospects.

People's entrepreneurial instincts can be sparked by hearing success tales from young people who have successfully engaged in agri-entrepreneurship. This will undoubtedly pique the curiosity of the youth. Aleke *et al.* (2011), while describing the argument for the use of any social network as an inducement of agri-entrepreneurship and agricultural social capital development, stated that any interaction networks can provide benefit to both individual members and social groups.

Various social media tools such as Facebook, Twitter, YouTube, LinkedIn, WhatsApp, and others, according to Balkrishna & Deshmukh (2017), are becoming more important ways of sharing information on agricultural produce and agricultural marketing. In today's world, the usage of social media in agriculture marketing is fast growing. Farmers are being provided with enhanced services by a number of service providers. Users can communicate directly with customers, service providers, and information sharing centers using social media. Farmers are using social media to increase their production at each stage, and because it allows them to connect with other farmers, agribusinesses, and agri experts over long distances, they are also using it to share harvesting, post-harvesting, agricultural produce promotion, market information, and farmer problems if they are related to their known areas (Sampson & Osborn, 2015).

According to Roberts & Piller (2016), social media is not the same as traditional media. To share information, users of social media create their own groups, pages, communities, and blogs. More agribusinesses are turning to the Internet for information, advertising, and communication with their clients and colleagues these days. For individuals looking to start or expand their firm, agribusinesses should have an online presence (Seretakis *et al.,* 2010).

People today have access to more information than ever before. As a result, it became clear that a relevant and timely market information package offered via low-cost ICTs can boost a farmer's competitiveness (Muktar, Mukhtar & Ahungwa, 2015). This will result in a higher income, better living conditions, and, eventually, the farmer's future security, allowing him to maintain his good living conditions. Lack of public knowledge, enlightenment, and access to financing, among other factors, are to blame for the disenchantment of millennials with agriculture. As a result, adequate public education is recommended in order to change the public's negative impression of agriculture and promote genuine enthusiasm (Adekunle *et al.,* 2009). In this context, Nnadi *et al.* (2012) underline that providing a means for small farmers to access, learn about, and contribute to the global agribusiness information network is not only beneficial, but critically necessary. These studies suggest that the media has a huge potential to affect young people's perceptions toward agriculture, particularly agribusiness.

A good source of information through the media would not only help farmers become more productive, but it will also cut off the exploitative activities of middlemen in the marketing of agricultural output, who are eating up the farmers' sweat. As a result, the farmer is deprived of the fruits of his effort while also fueling his economic backwardness. Lack of agricultural information has been shown to have a negative impact on farmer productivity, and a lack of market information has been shown to be a major barrier to market access for small-holder families, significantly increasing transaction costs and reducing market efficiency (Muktar, Mukhtar, & Ahungwa, 2015).

2.6 Perceptions about agricultural curriculum in promoting agri-entrepreneurship

According to Daniel & Irene (2017), entrepreneurship is an important part of agricultural growth and is gaining popularity, particularly in developing countries. However, until recently, entrepreneurship was not a topic included in agricultural higher education programs. This was also reinforced by Parcell & Sykuta (2005), who noted that agri-entrepreneurship is gaining popularity at a rapid rate. While rural people feel that entrepreneurship can lead to economic prosperity, little is being

done in agricultural colleges to prepare students to be entrepreneurs. These studies show that entrepreneurship in the agriculture curricula is not given much attention even though even though it has great potential to improve economies.

Daniel & Irene (2017), further elaborates that entrepreneurship, particularly rural entrepreneurship, is rapidly being acknowledged as a critical ingredient for economic development and poverty alleviation around the world, but notably in developing countries. In order to improve rural economic and social development, it is important to transition agricultural producers and graduates into entrepreneurs.

However, doing so necessitates the development of capacity. Unfortunately, most agricultural higher education programs are still very theoretical, disciplinary, and focused on the technical and scientific components of production, failing to provide graduates with the skills they need to become entrepreneurs and support rural entrepreneurship (Jordaan *et al.,* 2014; Mabaya *et al.,* 2014; Sherrard, 2014).

The relationship between agribusiness and entrepreneurship and agricultural education is a hot topic, especially in developing countries. In the case of Africa, it appears fair to argue that only a few colleges have implemented efficient programs to provide agricultural students with the information, skills, and competencies necessary for careers as entrepreneurs. According to Daniel & Irene (2017), the single most significant aspect in building an effective program is a common belief among university decision makers and academics that graduating agricultural professionals with a firm foundation as entrepreneurs is the most crucial factor.

It seems unlikely that the focus on agricultural entrepreneurship will have a substantial impact if it is merely another course. Graduating future leaders who have the abilities to be successful entrepreneurs while also having the ambition to pursue such a path is no easy undertaking. It necessitates a mental shift among administrators and faculty members. Admissions criteria may need to be changed, as well as faculty reward structures and promotion requirements, as well as courses. (Sim, 2015).

2.7 Agricultural graduate's needs in the promotion of entrepreneurship

According to IFAD (2010), financial service providers (FSPs) play a critical role in encouraging agricultural graduates to start their own businesses. Formal banking systems (commercial and development banks), semi-formal banking systems, and informal banking networks not technically recognized at the national level are all examples of FSPs (e.g. self-help groups, village savings and loan associations, moneylenders and traders). Young individuals continue to make up a smaller part of the entire structured FSP clientele than their aggregate demographic profile would suggest, according to data from numerous top FSPs. Given the particular characteristics of agriculture, delivering financial services in rural areas is usually considered high risk: reliance on natural resources and seasonality; lengthy growth cycles; and exposure to unpredictable weather.

While financial resources have become more accessible to impoverished farmers, more needs to be done to improve the quality of agricultural and rural entrepreneurial services for young people (Dalla Valle, 2012). Given the fact that savings remain very significant to youth for building up financial and insurance reserves (MIJARC / IFAD / FAO, 2012), many FSPs in both developed and developing countries offer minimal youth savings or insurance programs, focusing mostly on credit. Certain countries' laws and regulations frequently ban residents under the age of 18 from utilizing certain financial goods or services (UNCDF, 2012). Furthermore, few, if any, financial products are specifically developed for women young people (MIJARC / IFAD / FAO, 2012).

According to data, while most microfinance banks serve young adults beyond the age of 18, they are rarely recognized as a distinct consumer group, and few products are developed to meet their unique needs (Shrader *et al.,* 2006). In reality, a growing global debate calls for a reform of microfinance institution principles, as many microfinance institutions that provide loans to adolescents continue to charge exorbitant interest rates (UNCDF, 2012). The common thread running through these research is that it is difficult or impossible for kids to obtain finance from established financial systems, and even if they can, it is not tailored to their individual

requirements.

Many FSPs are requesting loan guarantees from youth, such as legal land titles, permanent jobs, personal guarantors, unity party guarantees, or more informal guarantees (cars, furniture, etc.), all of which are assets that young typically lack. Youth are regarded as a high-risk group (Atkinson & Messy, 2012) because of their limited financial competence, which is largely attributable to a lack of experience. Despite widespread recognition of the importance of long-term finance, there are few novel ways to risk management when lending to young people.

Market access for farmers implies the ability to acquire farm inputs and services, and the ability to supply buyers with agricultural products (IFAD, 2010). Markets give income generation opportunities, contributing to poverty reduction and hunger in developing countries. Markets also push production in terms of quantity and price to satisfy market demand (van Schalkwyk *et al*., 2012).

To ensure that more and more youth participate in agriculture and agribusiness, I believe that long-term market access is essential. Given that rural youth are the agricultural sector's future (MIJARC / IFAD / FAO, 2012), improving production, raising incomes, and reducing poverty and hunger in the next years will require their access to markets. However, even beyond the limits experienced by smallholder farmers in general, particularly in poor countries, young people confront a number of hurdles when seeking to access markets.

Furthermore, Filmer & Fox (2014) acknowledge that, prior to gaining market access, young rural people must overcome various obstacles, including issues obtaining land, agricultural inputs, and banking services. Many young people lack market knowledge and comprehension, as well as industry, management, and entrepreneurship skills, and, like many other smallholder farmers, pricing information. Most agricultural students and graduates, in my opinion, have assessed or have already gained these competencies, with the exception of entrepreneurship.

The need for low-cost, packaged foods, as well as the worldwide growth of supermarkets, according to FAO (2014), has repercussions for the global food

distribution system in terms of rising globalization, as it modifies sourcing methods and imposes new quality and health requirements. Markets are always accessible and homogenized to global norms, according to FAO (2014), resulting in increased competition due to enhanced rural-urban connectivity and faster communication, as well as fewer trade restrictions.

Bienabe & Vermeulen (2007), on the other hand, believe that the new procurement procedures favor big, consistent supply (aimed at supermarkets) over small-scale manufacturers, who are typically young people, particularly in developing countries. In addition, young smallholder farmers must uphold quality standards, pay compliance expenses, and invest in equipment, services, and a more professional workforce. In theory, small, young agricultural producers in developing countries may sell their products to a variety of markets, including local (rural), rapidly urbanizing, regional, and worldwide markets. To sell more product at greater prices, they need better access to national, global, and international marketplaces. According to the research, markets are more accessible than they were before the competition, and entrance criteria do not benefit small-scale farmers, who make up the bulk of young farmers. They may find it challenging to maintain the essential criteria, such as quantity, price, and product range. Due to simpler logistics, smaller scale, and less rivalry than larger domestic and foreign markets, local markets have traditionally been the most accessible (Edwards, 2014). He goes on to argue that as distribution channels shift from tiny local markets to supermarkets, domestic and local markets are starting to mimic international norms, and the market access difficulties that small, young manufacturers face are no longer restricted to exports.

A small number of market intermediaries represent a large number of producers and customers in a typical rural market organization (Shepherd, 2005). These intermediaries can affect market policies due to their market expertise. Longer distribution chains with several middlemen represent a greater danger to young farmers. Young players are more inclined to sell their products through large industry players, who take the lion's share of the profits or offer financing for high-interest-rate inputs. The unequal transfer of power is another explanation for young people's lack of demand and price awareness (van Schalkwyk *et al.,* 2012). According to MIJARC/IFAD/FAO (2012), it might be because they are still not adequately

coordinated. More structure might help with economies of scale, risk management, service cost reductions, and capital availability (Kruijssen, Keiizer & Giuliani, 2009).

Cultural traditions that limit young rural women's freedom of movement in many cultures may make it difficult for them to access markets in emerging countries (USAID, 2005). Given the above, it is apparent that current market dynamics are not in favour of young farmers. Growth of the rural economy and infrastructure, on the other hand, may contribute to youth employment opportunities in non-farm operations (brokers, intermediaries, business intelligence officers, and so on) and positions that do not require access to land or other resources but do require different types of skills and expertise where youth can have a competitive advantage. Young farmers are typically likely to be interested in all linkages in the supply chain; they are business-oriented and are searching for new ways to make a living as part of a social network not just in agriculture.

2.8 Access to farming land for the promotion of farming enterprises.

Land is particularly essential for young people who want to work in agriculture or rural regions. Land access is not just the most crucial prerequisite for beginning a farm; it can be used to create jobs, support agribusinesses, and generate revenue. According to youth involved in the joint MIJARC / IFAD / FAO project (MIJARC / IFAD / FAO, 2012), land serves as collateral and leverage for obtaining credit, marks the identity of young people, elevates their status, and encourages participation in collective decision-making bodies and producer organizations.

Youth from all over the world regard secure land access as critical for entering the farming industry, yet they face larger obstacles than adults. Furthermore, young women have greater challenges than young males in obtaining land. Women account for a tiny proportion of all farmers, according to the FAO (2011) their land holdings are generally smaller than men's. While the difficulties that young people encounter are under-reported and vary by region, country, there are certain universal issues.

The majority of respondents (86%) do not own property and instead cultivate on their

parents' land until they marry as stated by Douglas, Singh, & Zvenyika (2017). The majority, on the other hand, are not allowed to establish their own money-making ventures. It has a detrimental influence on the involvement and attitudes of agricultural young people. National land policy, whether individually or collectively, must be flexible in order to encourage youngsters to buy agricultural land. I feel that land is expensive, and that most young people cannot afford it due to a lack of financial means and the fact that many lenders neglect them (Douglas, Singh, & Zvenyika, 2017).

According to (MIJARC / IFAD / FAO, 2012), young males inheritance is the major way of getting access to land. Despite the fact that life expectancy has grown in all nations, land transfer continues to occur later in life, and young people must wait several years, if at all, to obtain their part of the family land. In developed nations, intervivos land transfers are unusual since property ownership is considered an adult luxury. On the one hand, it is assumed that young people will not acquire land until they are adults. Many young individuals, on the other hand, put off marriage since they do not own property. After all, in many areas of South America and the Mediterranean, it is taboo for young people to get family land while their parents are still living, and in many parts of Africa, it is prohibited for young people to obtain family land while their parents are still alive (UN-HABITAT, 2011).

Furthermore, according to FAO (2011), many teenagers only have subsidiary ownership rights and work for little or no pay on the family farm while they wait for their inheritance. Women do not inherit land in many developed nations, therefore they must rely on a male relative to gain consumer rights. Several nations have altered their official legal systems to provide women equal rights to property and inheritance, but putting these formal rules into reality can be difficult, especially if customary law prohibits women from owning land.

Changing agricultural lands from one generation to the next, according to Khapayi & Celliers (2016), is a very difficult procedure that requires moving land, sector, and other properties to preserve and possess in high and some middle-income nations. Personal, political, farm management, and tax experience are frequently used by the parties involved to ensure that they avoid unnecessary transition taxes and use a

transition structure that is appropriate for their circumstances (e.g. trust, family limited partnership). The interests of two groups should be considered: those of the younger generation, who require financial training and help to take over the farm/business, and those of the older generation, who require financial stability while passing over agricultural assets.

As White (2012) points out, land-management regimes can evolve through time. When land used to be the property of the nation, family, or tribe, it was increasingly personalized in terms of ownership and management. Poverty forces parents in developing nations to sell their land to outsiders, preventing their children from inheriting it. Young people are disproportionately affected by large-scale property agreements because they are typically excluded from talks that might restrict access to land for themselves and future generations. Land has been severely split in sparsely populated nations like Rwanda, and laws have been established banning further land division. In actuality, this implies that the family's oldest son is the family's only heir and decision-maker (IFAD, 2010). Increased soil loss (FAO, 2011) also restricts the quantity of arable land accessible to young people.

It is unreasonable to expect young people to buy land with their own money, given high youth unemployment rates, low earnings for most rural youth, and expensive land costs. Young women in underdeveloped countries confront an even greater problem in getting the cash required to own farms, as they typically undertake unpaid household labor or rely entirely on meager earnings (FAO, 2011).

Furthermore, land-purchase loans for rural youngsters are difficult to come by. Land leases and rents are now being explored in South Africa to increase young people's exposure to land. Furthermore, young people lack knowledge of contemporary land tenure systems in their region, which is understandable given that such institutions can be a complex web of contradictory policies, laws, conventions, and practices. Corruption and land traffickers' unlawful actions have a negative impact on youth since they are unaware of the processes involved in purchasing, registering, and paying taxes (UN-HABITAT, 2011).

Land rights for youth are also lacking from law and legal documents, and if they do

exist, there are no clear enforcement mechanisms in place to enforce them. Land-related rules and regulations pique the curiosity of young people, who believe that these systems are incompatible with their needs. The FAO's Voluntary Guidelines on Land Tenure respond to this by stating that "effective involvement of all people, men, women, and youth in decisions on their tenure systems should be encouraged through their local or traditional institutions" (FAO, 2012). This, in my opinion, emphasizes the necessity of children coming together and establishing institutions in order to have a voice in land policy that affects them.

2.9 Promoting self-employment in agribusiness among agricultural students

Crawford (1997) suggests that a viable agricultural produce marketing strategy be established. The growth of ready-to-market and agricultural commodities distribution facilities, which will create opportunities for agri-entrepreneurs, will motivate more young people to undertake farming. Agriculture must be made more appealing to the youth through media campaigns that reframe erroneous agricultural beliefs and portray agriculture as a successful industry. A review of the country's educational curriculum for white-collar employment should be carried out. The initiative will encourage self-assurance and self-employment. Agricultural entrepreneurship should be thoroughly integrated into the educational system from the start.

Mugambiwa & Tirivangasi (2017) also said that youth access to land will be improved through a number of efforts. The measures to be taken will differ based on the difficulties that are prevalent in a specific region, and therefore will differ across developed and emerging countries.

Adenle, Azadi & Manning (2018) suggested that lobbying for the enforcement of current legislation and policies ensuring access to land for young people can help assist youth to participate in agriculture. Movements for empowerment pressured traditional local officials, such as village head and land head, to give some of the land to young people. Education and resulting land allocation to youth.

Provision of land acquisition loans, particularly to young people. To guarantee that youngsters can repay the debt, they must be sufficiently motivated and educated.

This is true for both rich and developing countries, as young entrepreneurs frequently face credit constraints. Leasing to provide young people access to the land. Before they can get loans to buy land for their enterprises, youth need to be given guidance and training on how to write good business plans (Hanstad, Mitchell, & Prosterman, 2009).

Goal *et al.* (2007) argued that efficient policy actions focused at fixing particular problems in the support system in a given area might reduce the risk associated with entrepreneurship. This will need all-around funding from a variety of players, including the government, planning institutions, supportive communities, and business people.

According to IFAD (2010), there is a need to encourage youth and elderly people to talk about land transfer. Because land issues are frequently complex and necessitate changes in community attitude, custom, and connections between young and old, engaging all members of the community in the dialogue process and breaking down generational barriers is critical. One option, where government resources allow, is to provide opportunities for older community leaders to transfer some of their land to younger generations. It is also necessary to improve youth knowledge of land tenure structures and the relative judicial implications of all types of land transactions.

Croppenstedt, Goldstein, & Rosas (2013) believe that resources (such as training) and inputs are critical for maximizing farm output and improving the processing and sale of agricultural goods. Youth are aided not just in getting land, but also in making that property more competitive and income-generating. Institutions in rural areas play an important role.

Maryam (2005) emphasized the need of exposing university students to entrepreneurial thinking. It's also worth remembering that education as a tool for developing entrepreneurs and entrepreneurial behaviors will create entrepreneurs if it inspires and cultivates the proper entrepreneurial route. Students should be given the necessary skills, information, and concepts to foster a desire for accomplishment, power, competition, and a willingness to take risks.

According to Dhiman *et al.* (2010), students (both male and female) should be given more actual understanding about entrepreneurial growth rather than abstract knowledge. Rather than an optional test, all agricultural students should be required to study entrepreneurial growth in order to better their entrepreneurial careers. It would continue to narrow the gap between male and female entrepreneurs, allowing for greater exploitation of relevant abilities across all human capital on the planet, male or female.

According to Chaudhari (2013), respondents' entrepreneurial motivation is quite low. The majority of the reasons for this predicament are a lack of technical expertise, a fear of taking chances, and a bad character. Certain leadership characteristics must be attempted to be integrated among pupils. The course's material must be organized in such a way that students may gain technical expertise. On the other side, educational institutions must arrange for a guest lecture by a local entrepreneur for their students. It has been recommended that these talks be scheduled in order to assist students in overcoming the obstacles they experience in their attempts to become entrepreneurs.

Sarasiab *et al.* (2013) suggested that the following ideas might increase students' enthusiasm for entrepreneurial activities based on the study's findings: entrepreneurial advice from the legal system: The most significant impediments to entrepreneurial development are segregation and rents, as well as a lack of essential investment in educating new entrepreneurs to enter the world of labor and production, and payment at work. Students are encouraged both internally and externally, with enough chances to motivate them and their ideas of the benefits of being an entrepreneur, cultivating a favorable understanding of the potential of entrepreneurial students and graduates of higher education institutions and reinforcing their minds in the area of entrepreneurship education, promoting entrepreneurship.

Shiri *et al.* (2013) proposed that the agricultural higher education system develop a positive attitude toward student entrepreneurship by taking into account values and entrepreneurship in society through training and research programs, as training is initially important to build a positive attitude toward a specific subject. They also

recommended organizing university-based education courses and encouraging agricultural students to participate.

Pouratashi (2014) proposes improving graduates' entrepreneurship aspirations, increasing motivators, and significantly lowering barriers. Given the influence on entrepreneurial goals, we infer that as entrepreneurship awareness and resources grow, students are more likely to start their own firm. Agriculture institutions should also provide entrepreneurial courses to all graduates, according to the proposal.

Futhermore, Pouratashi (2014) stated that entrepreneurship must be included in agriculture education curriculum. Colleges of agriculture should also give students with knowledge of entrepreneurship, including how to look for and evaluate business possibilities, as well as access to entrepreneurship conferences, in order to improve students' intents toward entrepreneurial activity. It is also suggested that agricultural institutions provide entrepreneurial ideas to students as a beginning point for motivation.

Lack of entrepreneurial zeal, lack of start-up funding, inadequate infrastructure services, lack of self-employment experience, and shifting government policies, according to Chidi (2014), are among the most significant barriers to career choice and entrepreneurship among undergraduates in agribusiness. The government should attempt to empower truly motivated undergraduates in agriculture, put up sufficient infrastructure, and seek to remove corruption in its agribusiness policy administration, among other recommendations based on the findings. University leaders are also asked to assist students on how to develop bankable business ideas in their areas of interest in agriculture. Such agribusiness students should be suggested to the government, as well as other interested individuals and corporations.

According to Moyo (2016), young farmers all around the world need exposure to the business sector. Growth must be enhanced in industrialized nations, resulting in higher wages and a reduction in inequality and food insecurity. Despite this, most industry processes discourage young people from entering the market. To get access to markets and commence development, you'll need cash (for example, land

and banking services). Young individuals, on the other hand, have less access to such services than senior smallholders. Youth-specific programs, initiatives, and schemes, such as start-up financing and contests, might assist them in avoiding these difficulties.

Nicolaides (2011) believes that education and training are necessary for young people to take advantage of marketing possibilities and start their own businesses. Young producers' needs should be addressed through training programs. Young entrepreneurs who had recently graduated from university or completed training courses used their newfound knowledge and abilities to create a company strategy. When asking for financial resources, a particular degree of education may be required. Knowledge and abilities to meet market demands, as well as particular skill development and enhanced confidence. Young farmers are fresh to the market, with limited networks and relationships with customers, limiting their market access.

Modern market intelligence services are now available, and the advancement of information and communication technologies has made marketing and trading easier. Youth are often quick to pick up new technologies and may already be using ICT tools for social networking. As a result, they have a competitive edge in terms of obtaining market data and can overcome the asymmetric power distribution barrier (MIJARC/IFAD/FAO, 2012).

According to Gerster & Zimmermann (2003), the growth of ICT-based market information services allows various actors in the value chain to connect, ICTs can enhance agricultural extension services, and ICT tools are used to sell products to consumers (e.g. through the Internet), all of which have the potential to help young people overcome the challenge of accessing markets. Organizations can provide children with the essential bargaining power to interact with other market participants on an equal footing. When it comes to buying agricultural inputs and selling agricultural output, producer organizations can assist decrease transaction costs and gain economies of scale (Hamilton-Peach & Townsley, 2004). By working together, youth may be able to address transportation and storage difficulties, obtain technology and certificates to meet quality requirements, and achieve the necessary scale to offer the needed number of their products in order to get access to bigger

markets.

Promoting self-employment in agriculture may be aided by ensuring youngsters active involvement in policy processes. All too frequently, their participation is small or non-existent. Seniority is frequently associated with authority, and young people are rarely encouraged or permitted to speak out or voice their thoughts, let alone participate in policymaking processes (Lintelo, 2011). Traditional perceptions about women's fitness for decision-making roles, as well as persistent gender disparities in the home, make involvement of young women in policymaking particularly difficult in many developing nations (Jayachandran, 2015). There is no detail on youth involvement in directly relevant agriculture and rural development policy processes. A joint study by (MIJARC/IFAD/FAO, 2012), found that rural youth are rarely involved in policy formulation for them, and rural youth informants from Africa and Latin America stated.

Despite the fact that several legal documents and regulations, such as the African Youth Charter, expressly declare that youth have the right to participate in policy development, many young women and men are ignorant of their rights. Furthermore, policies frequently fail to represent the diversity of adolescents and tend to focus on non-poor urban guys (Bennell, 2007). Consultations are generally held in metropolitan areas and in the country's official language(s), excluding illiterate, rural, and marginalized young people (Lintelo, 2011).

There is a lack of thorough study on rural youth as a group, resulting in policies that do not address the genuine issues that rural youth confront (IEG, 2013). Similarly, more study is needed to follow the goals of rural adolescents (Leavy & Smith, 2010). Rural adolescents require certain abilities in order to participate actively in government debates, organizations that represent their interests and advocate on their behalf play an essential role. Rural youth are not sufficiently linked and they perceive this lack of unity as a significant cause for their limited influence in policy making.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter will provide the logical process applied to carry out the study which include the methodologies used to describe and analyze the process followed in conducting the research. The objectives of the study are to; (i) describe the socio-economic characteristics of students studying agriculture(ii) analyze the perception of agriculture students towards self-employment in agribusiness (iii) identify type of agribusiness preferred by the students (iv) identify barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum.

This chapter will answer these objectives by explaining the research design used, describing the study area and the population, describing and explaining the sampling size and selection method, explaining process followed in the data collection and methods used, and lastly it will explain the data analysis method used in the study.

3.2 Research design

The study used an online quantitative survey design to collect data on the perceptions held by University of Limpopo agricultural students towards self-employment in agribusiness. The study used a semi-structured questionnaire with open and closed ended questions. The research process is designed with the aim of gathering data with regard to the future solutions for creation of job opportunities for the youth, promoting youth participation in agriculture and creating youth owned Agribusinesses.

The questionnaire was created using the Google forms which is a survey administration software, which allowed collecting data from users through surveys and the collected data was automatically entered into a spreadsheet as illustrated by Lardinois (2017). A link containing the questionnaire was sent online to selected student through their university student emails. The survey questionnaire was posted online from the 01st of September 2020 to the 29th of December 2020. The reason for

opting for the online survey was in response to the COVID 19 pandemic, which made it close to impossible to administer the questionnaire face to face.

The study uses a cognitive approach to entrepreneurship research to explain the relationship between youth agribusiness goals, socioeconomic factors, attitudes, preferred agribusiness, and perceived hurdles and motivators to self-employment. The combination of socio-psychology and organizational management resulted in this method (Daz-Pichardo *et al.,* 2012). It posits that mental processes such as perceptions or attitudes, personality traits, demographic variables, and socioeconomic circumstances impact human behavior.

Using this method, other theories have been produced, one of which is Theory of Career Decision-Making, which has been used to describe the decision-making process that individuals utilize when choosing a career (Mitchell & Krumboltz, 1990). Race, age, education, residential area, household size, family type, and gender are among the socio-demographic characteristics identified by the theory. Individual perceptions, perceptions of economic opportunities, perceived barriers plus motivators, and socio-cultural perceptions are socio-economic characteristics that include parents educational background, occupation, annual income, relative owning a business, access to farming land, years of farming experience, and attitude or perceptions that include individual perceptions, perceptions of economic opportunities, perceived barriers plus motivators, and socio-cultural perceptions (Esters & Bowen, 2005). These characteristics, according to Mitchell & Krumboltz (1990), generate entrepreneurial cognitions, which are knowledge structures that people use to make assessments, judgments, or decisions concerning opportunity evaluation, venture development, and growth.

Theories of Planned Behavior (TPB) (Lián, Santos, & Fernandez, 2011) is another theory. TPB considers the impact of intents and motivations as indicators of how much work each person intends to put in (Esters & Bowen, 2005). The application of the TPB proposed by Ajzen (2006) was also used to guide the theoretical analysis of students' self-employment in agribusiness decision. According to the theory, an individual's purpose or choice is determined by their perception and attitude toward the subject at hand. The individual's impression of the choice's result also influences

their decision-making intention. If a person thinks the consequence of a choice will be favorable, he or she is more inclined to do it, and vice versa.

3.3 The Conceptual Framework of the study

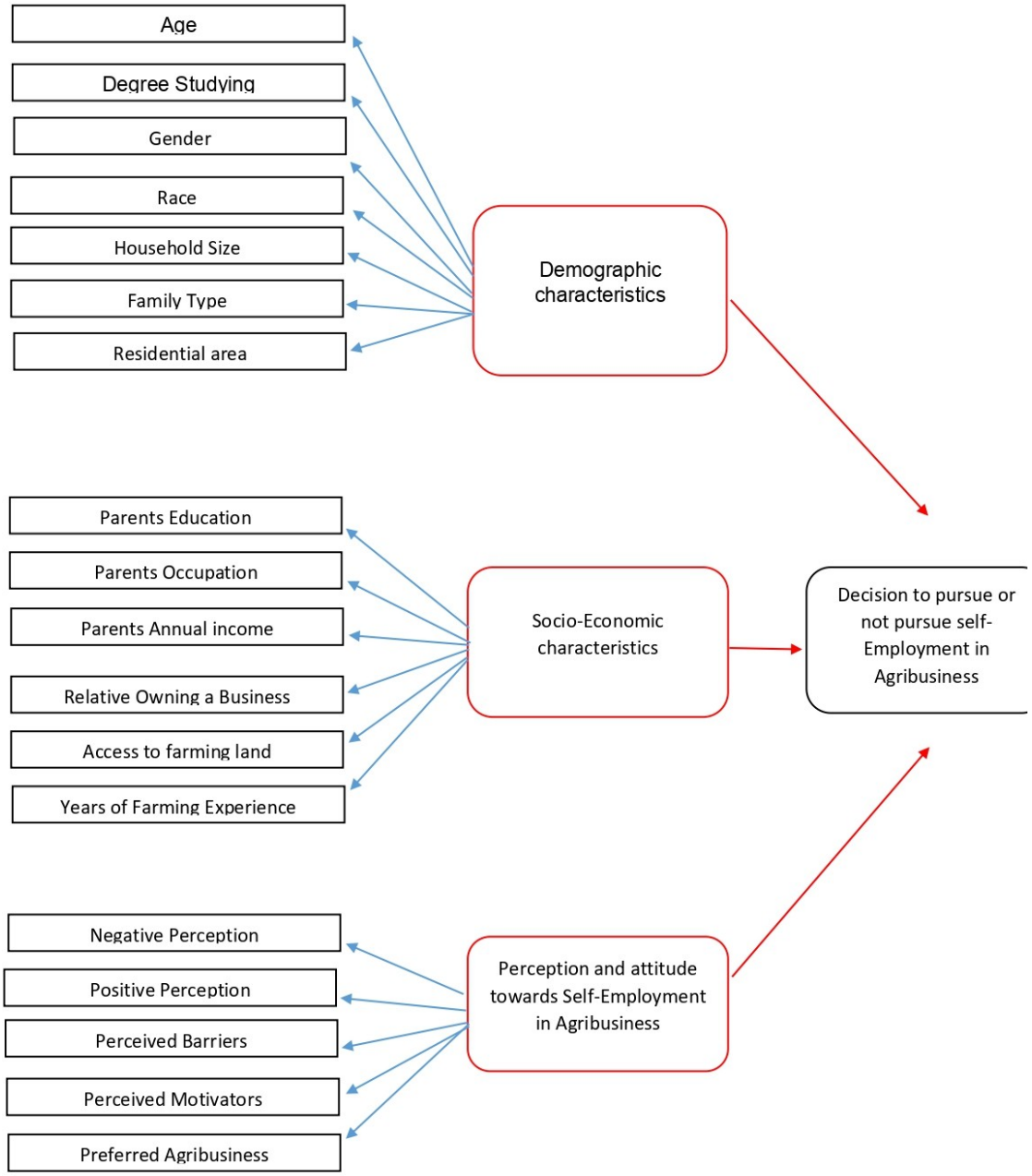


Diagram 1: Conceptual framework

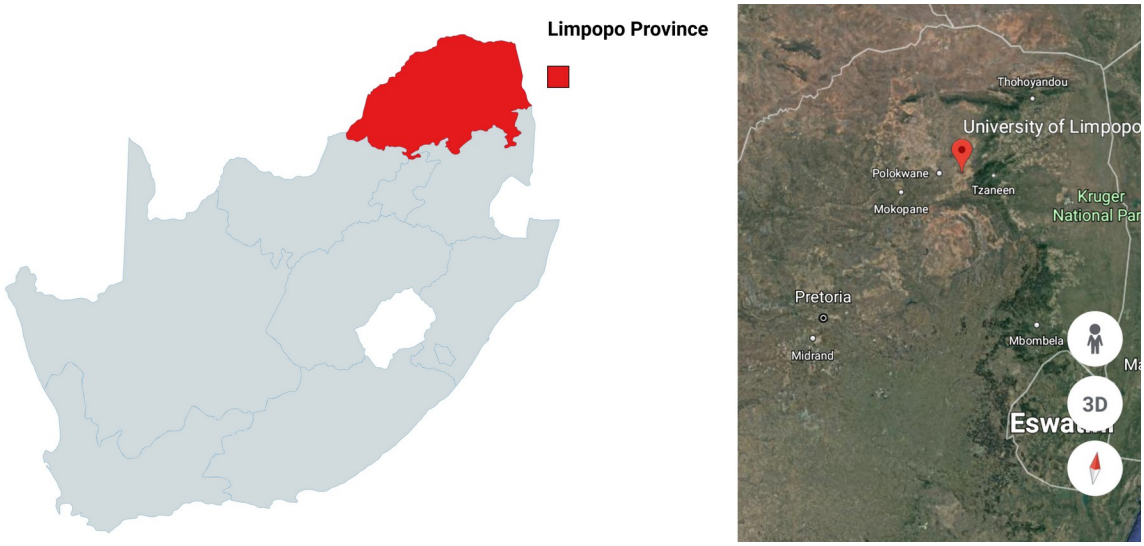
According to Arenius & Minniti, 2005; Pindado & Sánchez, 2017, demographic characteristics such as age, degree studied, gender race, household size, family type, and residential area have a substantial impact on students' perceptions of self-

employment in agriculture. Students' residence environment, whether it is a rural agricultural farming community or an urban area where agricultural economic activities are not dominant, may impact their decision or intention to pursue agribusiness as a self-employment venture. Students who reside in rural farming towns are more likely to have a good attitude about agriculture than students who live in townships and cities (Arenius & Minniti, 2005).

The conceptual framework diagram shows that socio-economic characteristics such as parent's education, occupation, annual income, relative owning a business, access to farming land, and years of farming experience may have an impact on students' perceptions of taking up agriculture as a self-employment venture. Students' perceptions and decisions to start agribusinesses as self-employment ventures are heavily influenced by their socio-economic factors (Pindado & Sánchez, 2017).

Perception, including negative perception, positive perception, perceived barriers, and perceived motivators, plays an essential part in how people make decisions, as shown in the diagram. People who have a positive attitude about agriculture as a self-employment venture are more likely to start agribusinesses as self-employment enterprises than those who have a negative attitude. Students will be hesitant to engage in agribusiness as a self-employment venture if they believe there are too many barriers; however, if there are motivators such as available extension services, land, and capital support for agribusiness, more students will attempt to do so (Lián, Santos, & Fernandez, 2011).

3.4 Study Area



Source: Mapchart.net and Google earth, 2020.

Map 1: Location of the University of Limpopo in Limpopo, South Africa

The research was carried out at the University of Limpopo's School of Agricultural and Environmental Science over the internet. The University is located at 23.8888* S, 29.738* E, in the Mankweng region of the Capricorn District & Polokwane Local Municipality in the Limpopo Province, some 40 kilometers east of Polokwane.

According to Hall (2015), the University of Limpopo was founded on January 1, 2005, when the University of the North and the Medical University of South Africa (MEDUNSA) merged to become the University of Limpopo. Turfloop and MEDUNSA are the university's Turfloop and MEDUNSA campuses, respectively.

The University recently purchased the Syferkuil Experimental Farm (SEF), which is located 9 kilometers north of the main campus. The farm assists in providing students with practical training as well as research facilities for staff and students.

The institution has collaborations that allow it to remain relevant and competitive on a worldwide scale, such as ZZ2 Farms in Westfalia and Cornell State University in the United States. Several Belgian universities are collaborating in the VLIR (Flemish Interuniversity Council) initiative, while the University of Wageningen is collaborating

in the NUFFIC (Netherlands Organization for International Cooperation in Higher Education) project.; Land Bank of Southern Africa; Provincial and National Departments of Agriculture; and Local & Regional Universities; International Centre for Development Oriented Research in Agriculture (ICRA); various Agricultural Research Council Institutes (ARC); Land Bank of Southern Africa; Provincial and National Departments of Agriculture; and Local and Regional Universities. These partnerships and collaborations help to shape and enhance the courses of the School of Agricultural and Environmental Sciences.

3.5 Population

Limpopo has a population of 5,8 million people in 2016, according to STATS SA (2016), making it the country's fifth most populous province. The Capricorn district has a total population of 1 154 673 people, with females accounting for (53.21%) (671 220) and males accounting for (46.79%) (590 242). The University of Limpopo is situated in the suburbs of Mankweng, a significant town in the province of Limpopo (population range of 10,000-49,999 inhabitants). The university's enrolment ranges from 15,000 to 19,999 students.

In 2020 at the undergraduate level, the School of Agricultural and Environmental Sciences had 978 registered students pursuing agriculture-related degrees. The SAES had a population of 194 students performing their finals throughout the study period, hence the sample size was 71 students.

3.6 Sampling size and selection method

The study focused on students in the School of Agricultural and Environmental Sciences doing final year undergraduate which were 194 students in total. Students are from the two Departments which are Department of Agricultural Economics and Animal production and the Department of Plant production, Soil Science and remote sensing for the academic year 2020/2021, from both the Bachelor of Agricultural management and Bachelor of Science in Agriculture with its various disciplines. A stratified random sampling procedure was used to calculate how many students will be selected from each degree to represent the sample size one hundred and thirty

(130) respondents for the study.

Degree qualifications was used as strata and the stratified sample formula was used to determine the proportion of students to be sample from each degree qualification which resulted in Bachelor of Science Agriculture (BSc. Agric.) in Agricultural Economics with 27 students to be sampled, BSc. Agric. In Animal Production 34 respondents, BSc. Agric. in Plant Production 34 respondents, BSc. Agric. In Soil Science 16 respondents and Bachelor in Agricultural Management with 19 respondents. Then students were selected randomly using their university email addresses. Due to constrains associated with online surveys/questionnaires like the lack of mobile data, lack of proper devices and network issues only seventy-one (71) students out of the aimed one hundred and thirty (130) managed to participate in the study. Table 1 below shows the number of students from each degree qualification who participated.

Table 1: Sample number of the respondents

	Population No:	Sample No:
1. BSc. Agricultural Economics	40	15
2. BSc. Animal Production	50	25
3. BAgric.Admin (Bachelor in Agricultural Management)	29	12
4. BSc. Plant Production	51	13
5. BSc. Soil Science	24	6
TOTAL	194	71

3.7 Data collection method

3.7.1. The instrumentation process

A semi-structured questionnaire was used as a data collection tool. The semi-structured questionnaire was short and asked participants for specific answers by choosing one alternative. It also captured demographic information such as gender, age, education, land size, degree being studied, race, family type, parent's educational background, type of residence area, parent's occupation, farming experience, relative owning a business. It also had questions which permitted participants to provide more flexible answers in an open-ended manner, which allowed participants to express their responses in a more detailed way. A Likert scale was used to capture data with regard to the perceptions held by university of Limpopo agricultural students towards self-employment in agribusiness. A total of 24 statements were used in a Likert scale to capture data on perceptions. From this number a total of 14 Statements were negative and 10 were positive in measuring perception.

The questionnaire was prepared in English language, and was designed in a manner that is conducive for self-administration, this was influenced by the current pandemic (COVID-19) facing the country, which makes it hard or close to impossible to collect data through face to face interviews. Secondary data was collected through journals, academic books, government legislations, conferences papers and presentations and public lectures.

3.7.2. Pilot testing

The questionnaire was piloted with 10 agriculture students at the University of Limpopo from all levels randomly selected. The questionnaire was adjusted as suggested and some question were rephrased.

3.8 Data analysis

3.8.1 Data organization and statistical procedures

The first objective of the study was to describe the socio-economic characteristics of students studying agriculture. In answering this objective the Statistical Package for the Social Sciences (SPSS) was used for entering and organizing data collected and descriptive statistics which comprises of frequencies and percentages will be used to determine the socio-economic status of the students.

The second objective of the study was to analyze the perception of agriculture students towards self-employment in agribusiness. In answering this objective, the perception index approach was employed. The perception index formula is indicated as;

$ni=(\frac{\Sigma i}{n})$ (3.1)

ni Connotes index computed for a particular statement under a main heading
i Connotes the figure assign to a particular scale (e.g.1 = strongly disagree)
n Connotes number of respondents
Equation 3.2 is then generated from equation 3.1
$Mi=(\ \Sigma\ )$ (3.2)
Mi Connotes the index computed for a main heading (e.g. perception towards self-employment in agriculture)
C Connotes the number of sub-headings under the main headings
($n1+n2+\cdots\ldots\ldots..+ni$) Connotes the summation of the indices computed for the individual statements. The overall perception index was computed from equation 3.2. It is presented in eqn.3.3

$Q=(\ \frac{\Sigma M\,1+M\,2+\cdots\ldots.+Mi}{k})$ (3.3)

Q Connotes the overall perception index
K Connotes the number of the main headings
($M1+M2+\cdots\ldots.+Mi$) connotes the summation of the main headings

The Four-point Likert scale was used to analyze the information from students regarding their perception about self-employment in agribusinesses. Some statements adapted from literature review regarding perception indicators of self-

employment in agribusinesses were presented to the student to rank on the scale of 0 to 3 (0=strongly disagree,1=disagree, 2=agree, 3= strongly agree). In this case the average score for any possible responded statement have a mean score value = 1.5. This implies that a mean score above and greater than 1.5 indicate a positive perception or agreement and a mean score less than 1.5 indicates a negative perception or disagreement of a student to the respective statement in question.

The third objective of the study was to identify type of agribusiness preferred by the students. In answering this objective a three-point Likert scale was employed to identify the most preferred and the least preferred agribusiness enterprise. Descriptive statistics such as mean was used to analyze the most preferred agribusiness enterprise among agricultural students.

The final objective of the study was to identify barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum. In answering this objective a table was computed to gain a better understanding and interpretation of the score of the respondents through a likelihood ratio Chi-squared test method. SPSS was used to tabulate the data, generate descriptive statistics and perform the Chi-Square analysis for association between the barriers and motivators regarding self-employment in agribusiness and degree types (Coakes & Steed, 2009).

3.9 Ethical considerations

Confidentiality and participants rights for anonymity

During the data collection procedure, respondents were questioned about maintaining confidentiality over information obtained through the surveys. Participants were informed about the advantages of participating, and assurances of secrecy and anonymity were offered through keeping personal contact with the goal of fostering mutual trust with participants.

Voluntary participation

Respondents were told that participation in the study was completely voluntary. All instructions were also included in the questionnaire, which was explained to each intended participant.

Participants' consent

Participants were informed of their consent before surveys were sent out and interviews were done.

3.10 Limitations to the study

The limitations of the study include the fact that, it looks only at final year agriculture undergraduates' students so it might not necessary represent the whole agricultural student's population of the University of Limpopo. The sample results may be different from the entire population results, due to COVID-19 the study was conducted online which meant that some of the students could not participate due to data and network constrains. The tools employed for data analysis have their own weaknesses which might influence the outcomes, although this was highly controlled. Furthermore, some of the information provided by respondents might not be very accurate because some respondents had not made any sound decisions on the career of their choice after graduation.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents and discuss the results of the study. It specifically presents the demographic characteristics of students, parents background, parents occupation, relative owning a business, parent's annual income, access to farming land/ own some land, farming experience, perception of agriculture students towards self-employment in agribusiness, type of agribusiness preferred by the students, barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum and it will end with a conclusion.

4.2 Demographic characteristics of students

4.2.1 Age categories of the respondents

Respondents were asked to indicate their age. The results are stated in Figure 1.

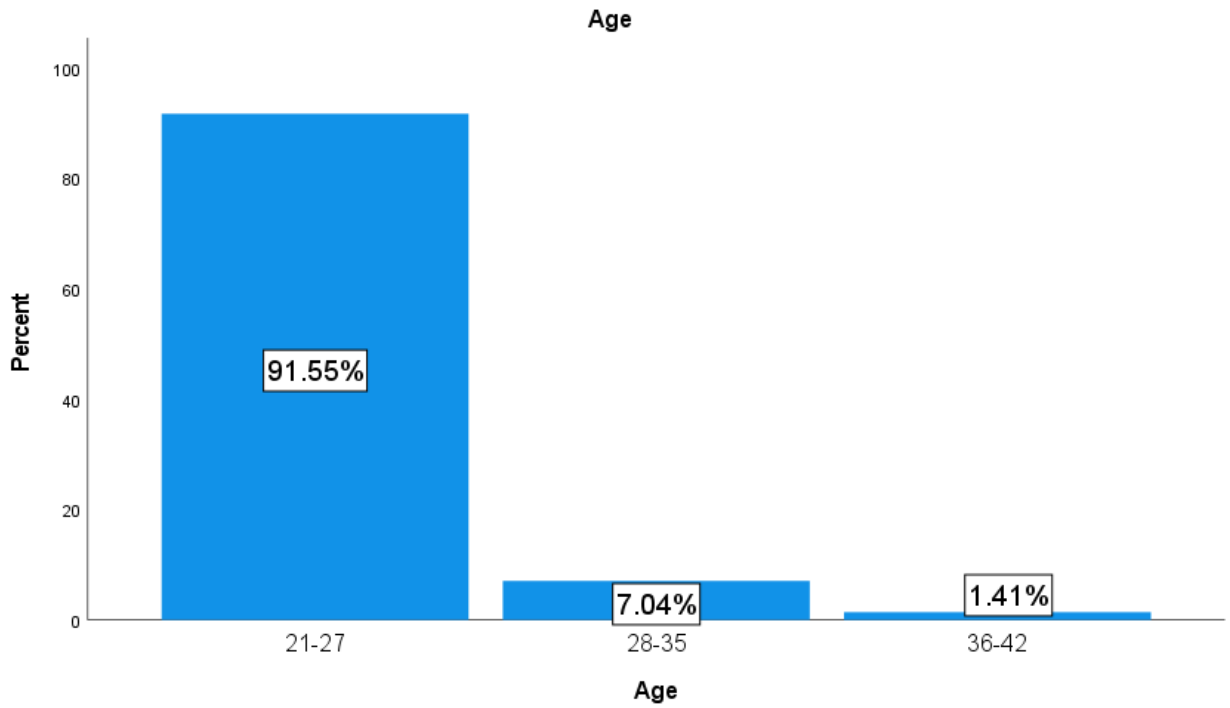


Figure 1: Age categories of the respondents

Figure 1 indicates that most of the respondents are youth aged between 21-27 years old which represented (91.55%) of the total respondents for the survey, (7.0%) were between the ages of 28-35 years old and (1.41%) were between the ages of 36-42 years old, which agrees with the findings by Fabiyi, Obaniyi, Olukosi & Oyawoye (2015) which found that the students' age ranged between 12 years to 16 years and above who were involved in their study; Agumagu, Ifeanyi & Agu (2018) research show that (90%) of their respondents were between the ages 19-27 ; Douglas, Singh & Zvenyika (2017) research indicates that The highest age frequency was found to be between 20 and 24 years (41%). This implies that majority of the youths were very agile to engage in farming activities in the study area.

4.2.2 Degree study of participants

Respondents were asked to indicate the degree they were pursuing. Their response is indicated in Figure 2.

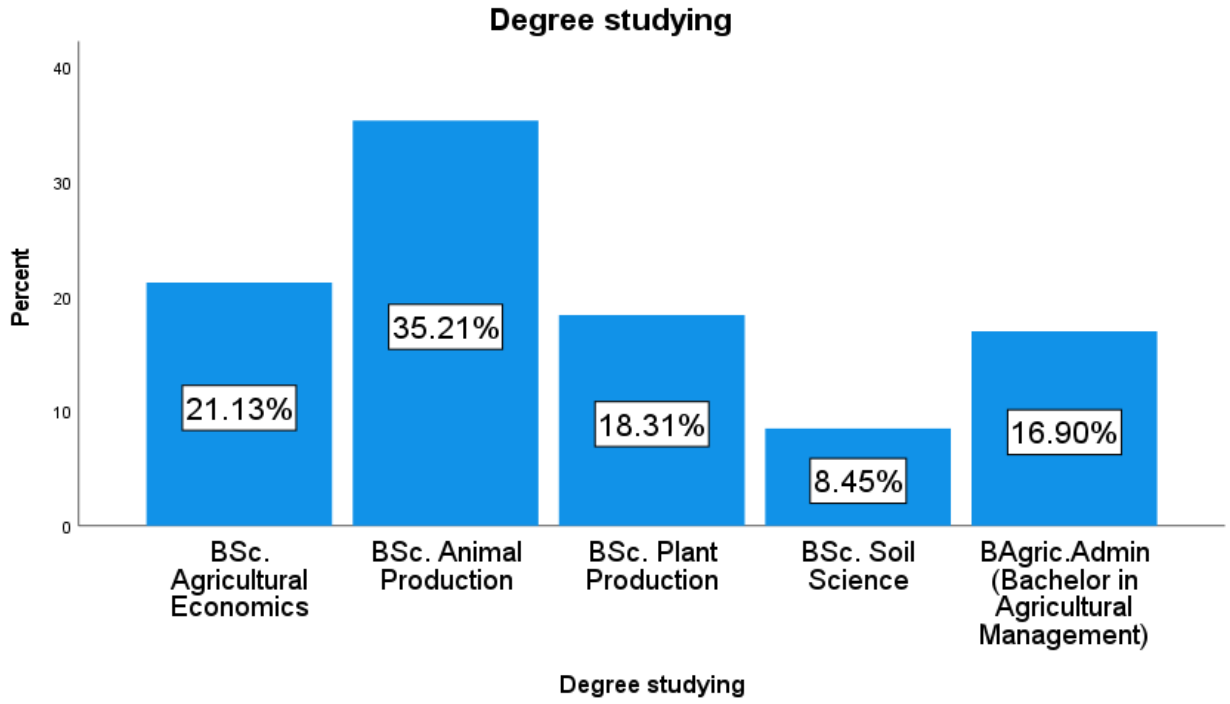


Figure 2. Degree studied by respondents

The results shown by Figure 2 indicate that the respondents were enrolled in five degree qualifications, (35.21%) of the respondents were from Bachelor of Science in Agriculture Animal Production. The BSc in Agric. (Animal production) discipline has more students in the discipline that focuses on animal breeding, animal genetics, animal nutrition and animal husbandry. These results mean that the majority of students want to be involved in the production, breeding and caring for livestock in their careers.

The results also indicate that (21.13%) of the students were from the Bachelor of Science in Agriculture (Agricultural Economics). The BSc. in Agric. Economics in the School of Agriculture and Environmental Sciences (SAES) has four major fields; rural development, macro-economics, micro-economics, local economic

development. Which means that (21.13%) of the students want to be involved in agricultural advisory services, as extension officers, marketing officers, Traders, agricultural policy analyst, banking sector, agro-processing and commodity specialist as a career.

Approximately (18%) of the respondents are studying BSc. in Plant Production. The BSc. in Plant Production in the SAES major fields include Agronomy, Horticulture, Pasture Sciences, Plant Breeding, Entomology, Nematology and Plant Pathology. This means that (18.31%) of the students want to be agronomist, horticulturist, plant breeders, crop protectionist, value chain managers, extension officers, environmental officers, seed quality control officers and farm managers.

Approximately (8%) of the respondents are studying BSc. in Soil Science. The BSc. in Soil Science in the SAES major modules include chemistry for soil science, agricultural geology, soil formation & classification, plant nutrition & soil fertility, soil biology, soil survey & land-use planning, soil mineralogy & soil chemistry, soil physics. Which means that few of the respondents want to be soil scientist, land reform advisors, project managers, extension officers, environmental officers.

The results also show that (16.90%) of the students are from BAgric.Admin (Bachelor in Agricultural Management) and its major fields include agricultural & rural development, farm management, agricultural project analysis and planted pastures & rangeland management.

4.2.3 Gender of respondents

Respondents were asked to indicate their gender. The findings are presented in Figure 3.

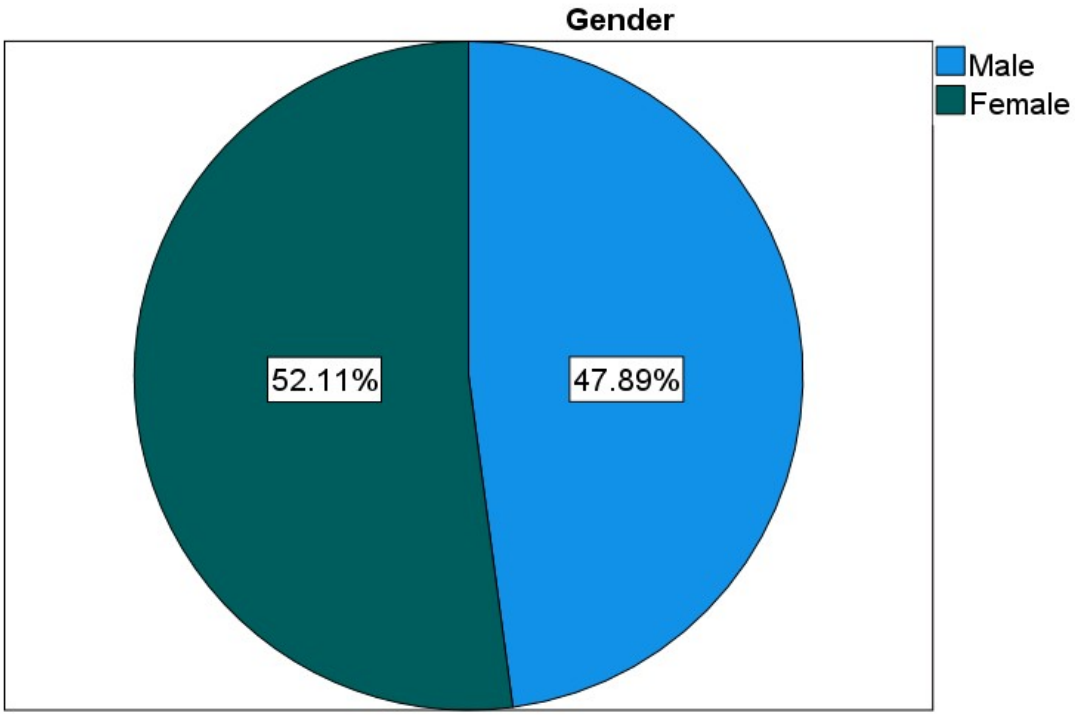

Gender
Male
Female
52.11%
47.89%

Figure 3: Gender of the students

The results shown by Figure 3 indicate the gender of respondents, majority of the respondents (52.11%) were females and (47.89%) were males. So far as gender is concerned it is evident from the data that more and more girls are enrolling for agriculture education and are taking it as a career option which is also supported by Omotesho, Olabanji, Olabode & Ogunlade (2017) 47% were males and 53% were females in their study. Agumagu, Ifeanyi-obi & Agu (2017) also 47% were males and 53% were females in their study. Fabiyi, Obaniyi, Olukosi & Oyawoye (2015) 48% males and 52% females students were involved in their study.

4.2.4 Race of students

Respondents were asked to indicate their race. The findings are presented in Figure 4.

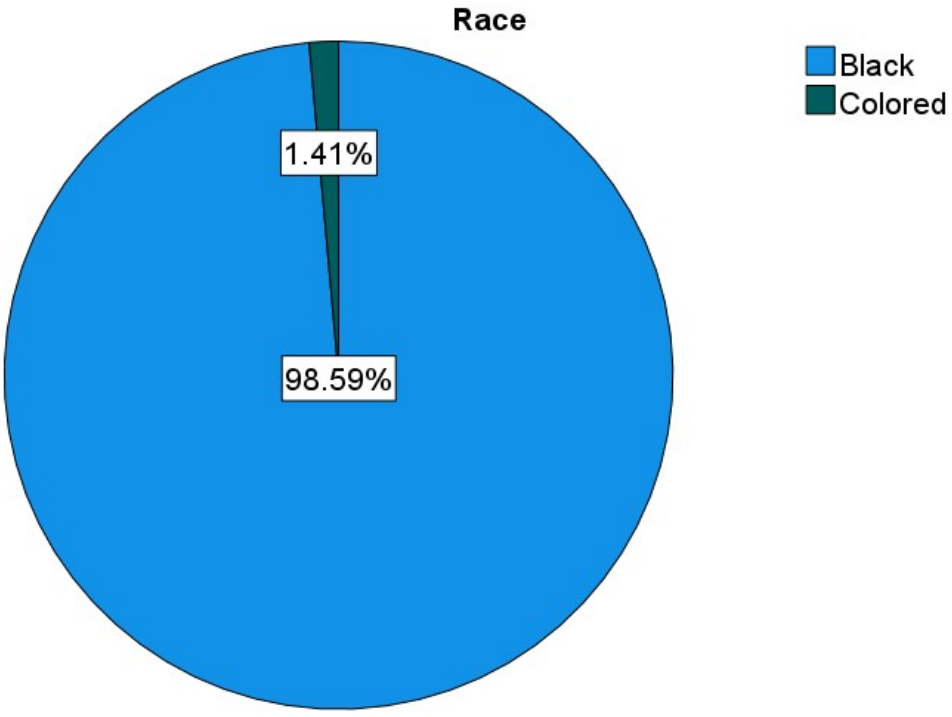


Figure 4: Race of students

Figure 4 shows that (98.59%) of the respondents were black and (1.41%) colored. The reason could be the fact that this university was designed to be catering

previously disadvantaged students from the homelands. Black students from black communities are welcome to the university.

4.2.5 Household size

Respondents were asked to indicate their household size. The findings are presented in Figure 5.

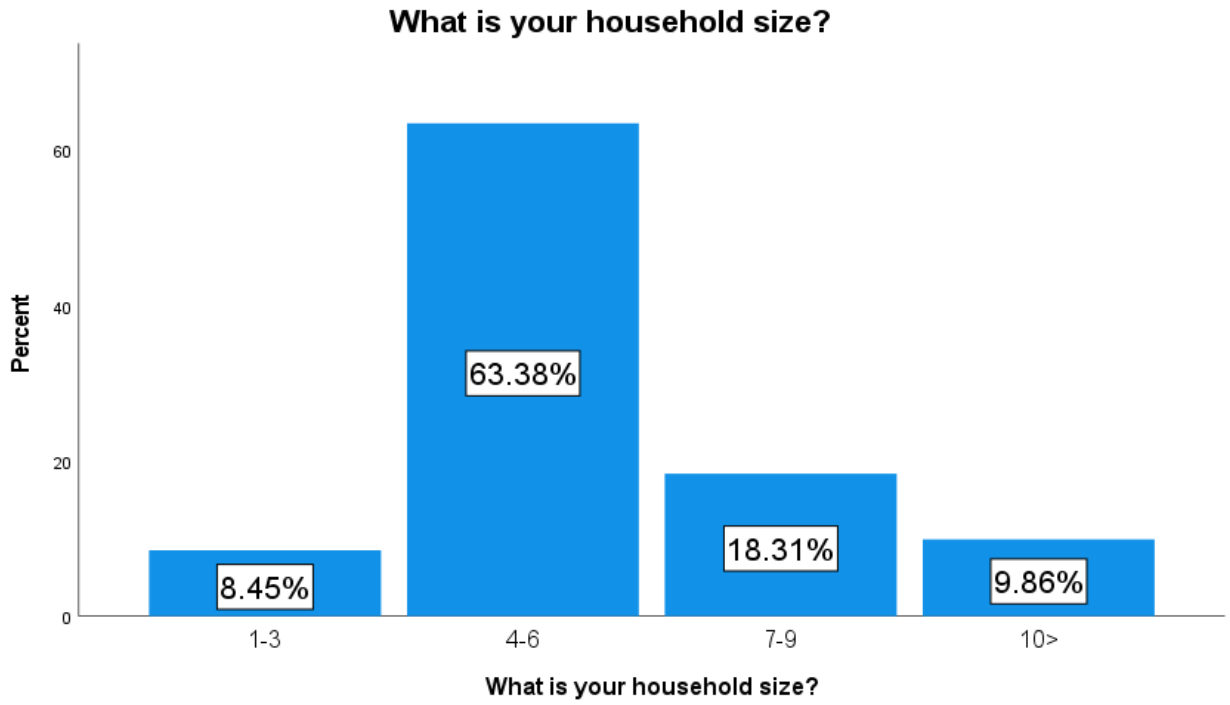


Figure 5: Household size

The results shown by Figure 5 indicate household size of the respondents, it was found that only (8.45%) come from small households of from 1-3 people, (18.31%) come from households of people from 4-6, only (9.86%) come from big households of more than 10 people, and most respondents (63.38%) come from households with 4-6 people which is in line with Gangwar & Kameswari (2016) findings which suggested that majority of the respondents belonged to medium size family (69%).

4.2.6 Family type

Respondents were asked to indicate their family type. The findings are presented in Figure 6.

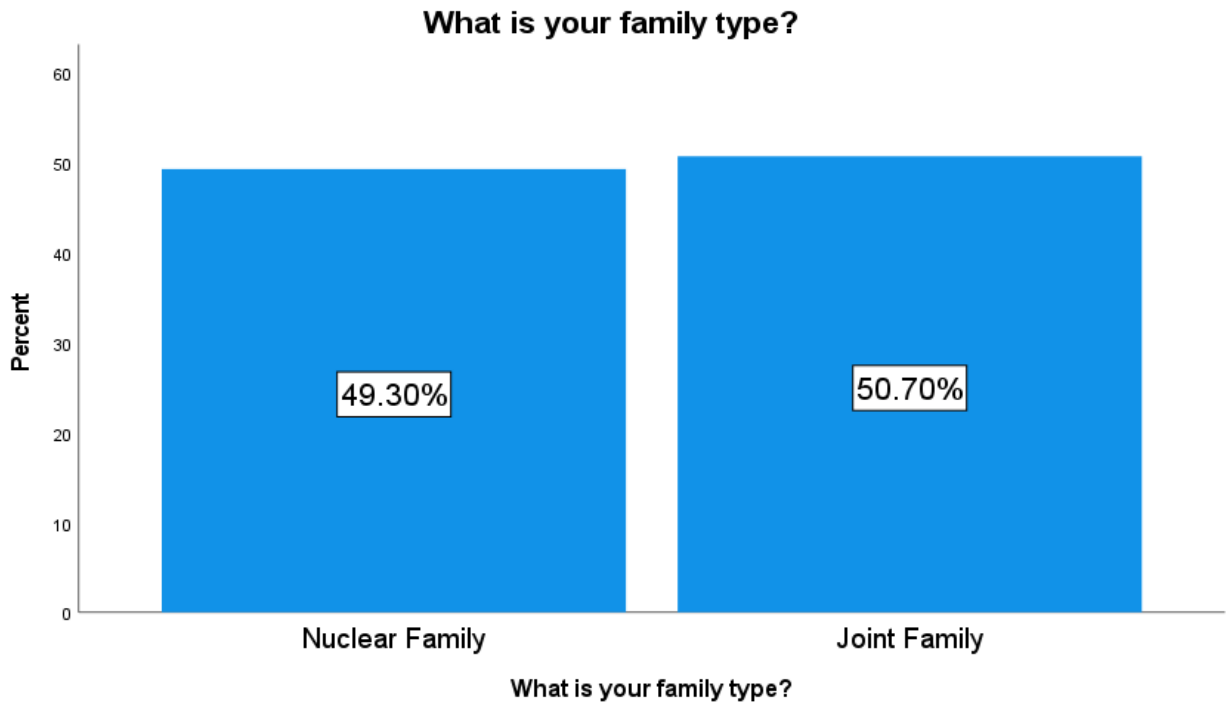


Figure 6: Family type

The results shown by figure 6 indicates family type of respondents, when it comes to family type (49.30%) of respondents come from Nuclear Families and (50.70%) come from Joint Families. Which agrees with Gangwar & Kameswari (2016) findings that suggests majority of the respondents belonged to joint family (55%).

4.2.7 Residential area of students

The respondents were asked to indicate their residential area. The findings are indicated in Figure 7.

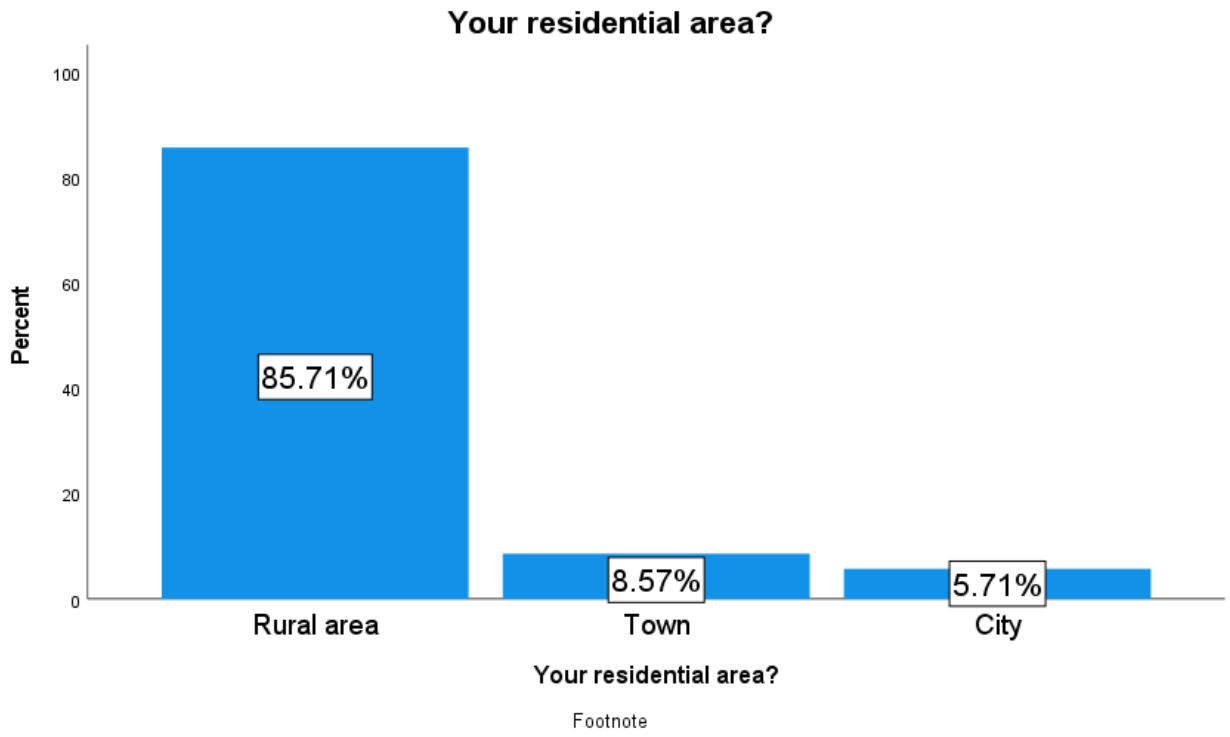


Figure 7: Residential area of students

The results shown by Figure 7 indicates that about (85.71%) of the respondents come from rural areas, while (8.57%) come from townships and (5.71%) come from cities. Based on the findings it can be noted that there is potential from rural areas because the students understand that environment.

4.3 Socio-economic characteristics of students

4.3.1 Parents Educational background

Respondents were asked to indicate their family educational background. The findings are presented in Table 2.

Table 2: Parents level of education

Parents level of education		Frequency	Percentage
Mother	Illiterate	4	5.8%
	Foundation phase	4	5.8%
	Intermediate and Senior phase	13	18.8%
	Further Education and Training (FET) band/phase	29	42.0%
	Graduation and Above	19	27.5%
Father	Illiterate	6	9.4%
	Foundation phase	5	7.8%
	Intermediate and Senior phase	6	9.4%
	Further Education and Training (FET) band/phase	27	42.2%
	Graduation and Above	20	31.3%

The results represented in Table 2 indicates that mothers of the respondents were more educated than their fathers, this does not agree with the findings of Dhakre (2014) and Dilip Kumar (2017). Maximum number of (42.0%) of respondents indicated that their mothers were educated up to FET band/phase, followed by (27.5%) have graduated. However, if one combines those who at least attended Intermediate & Senior phase and FET band/phase could arrive at (60.8%) which is a good indicator that their mothers could understand some concepts of business to influence their children. It is only a small percentage (5.8%) of the respondent's

mothers that were illiterate. Most (42.2%) of the respondent's fathers were educated up to FET, followed by who were educated up to graduation and above. However, if those who completed Foundation phase , Intermediate & Senior phase and FET it adds up to (59.4%) which indicates that even most fathers could understand some concepts of business to influence their children.

4.3.2 Parents Occupation

Respondents were asked to indicate their parent's occupation. The findings are presented in Table 3.

Table 3: Parents occupation

Parents occupation		Frequency	Percentage
Mother	Civil servant	11	15.7%
	Farmer	2	2.9%
	Business	3	4.3%
	Teacher	6	8.6%
	House wife	11	15.7%
	Other	37	52.9%
Father	Civil servant	8	12.9%
	Farmer	4	6.5%
	Business	5	8.1%
	Teacher	2	3.2%
	Stay at home father	0	0%
	Other	43	69.4%

When it comes to parents occupation, that are illustrated in Table 3, reveals that out of the total of 71 respondents, many of the respondent's mothers (52.9%) were

working other jobs which were not on the occupation list, followed by (15.7%) civil servant, (15.7%) house wife's, (8.6%) teachers, (4.3%) were in business and (2.9%) were farmers. Whereas majority of the respondent's fathers (69.4%) were doing other jobs which are not included in the occupation list. The performance of the respondents showed that the parents who worked for the government (teachers and civil service) was (15,2%) and those who were in farming was too low (6.5%) which makes one wonder whether this can really play any role to motivate their children to go to agri-entrepreneurship career. Those in business were also low (8.1%). Based on the findings, it can be stated that most of the mothers and fathers of the respondents were not having any business oriented profession, hence that could influence the respondents sense of the importance of picking a career in agriculture because they did not have a proper role model who is exposed in business at home.

4.3.3 Relative owning a business

Respondents were asked if they were having relative who as owning a business. The findings are indicated in Figure 8.

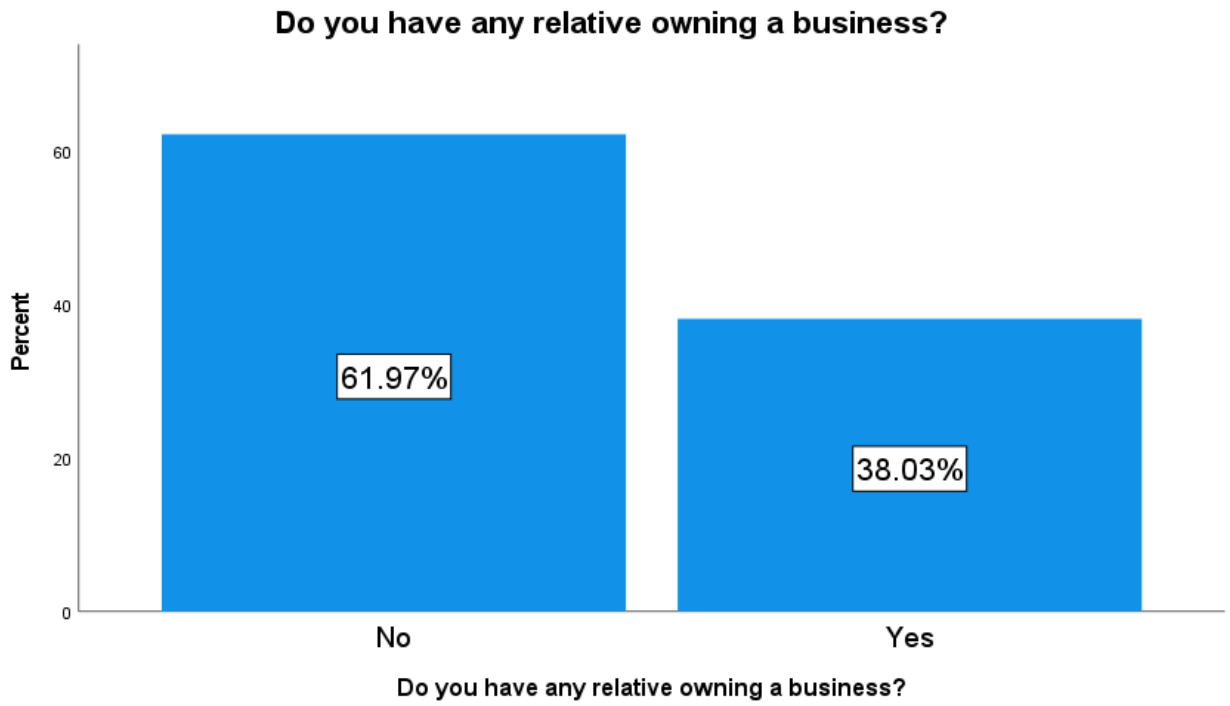


Figure 8: Relatives owning a business

Figure 8 depicts overall relative owning business for respondents. The survey showed that majority (61.97%) of the respondents had no relatives who owned businesses, while (38.03%) had relatives who owned businesses. The (38.03%) of

relatives who owned businesses included cafe owner, catering services, events decorating, chicken and eggs, children day care center, clothing apparel, construction, fast food restaurant, fixing cars, poultry, property, social working, sound rental, supermarket, spaza shop, taxi business, trucking business and tenders. Highlights of the results include the fact that three of the relatives of the respondents owned catering business and only two were in farming both dealing with poultry. Based on the findings, it can be stated that most of the students don't have business role models who are involved in agribusiness from their families hence that don't know the benefits of starting an agribusiness, which would give them a positive perception towards self-employment in agribusiness.

4.3.4 Parent's annual income

Respondents were asked to indicate their parent's annual income. The findings are reflected in Figure 9.

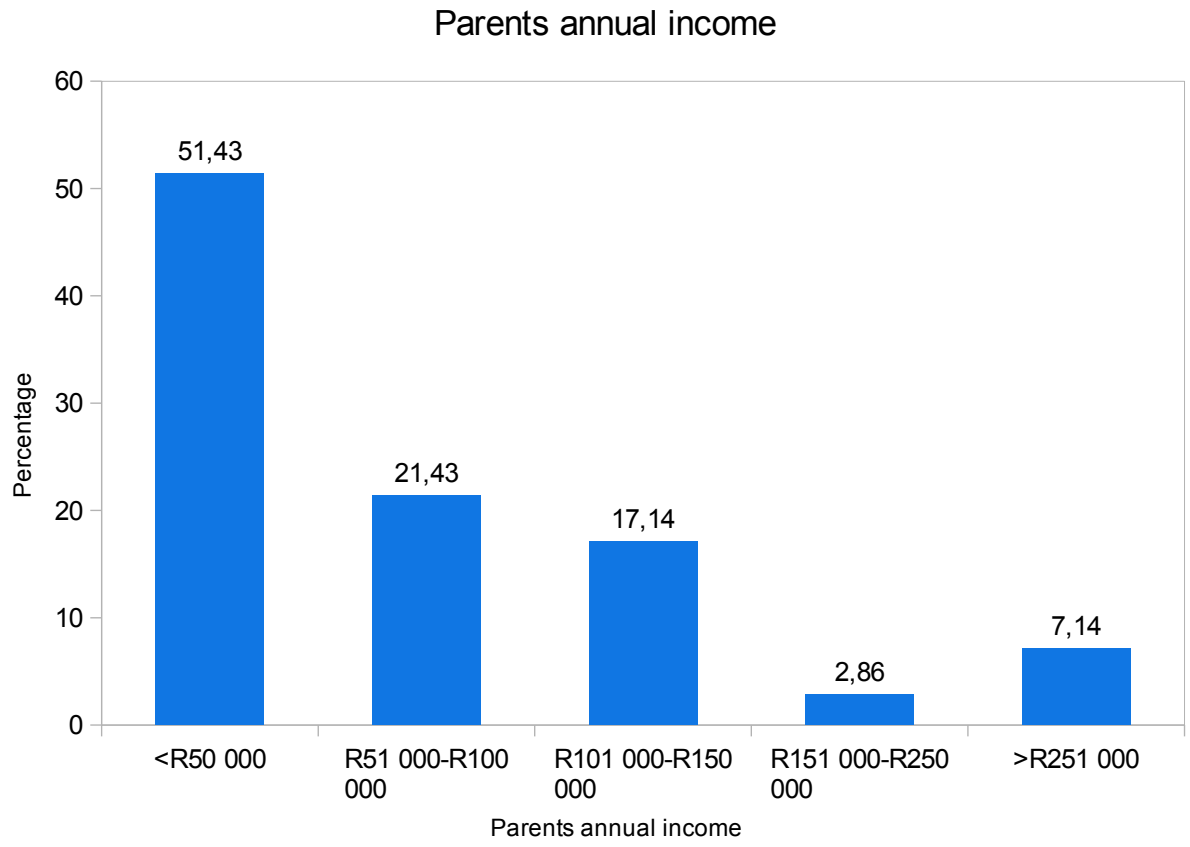


Figure 9: Parents annual income

The results shown by Figure 9 indicates that out of the total respondents, slightly over half (51.43%) of them had annual family income of less than R50 000, and (21.43%) had family annual income between R51 000-R100 000, (17.14%) had family annual income between R101 000-R150 000, (2.86%) of respondent's annual family income was around R151 000-R250 000 and (7.14%) had family annual income above R251 000. The findings suggests that most of the respondents come from poor backgrounds, hence that could influence the respondents decision to start up an agribusiness because most agribusiness start-up capital is very high and the students cannot source the capital from their families.

4.3.5 Access to farming land/ own some land

Respondents were asked to indicate access to farming /and own some land. The findings are reflected in Figure 10.

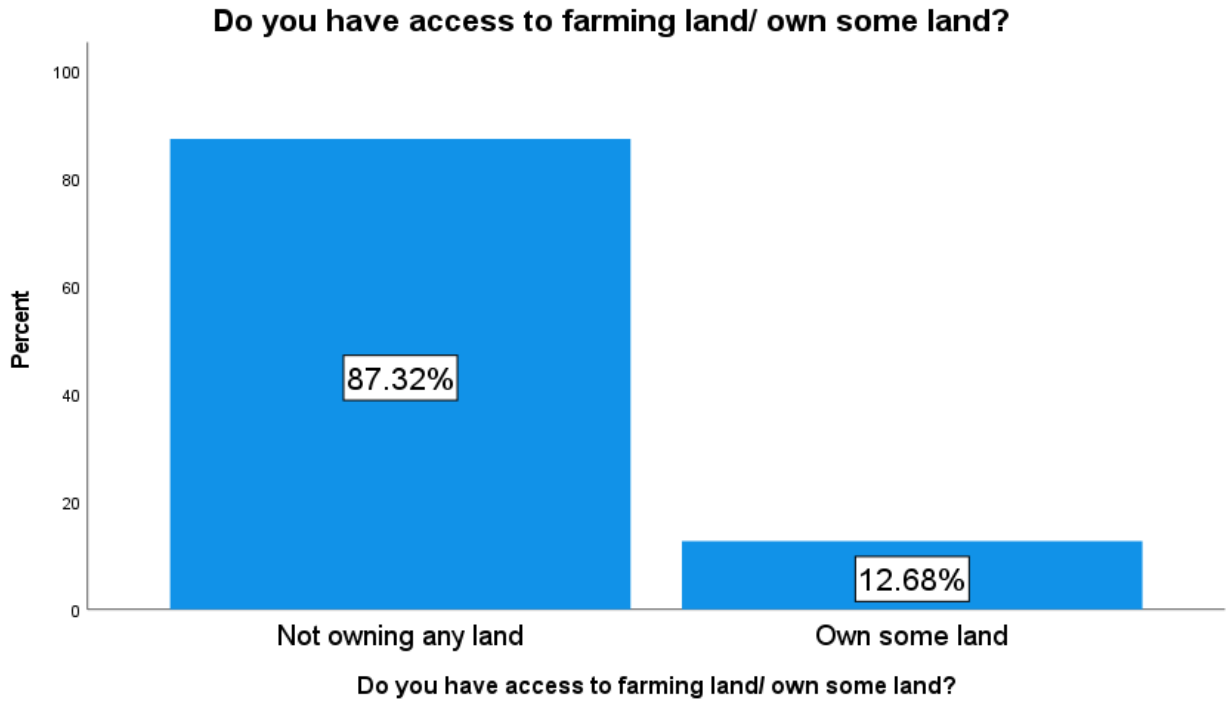


Figure 10: Access to farming land/own some land

The results shown by Figure 10 represent respondent's access to farming land/ ownership of land. There is a huge number of students who come from background of not having any land (87.32%), whereas those who own/ have access to farming land were (12.68%). The same results were revealed by Tolamo (2014) and

Douglas, Singh & Zvenyika (2017) who highlighted that it's not easy for young people to access or own land. Traditionally youth conduct their farming in their parents' land until when they get married. However, the majority are not free to start projects for personal income generation. This has a negative bearing on youth participation and perception towards farming and agribusiness.

4.3.6 Farming experience

Respondents were asked to indicate their farming experience. The findings are reflected in Figure 11.

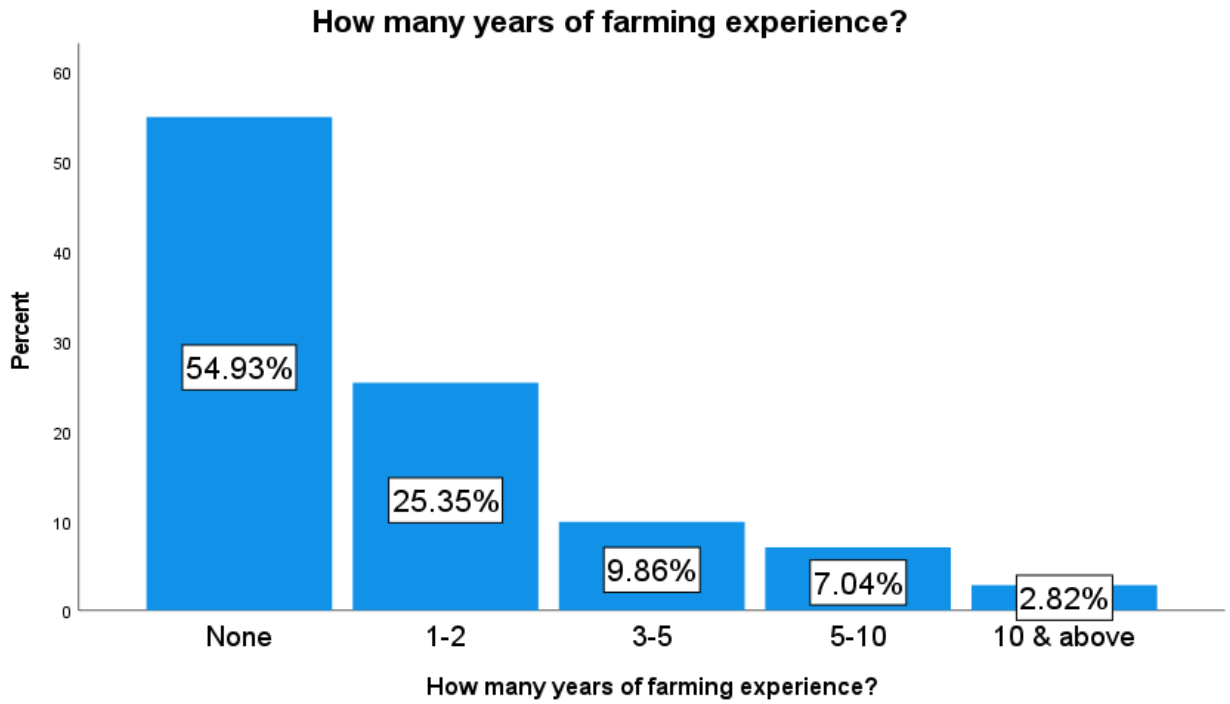


Figure 11: Respondents farming experience

Figure 11 shows farming experience of respondents. It indicates that more than half of the respondents (54.93%) had no farming experience, even those had few years of experience were not so significant, the remaining percentage did not have any meaningful majority of experience, they differed in rages of 1-2 years of farming experience and 3-5, 5-10 and above 10 years of farming experience. Based on the findings it is safe to say that most of the students don't have farming experience, this results in students having negative perceptions that farming is very labor intensive, it

also acts as a perceived risk which negatively affects student's decision to establish their own agribusiness due to the fear of failure propelled by the fact that they don't have experience.

4.4 Perception of agriculture students towards self-employment in agribusiness.

Respondents were given statements on perception towards self-employment in agribusiness. The findings are reflected in Table 4.

Table 4: Perception of agriculture students towards self-employment in agribusiness.

Statements	No. of respondents	Mean	Std. Deviation
1. Agribusiness is part of my everyday life	71	1.87	.809
2. Agribusiness is very key to my community	71	2.24	.853
3. Farmers are notable people	71	2.06	.826
4. Farming is not laborious	71	.75	.982
5. Farming is sustainable	71	2.35	.635
6. Farming is tedious	71	1.15	.856
7. It does not bring daily income like other jobs	71	0.77	.974
8. Farmers still use crude implements	71	1.27	.878
9. I prefer other degrading jobs than engaging in agriculture	71	0.46	.693
10. Farm work is dirty job	71	0.82	1.004
11. Agribusiness cannot be completely depended on	71	0.61	.707
12. Farming is regarded as a dumping ground for people that could not secure non- agricultural jobs	71	0.44	.712
13. Agribusiness is a waste of time that can be used for other promising	71	0.23	.453

activities			
14. Farming is for poor people	71	0.17	.414
15. Farming is not appealing because its dirty work	71	0.48	.790
16. Farming is a stepping stone to other careers	71	0.80	1.037
17. Agriculture graduates have necessary skills for Entrepreneurship	71	2.08	.906
18. There is the potential of the agricultural based entrepreneurship in South Africa	71	2.25	.874
19. Entrepreneurship is effective in reducing Unemployment	71	2.59	.688
20. My family and relatives will financial support	71	1.27	.956
21. It is the duty of government to create jobs for agriculture graduates	71	1.25	1.079
22. Farming requires high capital outlay	71	2.04	.836
23. Profitability in farming is very low	71	0.56	.712

The Four-point Likert scale was used to analyze the information from students regarding their perception about self-employment in agribusinesses. Statements adapted from literature review regarding perception indicators of self-employment in agribusinesses were presented to the student to rank on the scale of 0 to 3 (0=strongly disagree, 1=disagree, 2=agree, 3= strongly agree). In this case the average score for any possible responded statement have a mean score value = 1.5. This implies that a mean score above and greater than 1.5 indicate a positive perception or agreement and a mean score less than 1.5 indicates a negative perception or disagreement of a student to the respective statement in question.

The result from Table 4 indicated that students generally agreed with each of the following statements with their respective mean values at a significance level at 5 percent. “Agribusiness is part of my everyday life” with mean value 1.87, “Agribusiness is very key to my community” with mean value 2.24, “Farmers are

notable people" with mean value 2.06, "Farming is sustainable" with mean value 2.35, "Agriculture graduates have necessary skills for Entrepreneurship" with mean value 2.08, "Agricultural students should think about Entrepreneurship" with mean value 2.58, "There is the potential of the agricultural based entrepreneurship in South Africa" with mean value 2.25, "Entrepreneurship is effective in reducing Unemployment" with mean value 2.59 and lastly "Farming requires high capital outlay" with mean value 2.04.

This means that respondents have a positive perception about agribusiness being part of their everyday life and plays a very important role in their communities since most of the students are from rural areas, they also believe that farmers are notable people, they have a positive perception when it comes to agriculture being a sustainable way to make a living, they also believe that graduates have required skills to make it in entrepreneurship and should consider it with the high unemployment rates because they believe there's has high prospects of success in South Africa.

Statement with mean values below 1.5 showed that students had negative perception towards them , this included statements like "Farming is not laborious" with mean value 0.75, "Farming is tedious" 1.15, "It does not bring daily income like other jobs" 0.77, "Farmers still use crude implements" 1.27, "I prefer other degrading jobs than engaging in agriculture" 0.46, "Farm work is dirty job" 0.82, "Agribusiness cannot be completely depended on" 0.61, "Farming is regarded as a dumping ground for people that could not secure non- agricultural jobs" 0.44, "Agribusiness is a waste of time that can be used for other promising activities" 0.23, "Farming is for poor people" 0.17, "Farming is not appealing because its dirty work" 0.48, "Farming is a stepping stone to other careers" 0.80, "My family and relatives will financial support" 1.27, "It is the duty of government to create jobs for agriculture graduates" 1.25 and lastly "Profitability in farming is very low" with a mean value 0.56.

The results imply that students believed that farming is very much labor intensive, also that farming is not boring or frustrating. They also expressed farming has the potential to bring daily income like other jobs, also that farmers have adopted and no longer use old farming equipment and techniques. Most student preferred farming

than other degrading jobs or less prestige jobs, they also believed that farming can be depended on to make a living.

The respondents didn't believe that people go into farming because they have nowhere else to go, they believed that people go into farming because they see potential. The students disagreed to the statements that farming is for poor people and a stepping stone to other careers. The respondents doubted that their families and relatives will support them to venture into agribusiness so they have to opt for other alternative funding like government grants and other loans. Students did not believe in waiting for the government to create job opportunities for them and they also believed that profitability in farming is high. This implies that students are not waiting for job handouts from government they require support in establishing their own businesses and jobs.

4.5 Type of agribusiness preferred by the students.

4.5.1 Respondents preference of Soil water quality inputs testing laboratories

Respondents were asked to indicate their preference on soil water quality inputs testing laboratories. The findings are reflected in Figure 12.

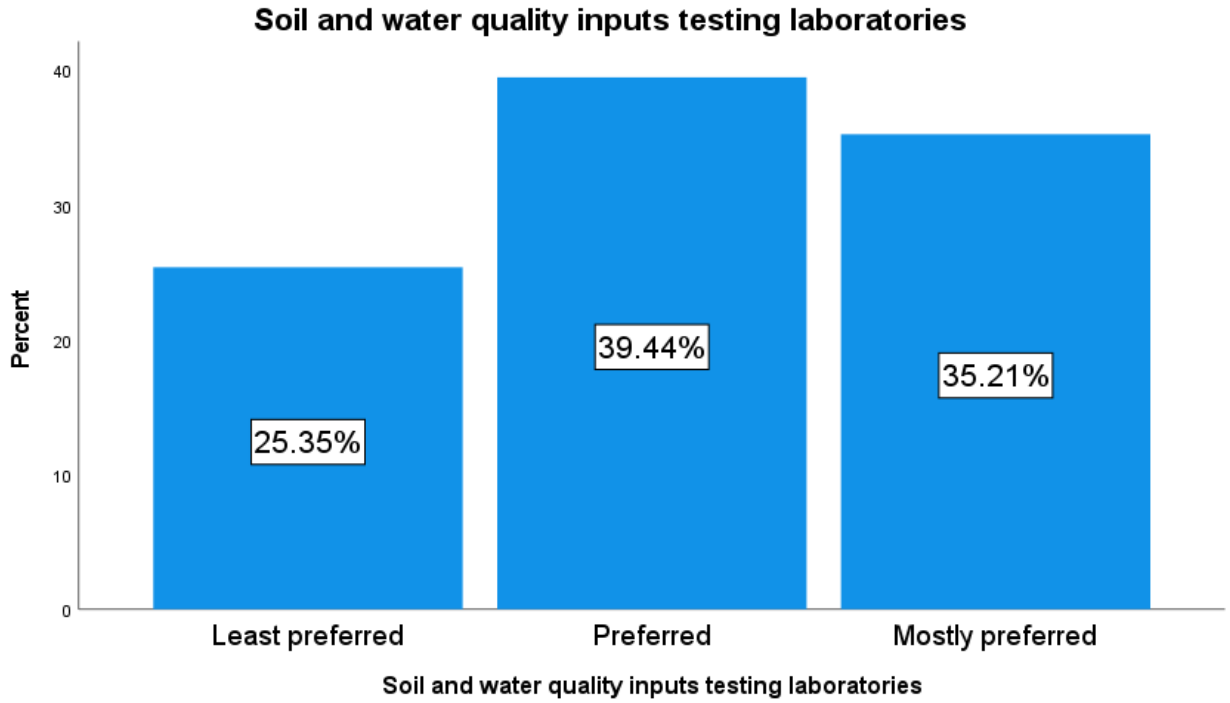


Figure 12: Respondents preference of soil water quality inputs testing laboratories

The results show that majority of the students/respondents (39.44%) preferred starting a soil and water quality inputs testing laboratories while (35.21%) mostly preferred, and (25.35%) least preferred Soil and water testing laboratories agribusiness.

Irrigation and Soil Water Balance is a third-year SAES degree module that covers irrigation planning, water supply (sources, quality, and quantity), soil physical, chemical, and biological characteristics, topography, system design capacity, application efficiency, uniformity of application, water tables & salinity, irrigation method selection, and soil water balance, infiltration & application rates, evapotranspiration(ET), estimating ET & peak irrigation demand, irrigation scheduling, water budget, allowance for rainfall, gross irrigation application, deficit irrigation, irrigation methods, surface irrigation, spray irrigation, micro irrigation & small scale irrigation in South Africa, Needs in terms of technology, infrastructure, management, and training. The results seem to imply that SAES provides students with sufficient theoretical information regarding soil water quality inputs testing laboratories in order for them to work for corporations, but it fails to teach knowledge and skills on how to apply this knowledge to start agri-businesses.

4.5.2 Respondents preference of repairing, maintenance and hiring implements

Respondents were asked to indicate their preference of repairing, maintenance and hiring of implements. The findings are indicated in Figure 13.

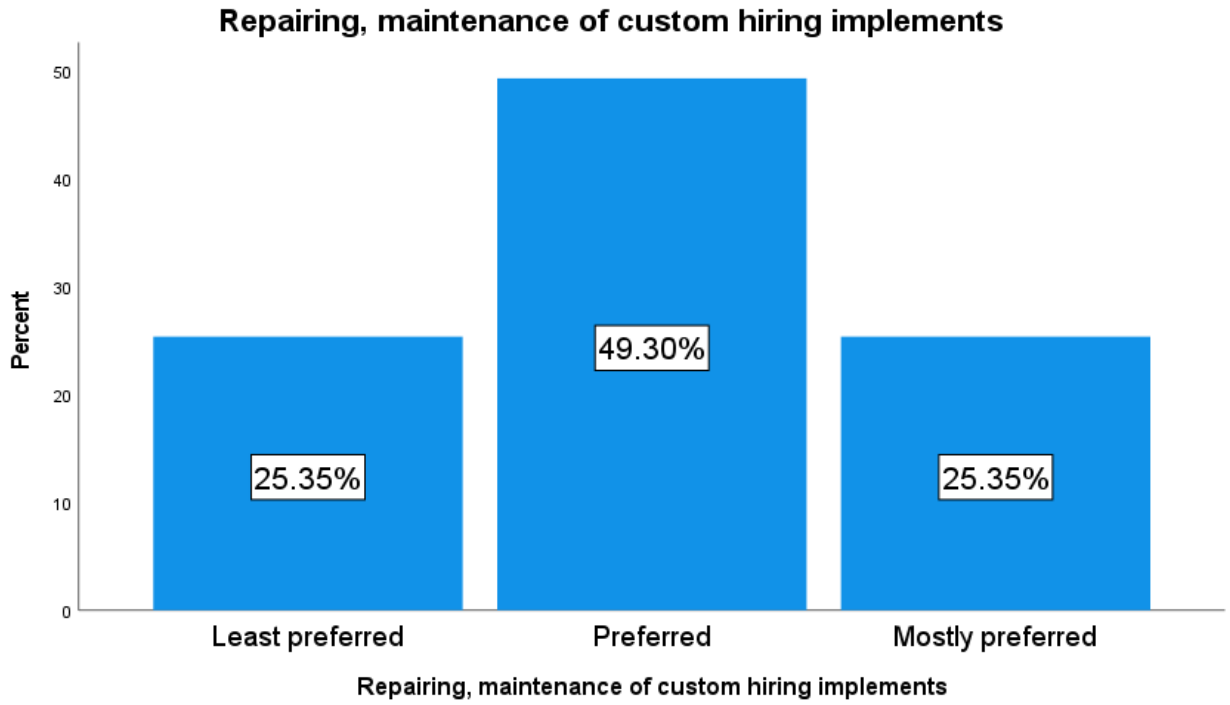


Figure 13: Respondents preference of repairing, maintenance and hiring implements

The results show that most of the students (49.30%) preferred starting a repairing, maintenance of custom hiring implements in the agricultural sector. While (25.35%) least preferred and (25.35%) of the respondents mostly preferred a repairing, maintenance of custom hiring implements. Although there are no modules in the SAES that deal explicitly with repairing, maintaining, and hiring implements, it is clear that some students opt to start agri-businesses that deal with repairing, maintaining, and hiring implements. In this scenario, the author has no idea why the respondents would prefer to start a repair business.

4.5.3 Students preference of seed processing units

Respondents were asked to indicate their preference on seed processing units . The findings are reflected in Figure 14.

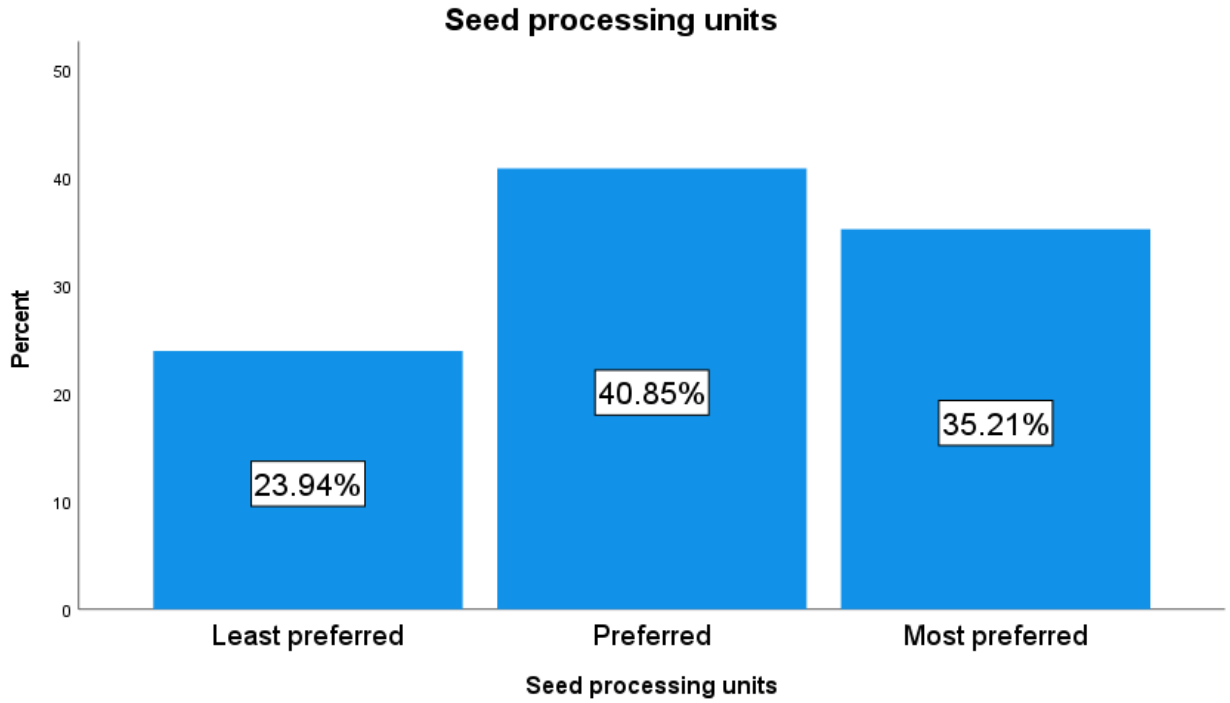


Figure 14: Students preference of seed processing units

The results above indicate that (40.85%) of the respondents preferred establishing seed processing unit's agribusinesses. Which was followed by (35.21%) mostly preferred and (23.94%) of the respondents least preferred seed processing units.

Seed technology and nursery culture is a module in the school's Bachelor of Science in Plant Production fourth-year program that covers seed definition and importance in plant production, seed structure and chemistry, vegetative propagation, seed quality - seed germination & viability testing, seed vigour & vigour testing, seed dormancy & seed deterioration, and seed dormancy & seed deterioration, seedling survival, transplanting shock and seedling hardening, structure of the seed industry, seed certification & seed production of horticultural crops (fruits & vegetables), legislation affecting nursery culture & management of nursery (screen shade & glasshouse cultures, growing media & seedling production, crop protection), seed certification (structure of certification scheme & seed classes, seed legislation) & seed production of field crops (maize hybrids & OPVs, soybean, potatoes and sweet potato), community based seed production. The SAES seems to provides students with enough theoretical information about seed processing units to allow them to work for firms, but it fails to teach knowledge and skills on how to apply this

knowledge to start agri-businesses. That is why some students dislike seed processing machines the most.

4.5.4 Students' preference in producing bio-fertilisers, bio-pesticides and bio-control agents

Respondents were asked to indicate their preference on producing bio-fertilisers, bio-pesticides and biocontrol agents. The findings are reflected in Figure 15.

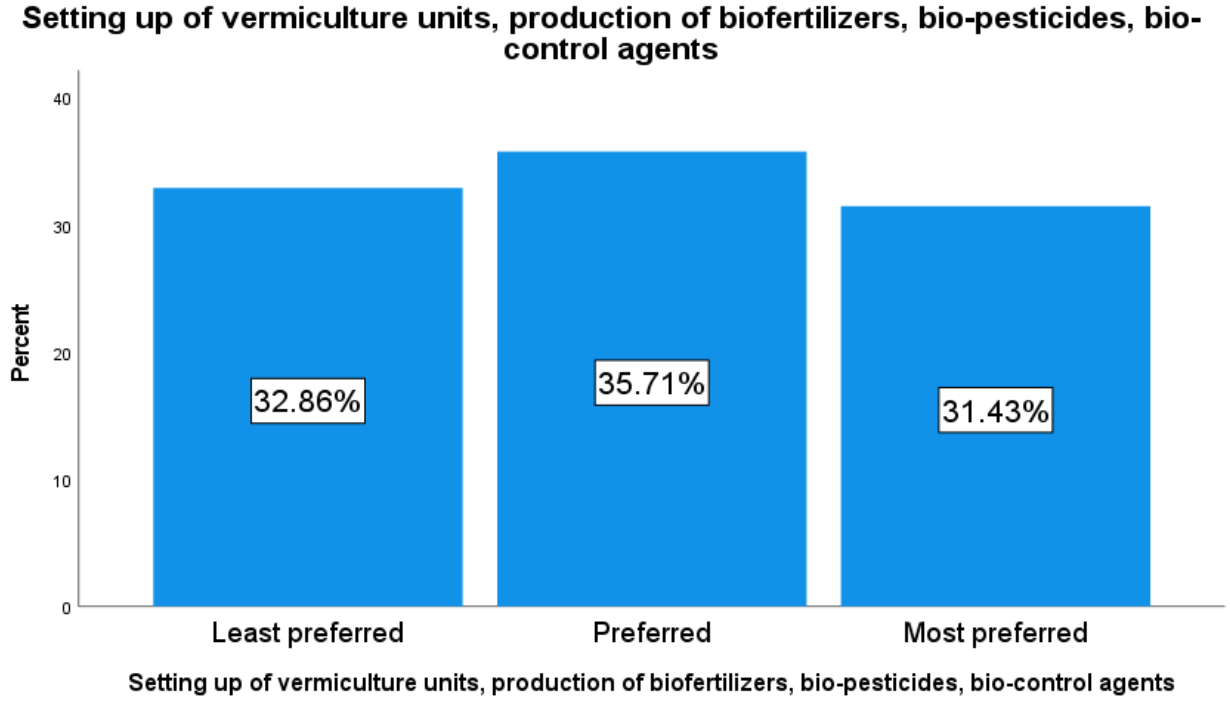


Figure 15: Students' preference in producing bio-fertilizers, bio-pesticides and bio-control agents

The results show that (35.71%) of the respondents preferred setting up vermiculture units, production of bio-fertilizers, bio-pesticides, and bio- control agents businesses. (32.86%) least preferred and (31.43%) mostly preferred setting up of vermiculture units, production of bio-fertilizers, bio-pesticides, and bio-control agents businesses.

The SAES offers a Bachelor of Science in Plant Production program that includes a Pest, Pathogen, and Weed Management module in the second year that covers definitions, pest-plant-environment interaction concepts and principles, morphology, classification, and economic damage caused by insects, mites, and nematodes,

pathogens (bacteria, fungi, viruses, mycoplasms) and weeds on agricultural crops. This implies that the SAES provides students with enough theoretical information about bio-fertilizers, bio-pesticides, and bio-control agents to allow them to work for firms, but it fails to teach knowledge and skills on how to apply this knowledge to start agri-businesses. This could be why some students dislike bio-fertilizers, insecticides, and control agents.

4.5.5 Micro propagation through plant tissue culture labs

Respondents were asked to indicate their preference on micro propagation through plant tissue culture labs. The findings are reflected in Figure 16.

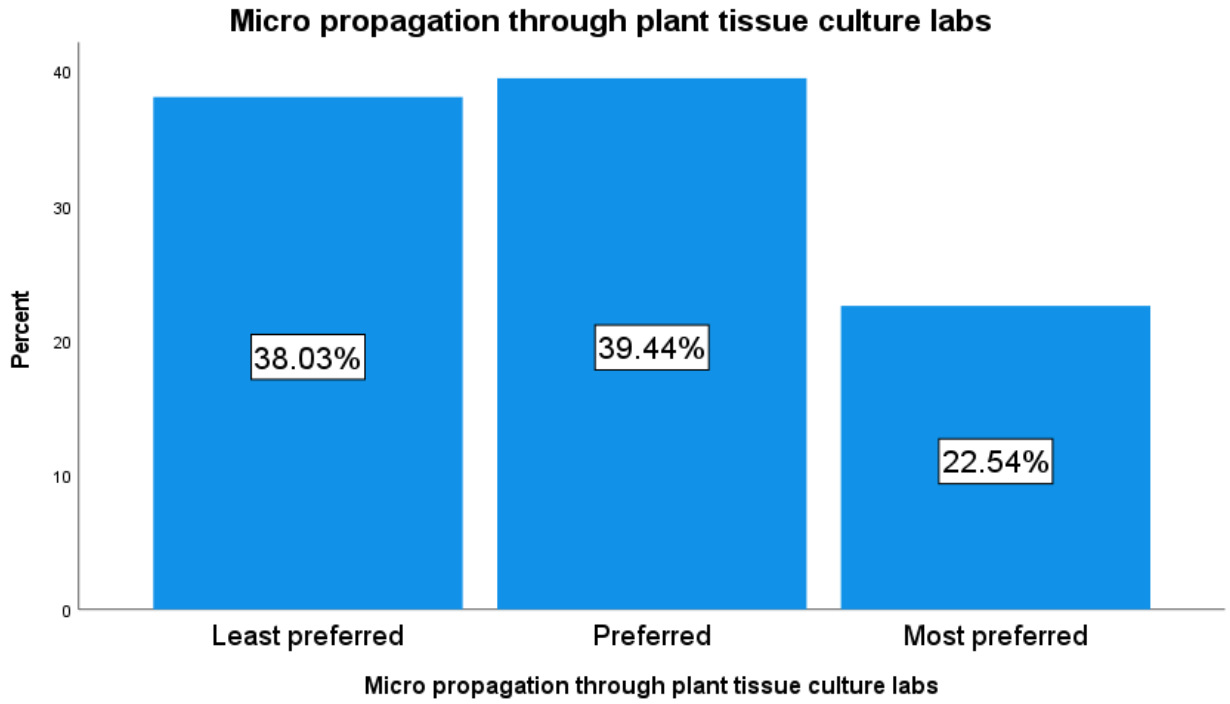


Figure 16: Micro propagation through plant tissue culture labs

The results indicate that (39.44%) of the respondents preferred starting a micro propagation through plant tissue culture labs agribusiness, (38.03%) least preferred and (22.54%) mostly preferred starting micro propagation through plant tissue culture labs agribusinesses.

This performance is not surprising because the SAES has Bachelor of Science in Plant Production which in first year has a module called Plant Biology which deals

with diversity of plants in form, growth, habit, reproduction, ecology, metabolism, & genetic composition. The emphasis is on how the structure & anatomy of plants enable them to carry out certain functions, adapt to certain ecological habitats, carry out different physiological processes; and modes of reproduction. The degree in second year also has degree called Plant Genetics which deals with Inheritance of genes, linkage, mutation (gene mutation, mutation breeding, chromosome mutation & chromosome mechanisms in plant breeding), quantitative genetics, population genetics, molecular genetics, developmental genetics. It seems like SAES provide enough theoretical knowledge about plant tissue culture labs to the student's just for them to work for companies, buts fails to provide knowledge and skills about how to use this knowledge to establish agri-businesses.

4.5.6 Students' preference in setting up of apiaries and honey product processing

Respondents were asked to indicate their preference in setting up of apiaries and honey product processing. The findings are reflected in Figure 17.

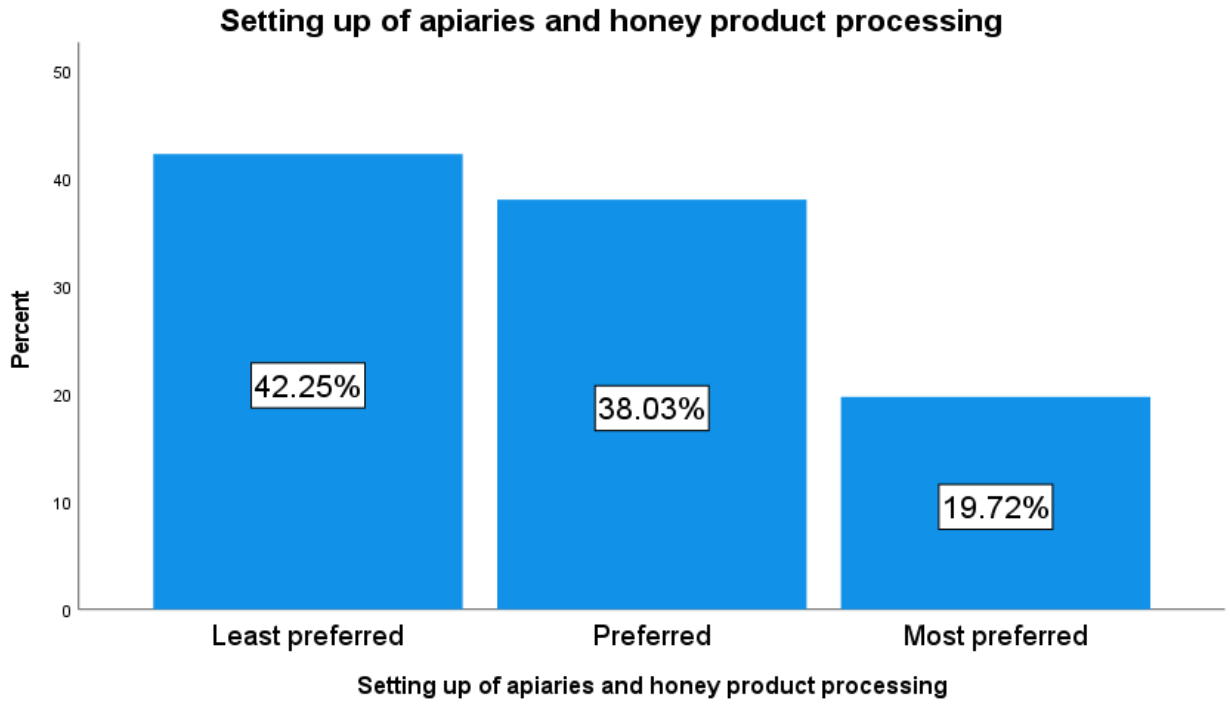


Figure 17: Student's preference in setting up of apiaries and honey product processing

From Figure 17 it is evident that (42.25%) of the student's least preferred setting up of apiaries and honey product processing agribusiness, (38.03%) preferred and

((19.72%) mostly preferred setting up of apiaries and honey product processing agribusiness. The SAES doesn't have any modules specifically dealing with apiaries and honey product processing. This could be the reason why high number of students least preferred apiaries and honey product processing based agri-businesses. The author has no clue why some of the respondents would prefer starting apiaries and honey product processing business in this case.

4.5.7 Students preference in the provision of extension consultancy services

Respondents were asked to indicate their preference in the provision of extension consultancy services. The findings are reflected in Figure 18.

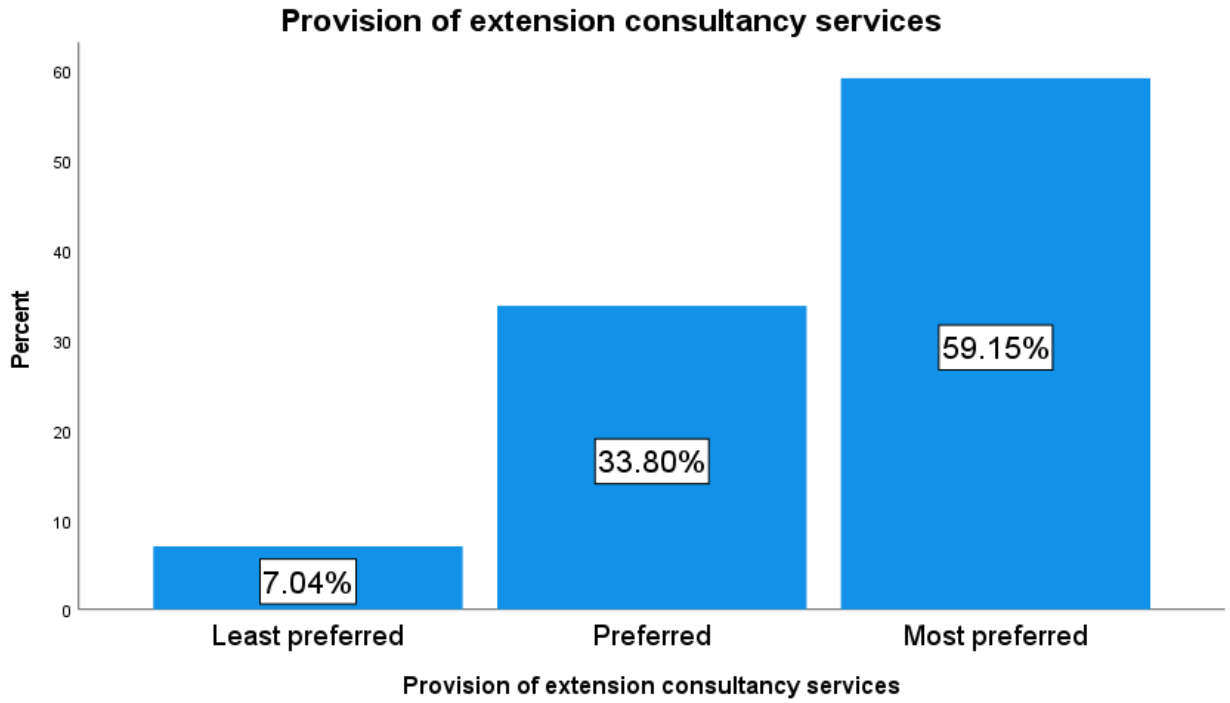


Figure 18: Students preference in the provision of extension consultancy services

The results show that (59.15%) of the respondent mostly preferred starting provision of extension consultancy services agribusiness, (33,80%) preferred and (7.04%) least preferred starting provision of extension consultancy services agribusiness. The findings is surprising especially the (59.15%) performance because the respondents were not taking the full module of extension besides the introductory module at undergraduate level. It seems they just perceived extension as not difficulty or they did not understand the depth of the question.

The SAES has Bachelor of Science in Plant Production and Bachelor of Science in Soil Science which in third year and bachelor of science in agricultural economics in second year, have a module called Introduction to Agricultural Extension respectively which deals with history of agricultural extension, philosophical foundation of extension characteristics of agricultural extension, adult learning critical characteristics of adult learners, adult developmental trends, principles of adult education, farmer training centres purpose and objectives of farmer training centres. planning and training division in training centres, the agricultural extension unit in training centres, communication in extension, the importance of communication in extension, the communication process in extension problematic areas in communication, extension systems transfer of technology, participatory extension approach participatory innovation development training & visit system, farmer to farmer approach, challenges facing agricultural extension, changing role of extension, Land reform Natural resource management in research-extension, Organization of extension services Conditions for organization of Extension service Leadership in extension organization Staff Development Gender and Extension. It seems like the SAES has enough modules in various Degrees and year levels, that's why students mostly preferred (59%) provision of extension consultancy services agri-businesses.

4.5.8 Students' preference in facilitation and agency of agricultural insurance savings

Respondents were asked to indicate their preference in facilitation and agency of agricultural insurance savings. The findings are reflected in Figure 19.

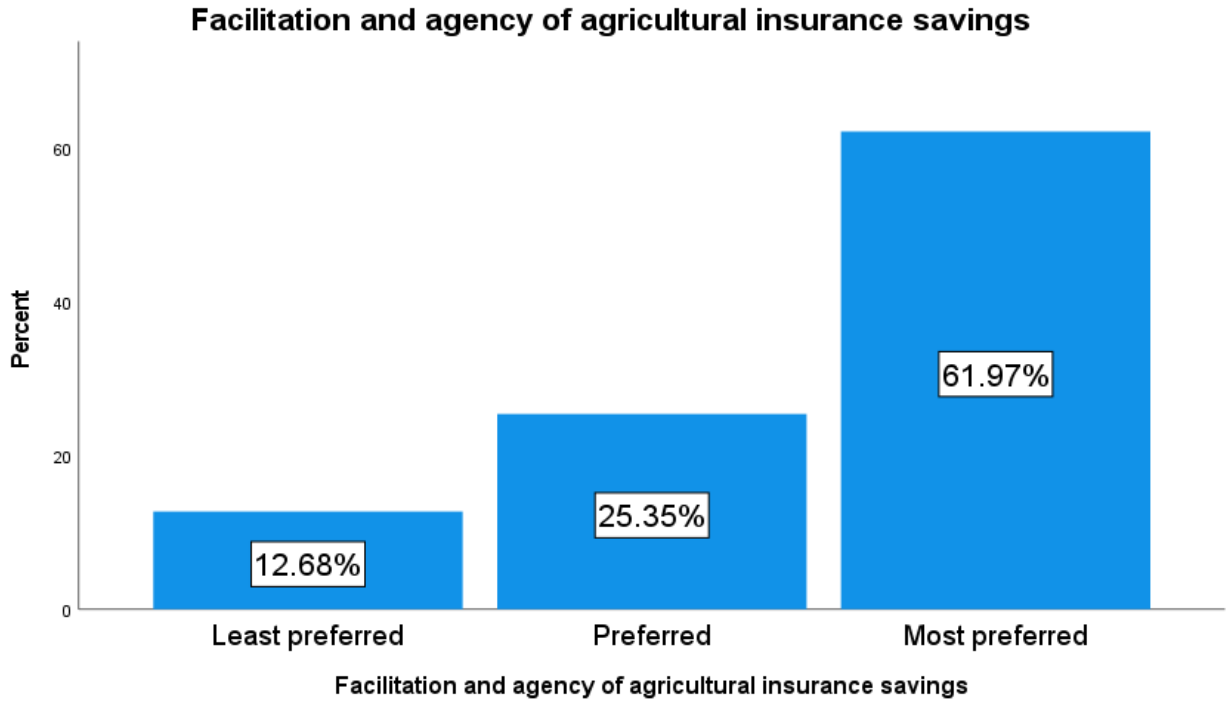


Figure 19: Students' preference in facilitation and agency of agricultural insurance savings

Figure 19 indicates that (61.97%) of the students mostly preferred starting facilitation and agency of agricultural insurance savings agribusinesses, (25.35%) preferred and 12.68% least preferred starting facilitation and agency of agricultural insurance savings agribusinesses. The SAES doesn't have any modules specifically dealing with facilitation and agency of agricultural insurance savings. But the findings indicate that students mostly preferred (61.97%) starting facilitation and agency of agricultural insurance savings agri-businesses.

4.5.9 Students' preference in hatcheries and production of fish, finger lines for aquaculture

Respondents were asked to indicate their preference in hatcheries and production of fish, finger lines for aquaculture. The findings are reflected in Figure 20.

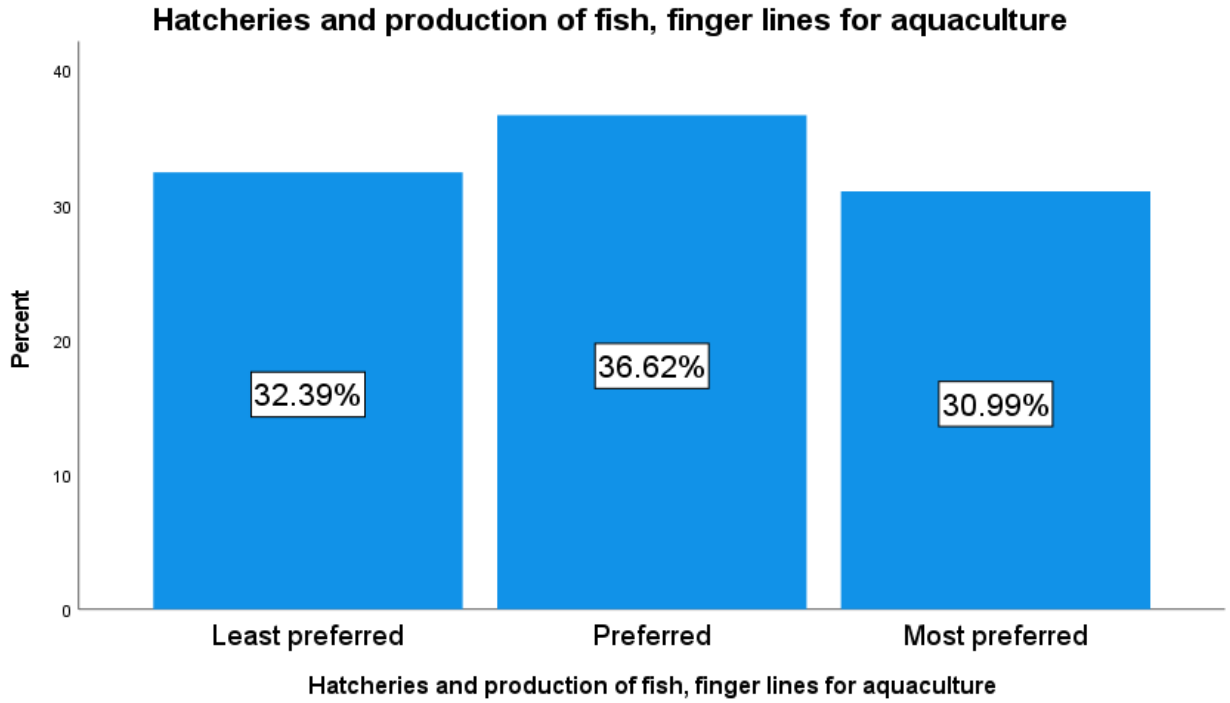


Figure 20: Students' preference in hatcheries and production of fish, finger lines for aquaculture

The results show that (36.62%) of the respondents preferred starting hatcheries and production of fish, finger lines for aquaculture agribusinesses, (32.39%) least preferred while (30.99%) mostly preferred starting hatcheries and production of fish, finger lines for aquaculture agribusiness.

4.5.10 Students preference of setting up of information technology kiosks in rural areas

Respondents were asked to indicate their preference on setting up of information technology kiosks in rural areas. The findings are reflected in Figure 21.

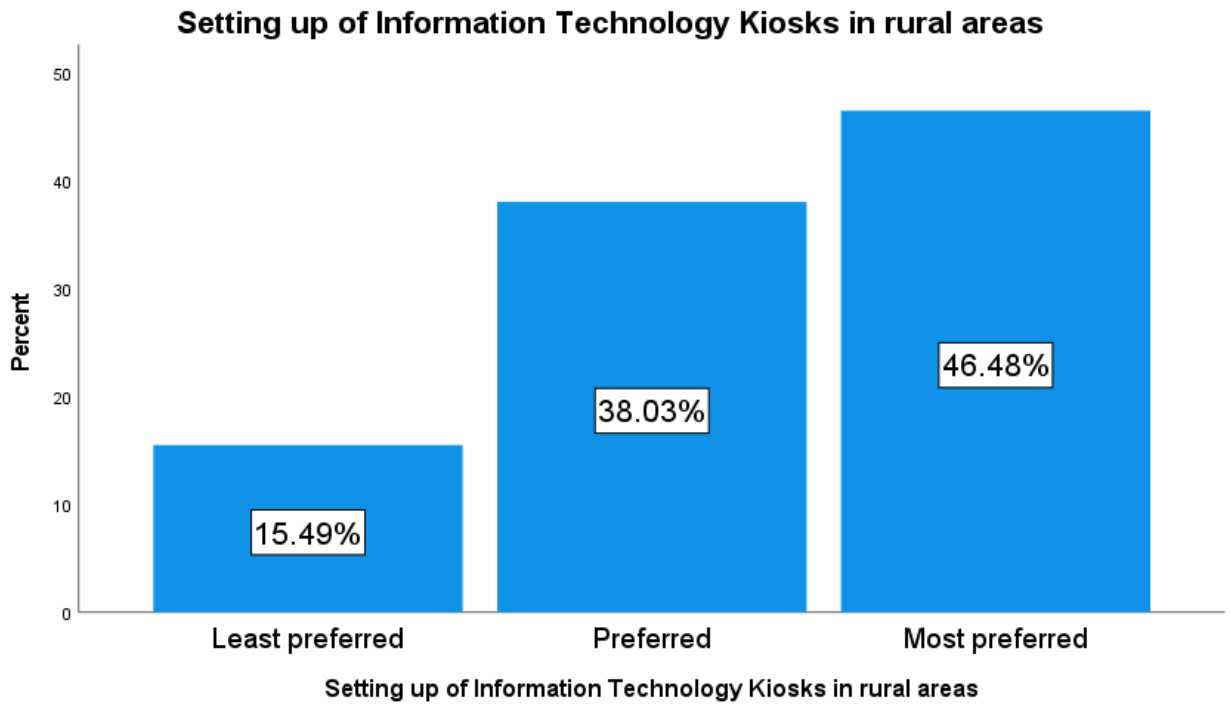


Figure 21: Students preference of setting up of information technology kiosks in rural areas.

The results indicate that (46.48%) of the respondents mostly preferred setting up of Information Technology Kiosks in rural areas, (38.03%) preferred and (15.49%) least preferred setting up of Information Technology Kiosks in rural areas. In my own view this maybe because most of the students come from rural areas and another possible reason could be the fact that such kiosks are playing an important role in conveying information and they are rarely available.

4.5.11 Students preference in dairy enterprise

Respondents were asked to indicate their preference in dairy enterprise. The findings are reflected in Figure 22.

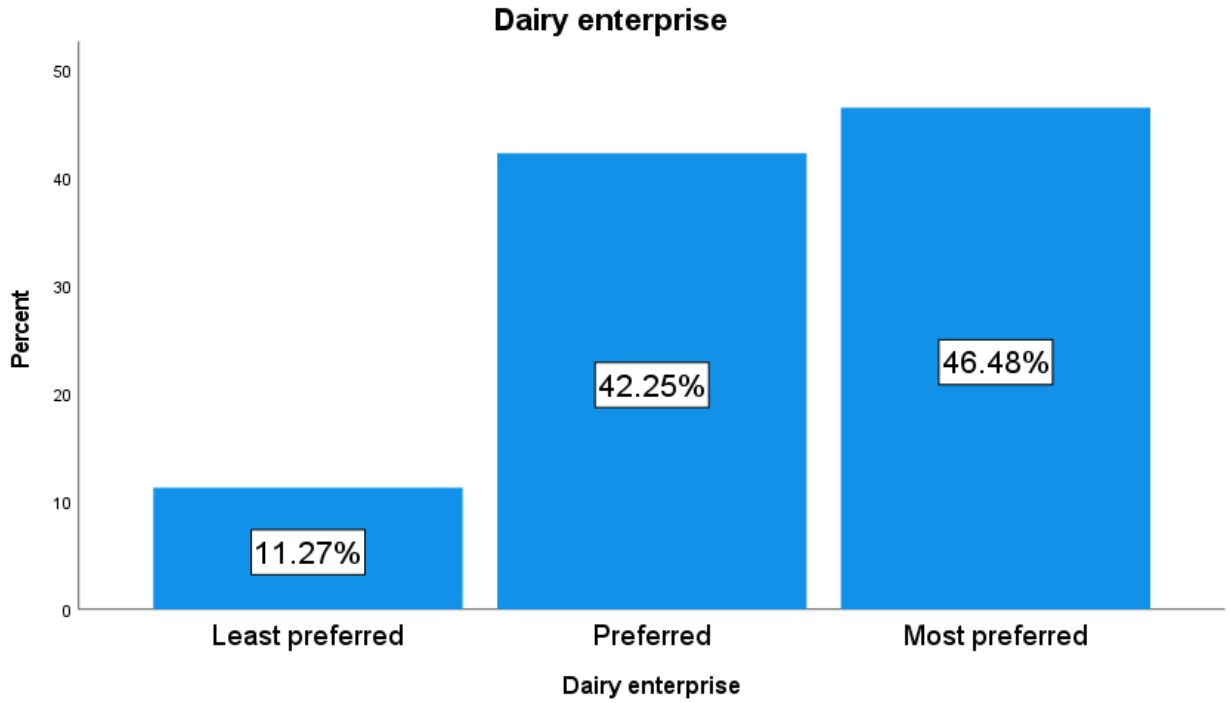


Figure 22: Students preference in dairy enterprise

Figure 22 shows that (46.48%) of the respondents mostly preferred starting a dairy enterprise, (42.25%) preferred and (11.27%) least preferred starting a dairy enterprise.

This perception can be explained by the fact that Bachelor of Science in Animal production on the fourth year has a module called SANA042 which deals with the anatomy & physiology of dairy cows, mechanism of milk synthesis and secretion, factors influencing milk yield, dairy nutrition: calves, replacement heifers and dairy cows, dairy production systems, dairy animal health management programs and management of dairy animals. In my view students mostly preferred dairy enterprises (46.48%) because they see potential in dairy enterprises.

4.5.12 Students preference in poultry enterprise

Respondents were asked to indicate their preference in poultry enterprise. The findings are reflected in Figure 23.

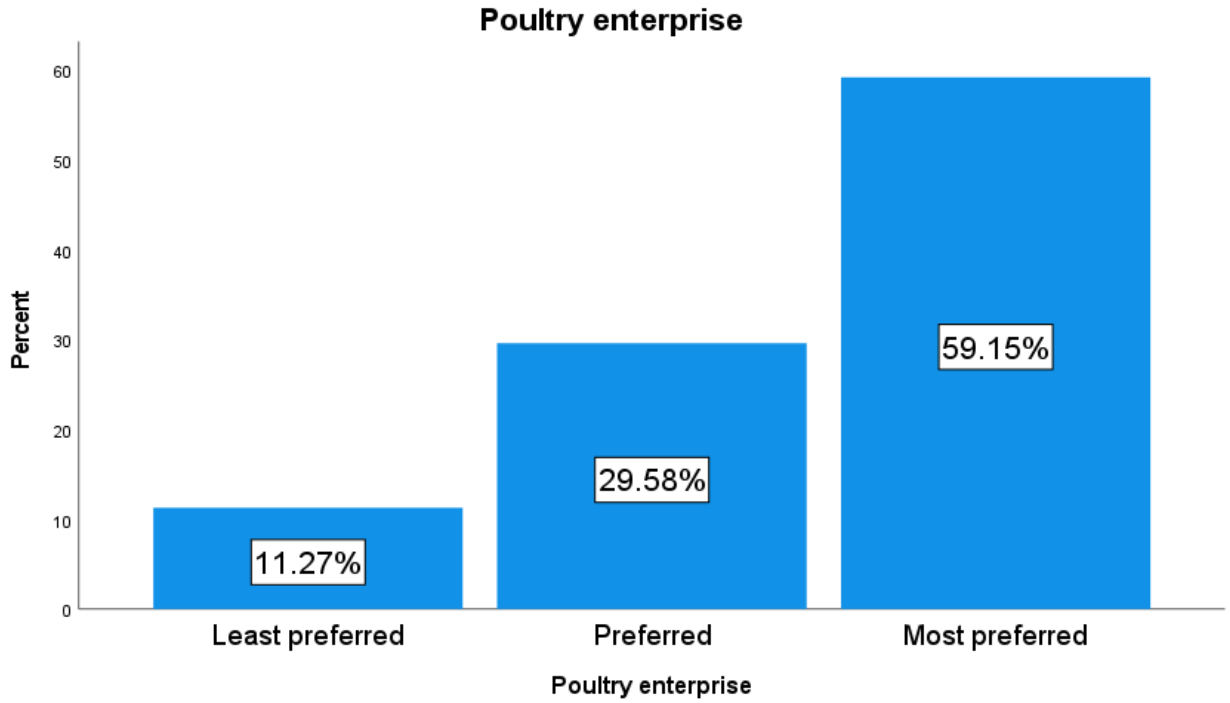


Figure 23: Students preference in poultry enterprise

The results indicate that a huge majority (59.15%) of the students as reflected in Figure 23 mostly preferred starting a poultry enterprise, while a small percentages showed least preferred (11,27%).

This perception can be explained by the fact that Bachelor of Science in agricultural economics and Bachelor of Science in animal production in third year has a module called SANB031 which deal with nutrition of poultry, reproduction of poultry, management of poultry, nutrition of pigs, reproduction of pigs and management of pigs. Also Bachelor of Agricultural Management in first year has a module called Introduction to Animal Science which deals which aims to equip students to be able to recognize the different classes of livestock and their functional characteristics/traits. Describe environmental factors affecting livestock production in tropical and subtropical countries. Explain the historical domestication of farm animals and their importance to humans, especially in tropical and subtropical countries. And in third year it has a module called Animal Health which deals with regulations and acts governing animal health, causes, symptoms, prevention and treatment of major farm animal diseases, routine animal health management practices, toxicology, animal handling techniques, handling and storage of drugs and poisons. Also in third year a module called Farm Animal Management which deals

with nutrition of all farm animals, reproduction of all farm animals and management of all farm animals.

4.5.13 Students' preference of post-harvest management centers for grading

Respondents were asked to indicate their preference in post-harvest management centers for grading. The findings are reflected in Figure 24.

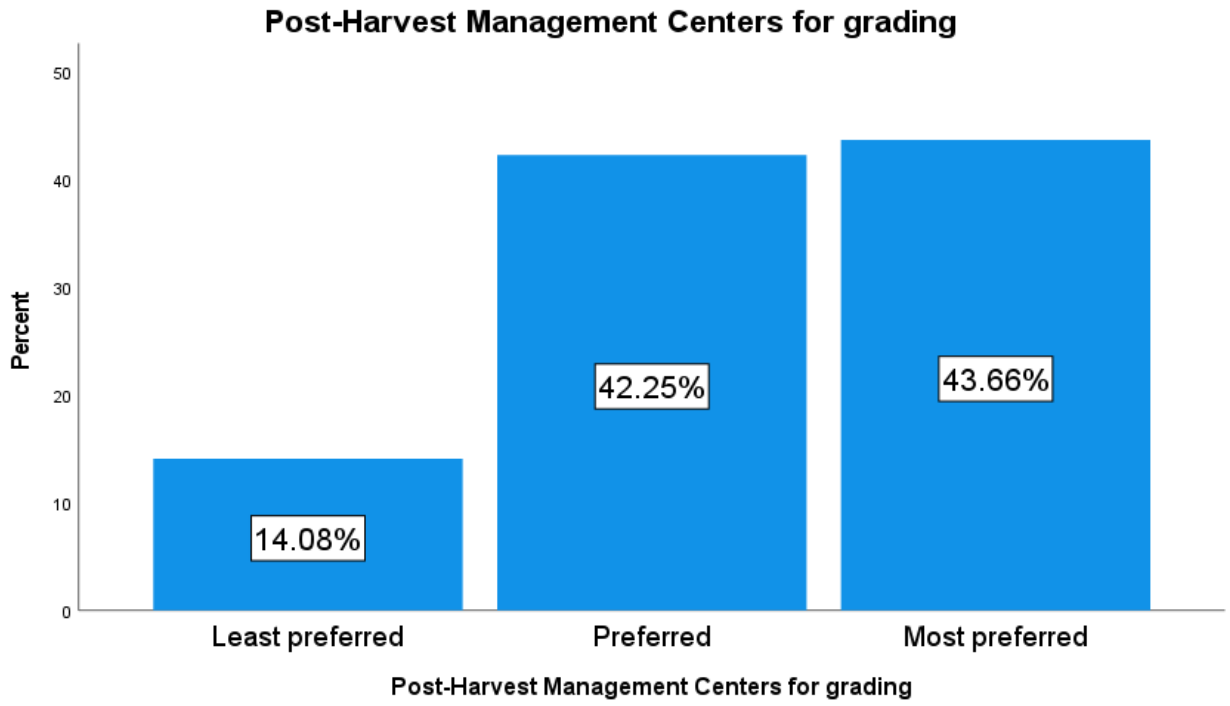


Figure 24: Students' preference of post-harvest management centers for grading

Figure 24 show that (43.66%) of the students mostly preferred starting post-harvest management centers for grading agribusinesses, (42.25%) preferred and (14.08%) least preferred starting a post-harvest management centers for grading agribusiness.

This performance is not surprising because Bachelor of Science in Plant Production in forth year has a module called Post-Harvest Technology which deals with Introduction to postharvest technology, definition and importance, postharvest losses of agricultural products: cause of losses, loss assessment and methods of reducing loses, biological, physiological and environmental factors affecting shelf life, environmental factors influencing deterioration, postharvest technology procedures, storage systems: pre-cooling and cooling systems, postharvest pathology, food safety: philosophy of control, traceability and assurance, good agricultural practices,

HACCP and GLOBALGAP. It seems the SAES provide enough theoretical knowledge about soil water quality inputs testing laboratories to the student's just for them to work for companies, buts fails to provide knowledge and skills about how to use this knowledge to establish agri-businesses. That why some students least preferred soil and water testing laboratories agribusiness.

4.5.14 Students' preference of setting up storage and packing structures

Respondents were asked to indicate their preference in setting up storage and packing structures. The findings are reflected in Figure 25.

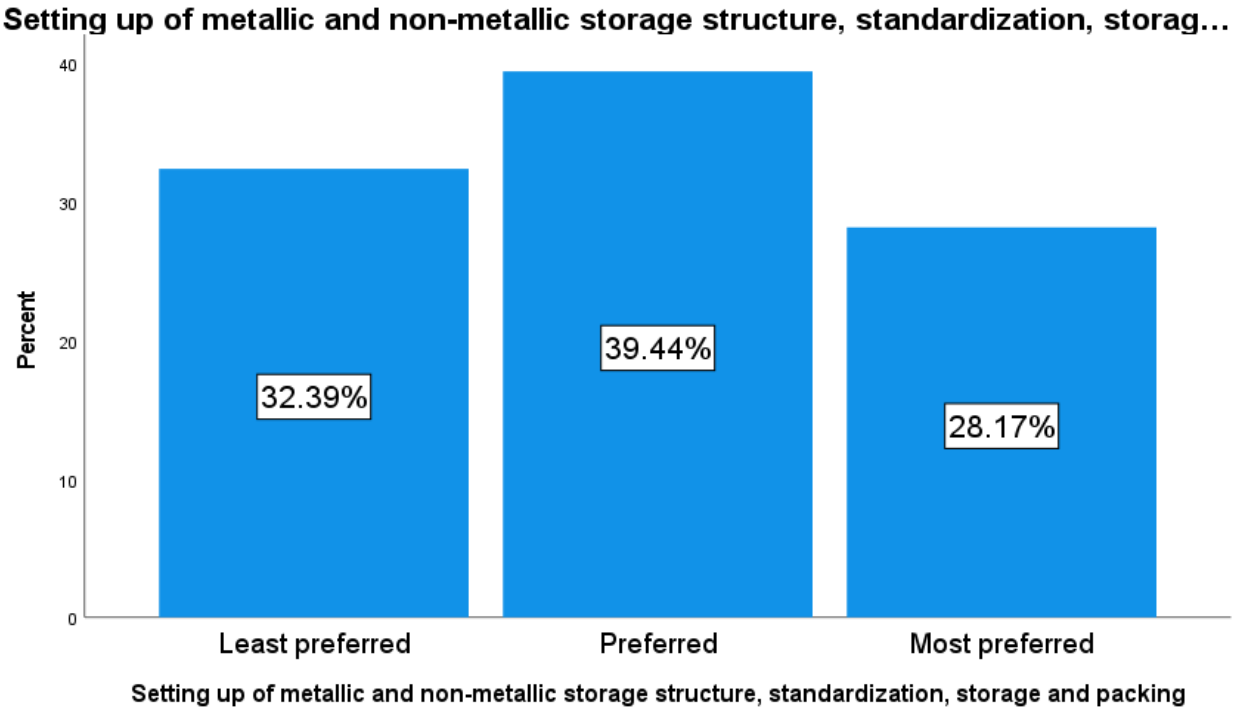


Figure 25*:* Students' preference of setting up storage and packing structures

The results show that (39.44%) of students preferred, while (32.39%) least preferred and (28.17%) most preferred setting up of metallic and non-metallic storage structure, standardization, storage and packing enterprises.

Bachelor of Science in Plant Production in second year has a module called Introduction to Agricultural Mechanization which deals with introduction to farm machinery including the principles of tractors and animal power technologies operations, crop processing technologies and mechanization systems for agricultural production and processing (including storage and drying systems). Characteristics of

agricultural mechanization, cropping practices and yet see how they relate to the natural sciences and other agricultural disciplines. In my view the SAES provide enough theoretical knowledge about soil water quality inputs testing laboratories to the student's just for them to work for companies, buts fails to provide knowledge and skills about how to use this knowledge to establish agri-businesses.

4.5.15 Students preference of retail marketing outlets for processed agri-products

Respondents were asked to indicate their preference in retail marketing outlets for processed agri-products. The findings are reflected in Figure 26.

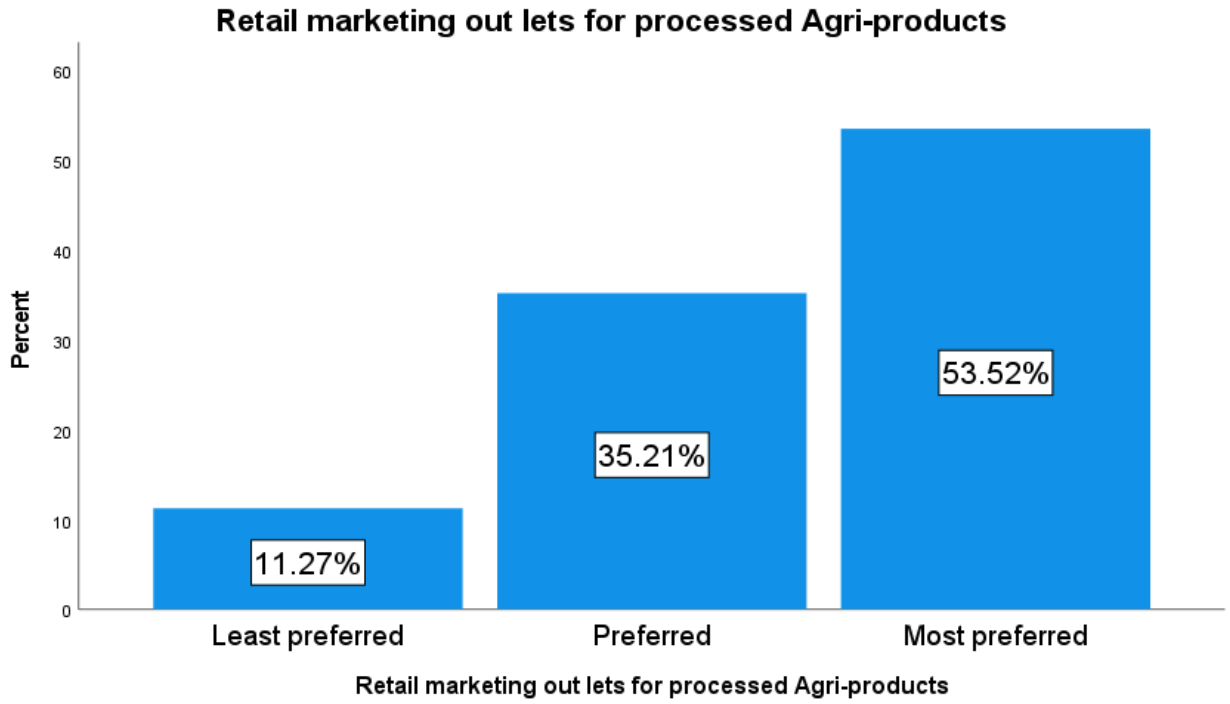


Figure 26: Students preference of retail marketing outlets for processed agri-products

The results show that (53.52%) of the students mostly preferred starting retail marketing outlets for processed agri-products, (35.21%) preferred and (11.27%) least preferred starting retail marketing outlets for processed agri-products agribusiness.

Bachelor of science in agricultural economics in third year and Bachelor of Agricultural Management and Bachelor of Agricultural Management both in second year have a module called SAGD031 (Intermediate Agricultural Marketing) which deals with Introduction to agricultural and food marketing, market structures and the competitive environment, approaches to the study of marketing, prices analysis and marketing margins, functional and organizational issues in marketing, government intervention in agricultural markets, selected commodity markets in South Africa and overview of South Africa marketing policy. In my view the SAES provide enough theoretical knowledge about soil water quality inputs testing laboratories to the student's just for them to work for companies, buts fails to provide knowledge and skills about how to use this knowledge to establish agri-businesses.

4.5.16 Students preference on dealership of farm inputs in rural areas.

Respondents were asked to indicate their preference in dealership of farm inputs in rural areas. The findings are reflected in Figure 27.

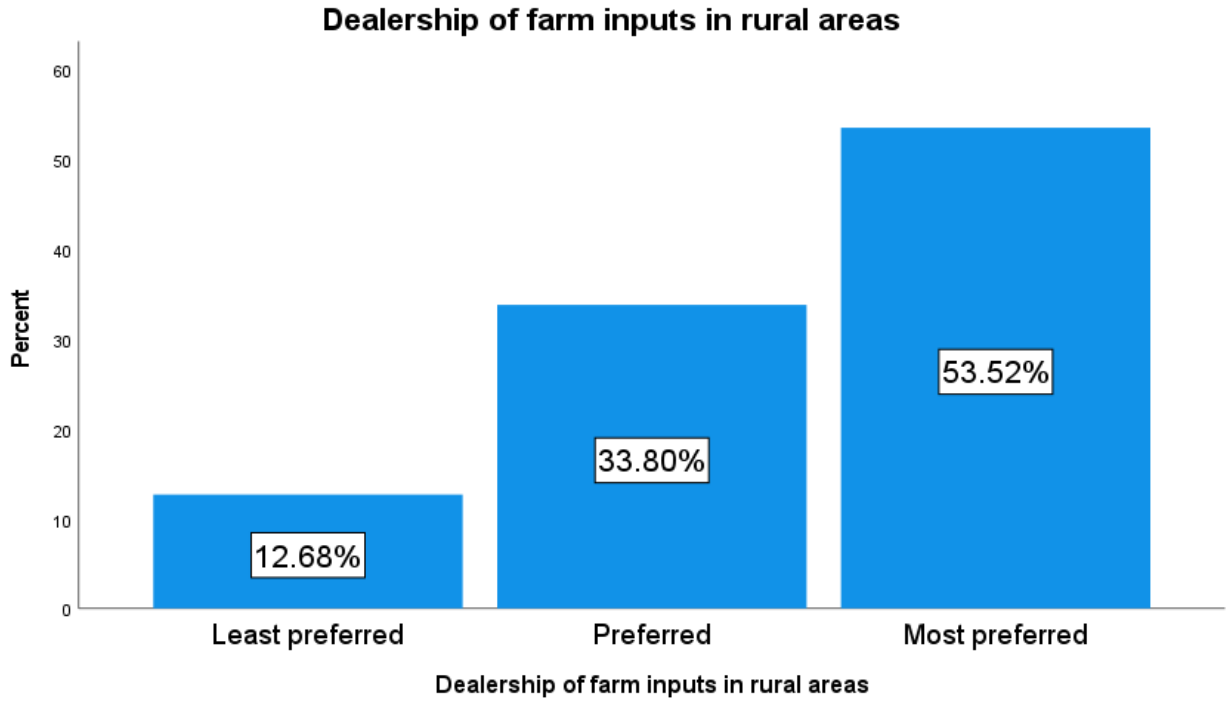


Figure 27: Students preference on dealership of farm inputs in rural areas.

Figure 27 indicates that (53.52%) of the students mostly preferred starting a dealership of farm inputs in rural areas, (33.80%) preferred and (12.68%) least preferred starting a dealership of farm inputs in rural areas.

The reason for this high performance of more than (50%) could be explained by the fact that Bachelor of Science in Plant Production and Bachelor of science in Animal production and Bachelor of Science in agricultural economics second year has a module called Introduction to Agricultural Mechanization which deals with Introduction to farm machinery including the principles of tractors and animal power technologies operations, crop processing technologies and mechanization systems for agricultural production and processing (including storage and drying systems). Characteristics of agricultural mechanization, cropping practices and yet see how they relate to the natural sciences and other agricultural disciplines.

The three points Likert Scale as ‘least preferred’, ‘preferred’ and ‘most preferred’ was utilized to measure the most preferred and least preferred agribusiness enterprises. The results indicated that approximately (62%) of the students preferred starting facilitation and agency of agricultural insurance savings, followed by poultry enterprise and provision of extension consultancy services which was both at approximately (59%). Also approximately (53%) of the respondents mostly preferred venturing into enterprises like dealership of farm inputs in rural areas and retail marketing out lets for processed agri-products. In my view the SAES provide enough theoretical knowledge about soil water quality inputs testing laboratories to the student’s just for them to work for companies, buts fails to provide knowledge and skills about how to use this knowledge to establish agri-businesses. That why some students least preferred soil and water testing laboratories agribusiness.

The results also shown that approximately (42%) of the student’s least preferred setting up of apiaries and honey product processing, approximately (38%) least preferred venturing into micro propagation through plant tissue culture labs, furthermore approximately (33%) least preferred setting up of metallic and non-metallic storage structure, standardization, storage and packing. This result is similar to that of Zakaria *et al.,* (2014) in their study on perception of agricultural students of University for Development Studies.

4.6 Perceived barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum.

Respondents were asked statements related to their perceived barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum. The findings are reflected in Table 5.

Table 5: Perceived barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum.

Statement	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Chi-Square
1. It is easy to create self-employment in agribusiness	38%	28%	28%	3%	3%	0.833
2. Agricultural related enterprises are very lucrative	3%	10%	10%	51%	27%	0.051
3. Agribusiness has a high potential to self - employment in South Africa	3%	3%	10%	38%	46%	0.059
4. Many South Africans have made a lot of fortunes from agriculture	4%	7%	15%	34%	39%	0.015
5. Agribusiness have high prospects of success in South Africa	0%	3%	11%	46%	39%	0.384
6. Agriculture in South Africa have a lot of untapped potential	6%	7%	10%	37%	41%	0.143
7. Government policies favors agricultural enterprise creation	18%	31%	1%	41%	9%	0.654

by the youth						
8. Agriculture is a less risk business enterprise in South Africa	52%	24%	4%	18%	1%	0.230
9. Agriculture is a business not a way of life	44%	13%	4%	30%	10%	0.135
10. I made the right choice by pursuing agriculture	4%	3%	4%	46%	42%	0.409
11. The University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future	8%	10%	11%	46%	24%	0.013
12. The University of Limpopo Agricultural practical's offered me a valuable experience to engage in agribusiness	10%	25%	7%	39%	18%	0.013
13. I have the requisite technical knowledge to be a successful agricultural	7%	10%	11%	37%	35%	0.043

entrepreneur						

Different statements were checked against the respondents. The purpose was to test the statement in terms of utilizing chi-square.

4.6.1 Creating self-employment in agribusiness is easy

Respondents were asked to indicate whether they agree with this statement that say “It is easy to create self-employment in agribusiness”. The results show that (66%) disagree with the statement with (38%) strongly disagreeing. The Chi-Square test was used to test for association between the statement that” It is easy to create self-employment in agribusiness” and type degree studying. However, the Chi-Square statistic (p=0.833, which is greater than 0.05) shows there is no association.

4.6.2 Lucrative of agriculture

Respondents were asked to indicate how they feel about the lucrative of agriculture. The results indicate that (77%) agree with the statement that “Agricultural related enterprises are very lucrative” with (26%) strongly agreeing. The Chi-Square test was used to test for association between with the statement that” Agricultural related enterprises are very lucrative” and degree studying. However, the Chi-Square statistic (p=0.051) shows there is no association.

4.6.3 Potential of agriculture

Respondents were asked to indicate whether they agree with this statement that say: “Agribusiness has a high potential to self -employment in South Africa” The results indicate that (85%) agree with the statement that with (46%) strongly agreeing. The Chi-Square test was used to test for association between the said statements. However, the Chi-Square statistic (p=0.059) shows that there is no association.

4.6.4 Making fortunes from agriculture

Respondents were asked to indicate their feelings about the statement that say “Many South Africans have made a lot of fortunes from agriculture”. The results show that (73%) agree with the statement, and (39%) strongly agreeing. The Chi-Square test was used to test for association between the statement that” Many South Africans have made a lot of fortunes from agriculture” and degree studying. The Chi-Square statistic (p=0.015, which is less than 0.05) shows that there is an association.

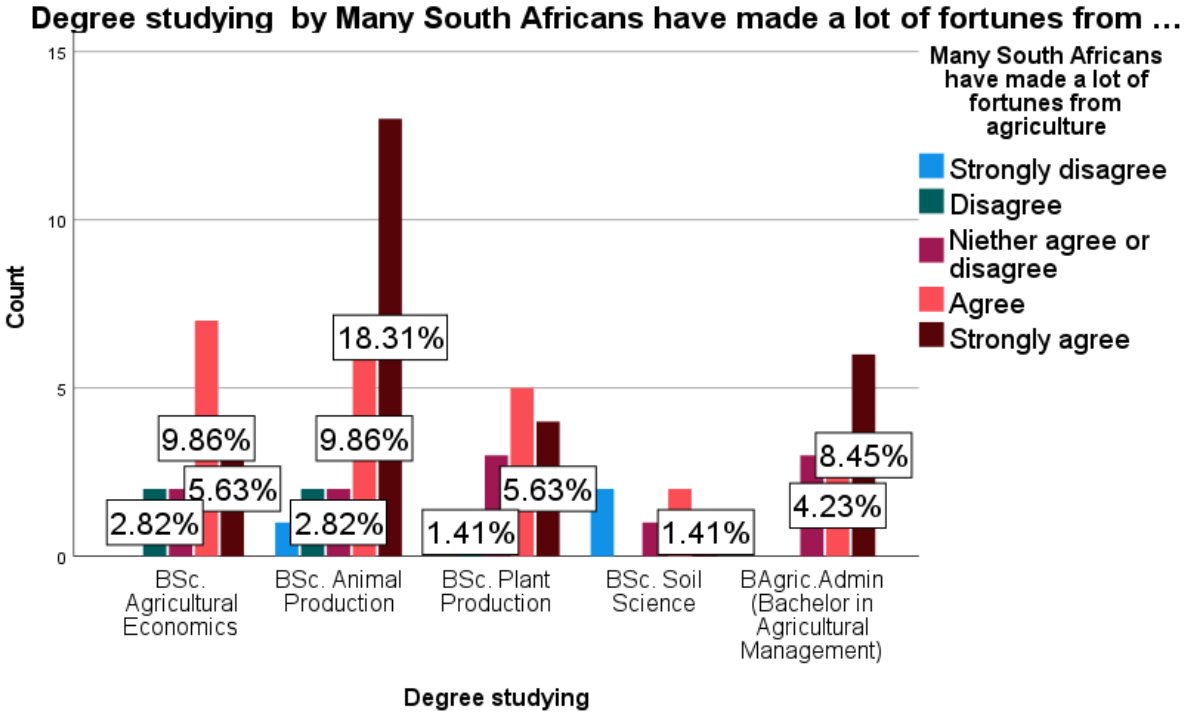


Figure 28: Association between many South Africans have made a lot of fortunes from agriculture and type of degree

Figure 28 shows that (9.86%) agree and (18.31%) strongly agreed when combined (28.17%) who generally agreed with the statement that many South Africans have made a lot of fortunes from agriculture are studying BSc. Animal production compared to the other degrees.

This implies that those who are studying BSc. Animal production are more convinced that many South Africans have made a lot of fortunes from agriculture than those studying BSc. Agricultural Economics, BSc. Plant Production, BSc. Soil Science and BAgric. Admin (Bachelor in Agricultural Management).

4.6.5 Prospects of agribusiness success in South Africa

Respondents were asked to indicate their feelings about the statement that say “Agribusiness have high prospects of success in South Africa”. The results indicate that (89%) agree with (39%) strongly agreeing. The Chi-Square test was used to test for association between with the statement that “Agribusiness have high prospects of success in South Africa” and degree studying. However, the Chi-Square statistic (p=0.384) shows there is no association.

4.6.6 Untapped potential of agriculture

Respondents were asked to indicate their feelings about the statement that say “Agriculture in South Africa have a lot of untapped potential”. The results show that (77%) agree with the statement, with (40%) strongly agreeing. The Chi-Square test was used to test for association between with the statement that agriculture in South Africa have a lot of untapped potential and degree studying. However, the Chi-Square statistic (p=0.143) shows there is no association.

4.6.7 Creation of youth enterprise by the Government policies

Respondents were asked to indicate whether they agree with the statement that says “Government policies favors agricultural enterprise creation by the youth”. The results indicate that (49%) agree and also (49%) disagree with the statement and with (8%) strongly agreeing and (18%) strongly disagreeing. The Chi-Square test was used to test for association between with the statement that” Government policies favors agricultural enterprise creation by the youth” and degree studying. However, the Chi-Square statistic (p=0.654) shows there is no association.

4.6.8 Riskiness of agriculture

Respondents were asked to indicate whether they agree with the statement that says” “Agriculture is a less risk business enterprise in South Africa”. The results show that (76%) disagree with the statement and with (52%) strongly disagreeing. The Chi-Square test was used to test for association between with the statement that” Agriculture is a less risk business enterprise in South Africa” and degree studying. However, the Chi-Square statistic (p=0.230) shows there is no association.

4.6.9 Agriculture is business

Respondents were asked to indicate whether they agree with the statement that says “Agriculture is a business not a way of life”. The results show that (56%) disagree with the statement with (44%) strongly disagreeing and degree studying. The Chi-Square test was used to test for association between with the statement that Agriculture is a business not a way of life. However, the Chi-Square statistic (p=0.135) shows there is no association.

4.6.10 Making the right choice

Respondents were asked to indicate whether they agree with the statement that “I made the right choice by pursuing agriculture”. The results indicate that (89%) agree with the statement and (42%) strongly agreeing. The Chi-Square test was used to test for association between with the statement that” I made the right choice by pursuing agriculture” and degree studying. However, the Chi-Square statistic (p=0.409) shows that there is no association.

4.6.11 University of Limpopo Modules equipping students for success

Respondents were asked to indicate whether they agree with the statement that "The University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future". The results show that (70%) agree with the statement with (23%) strongly agreeing. The Chi-Square test was used to test for association between with the statement that" The University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future" and degree studying. The Chi-Square statistic (p=0.013) shows there is an association.

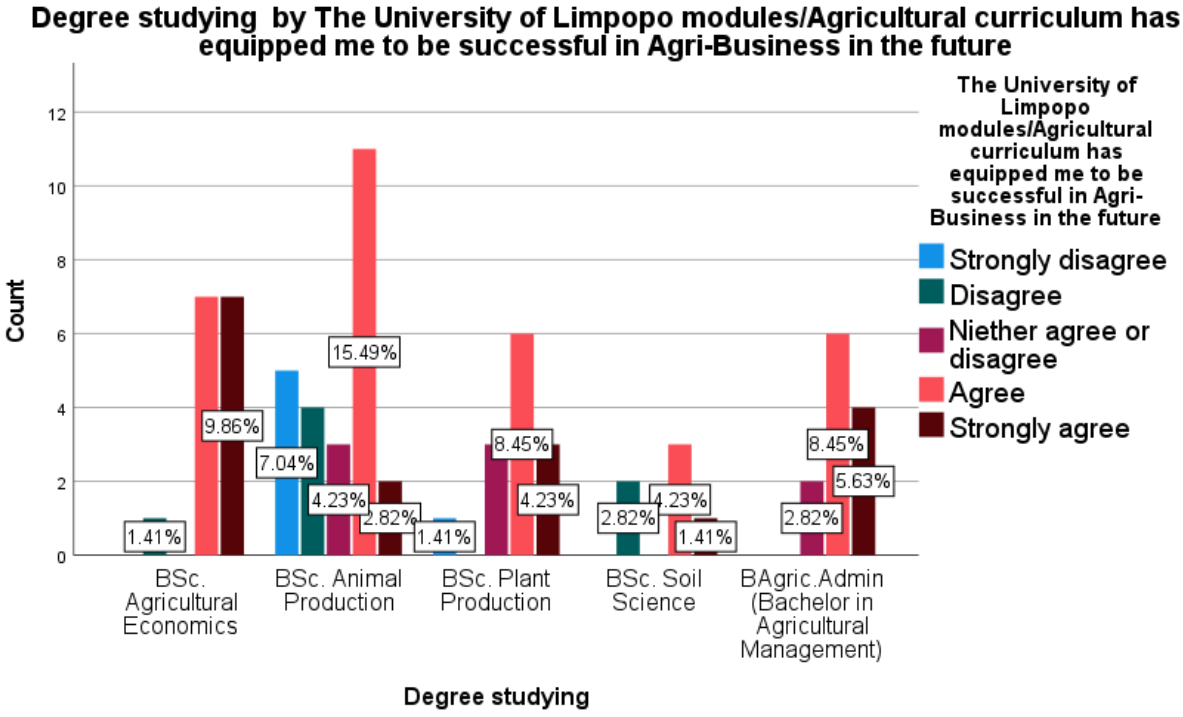


Figure 29: Association between the University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future and degree studying.

Figure 29 shows that (9.8%) agree and (9.8%) strongly agree and when combined (19,6%) generally agreed with the statement that the University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future are studying BSc. Agricultural economics mostly compared with the other degrees.

This implies that those who are studying BSc. Agricultural Economics are more convinced that the University of Limpopo modules/Agricultural curriculum has equipped them to be successful in Agri-Business in the future than those studying BSc. Animal Production, BSc. Plant Production, BSc. Soil Science and B.Agric .Admin (Bachelor in Agricultural Management) . Thus the University might need to consider improving the modules/curriculum for BSc. Soil Science and B. Agric. Admin (Bachelor in Agricultural Management) to equip students to be more successful in Agri-Business in the future or after graduation.

4.6.12 University of Limpopo's practical offering

Respondents were asked to indicate whether they agree with the statement that "The University of Limpopo Agricultural practical's offered me a valuable experience to engage in agribusiness" The results show that (58%) agree with the statement, and with (18%) strongly agreeing. The Chi-Square test was used to test for association between the statement that "The University of Limpopo Agricultural practical's offered me a valuable experience to engage in agribusiness" and degree studying. The Chi-Square statistic (p=0.013) shows there is an association.

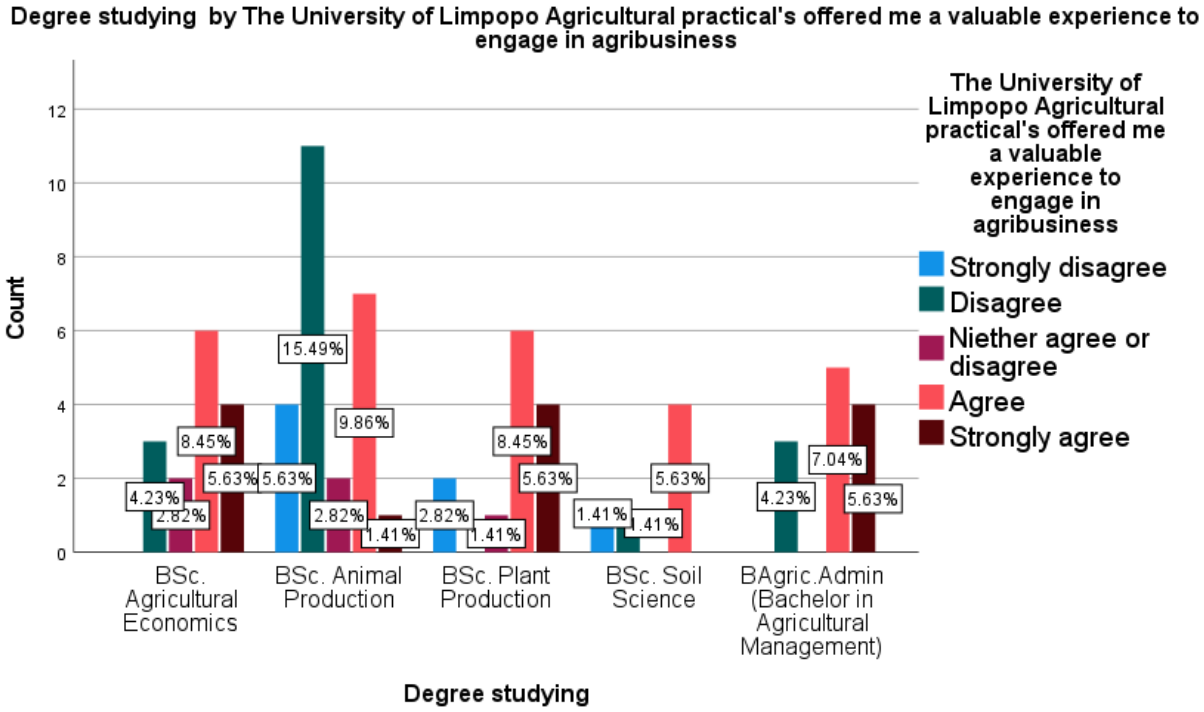


Figure 30: Association between the University of Limpopo agriculture practical's and its valuable experience to engage in agribusiness and degree studying.

Figure 30 shows that (8.45%) agree and (5.63%) strongly agree when combined (14.08%) generally agreed with the statement that the University of Limpopo Agricultural practical's offered me a valuable experience to engage in agri-business are studying both BSc. Agricultural Economics and BSc. plant production both having the highest number of students agreeing compared to the other degrees.

This implies that those who are studying BSc. Agricultural Economics and BSc. Plant Production are more convinced that The University of Limpopo Agricultural practical's offered them valuable experience to engage in agribusiness than those studying BSc. Animal Production, BSc. Soil Science and B.Agric. Admin (Bachelor in Agricultural Management). Thus the university might need to consider improving their practical's for BSc. Animal Production, BSc. Soil Science and B.Agric. Admin (Bachelor in Agricultural Management) to equip students to be more successful in Agri-Business in the future or after graduation.

4.6.13 Having the correct knowledge

Respondents were asked to indicate whether they agree with the statement that "I have the requisite technical knowledge to be a successful agricultural entrepreneur" The results indicate that (71.8%) agree with the statement with (35.2%) strongly agreeing. The Chi-Square test was used to test for association between with the statement that that" I have the requisite technical knowledge to be a successful agricultural entrepreneur" and degree studying. The Chi-Square statistic ($p=0.043$) shows there is an association.

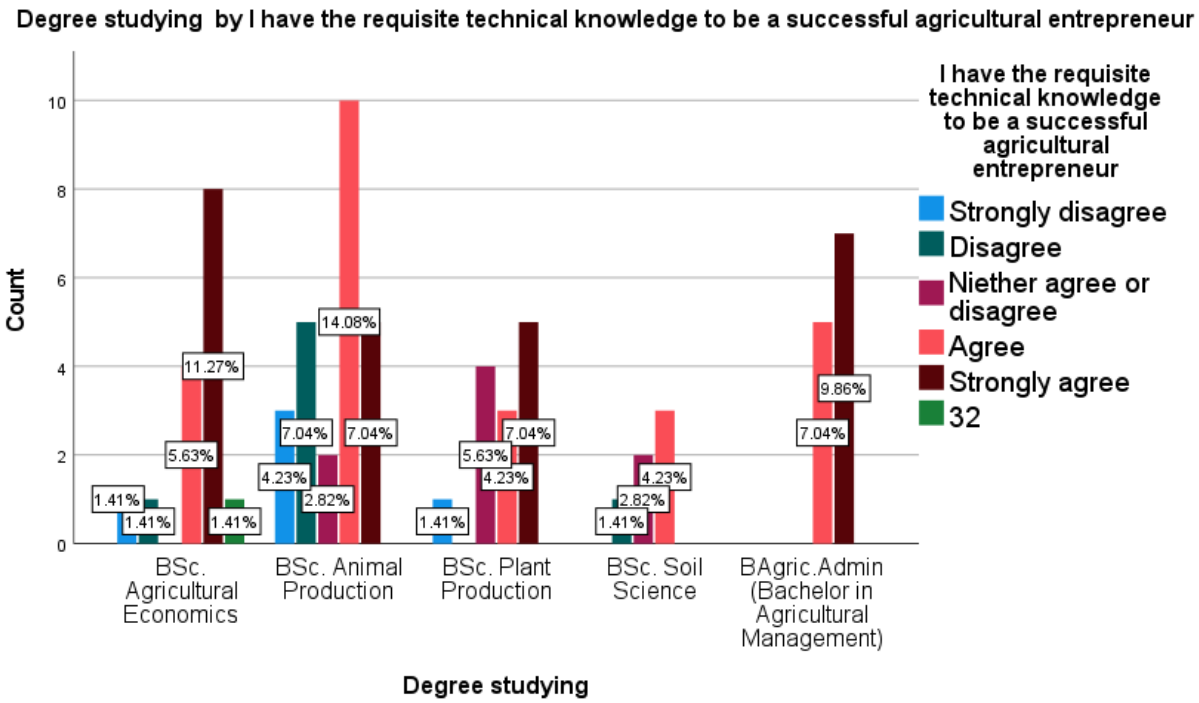


Figure 31: Association between students have the requisite technical knowledge to be a successful agricultural entrepreneur and degree studying.

Figure 31 shows that (14.08%) agreed and (7.04%) strongly agreed while combined (21,12%) generally agreed agreed with the Statement that I have the requisite technical knowledge to be a successful agricultural entrepreneur are studying BSc. Animal Production and is more than the other degrees.

This implies that those who are studying BSc. Animal production are more convinced that they have the requisite technical knowledge to be a successful agricultural entrepreneur than those studying BSc. Agricultural Economics, BSc. Plant Production, BSc. Soil Science and B. Agric. Admin (Bachelor in Agricultural Management). Thus the university might need to consider improving the technical knowledge for BSc. Agricultural Economics, BSc. Plant Production, BSc. Soil Science and Bachelor of Agriculture Admin. (Bachelor in Agricultural Management) students for them to have better chances of being successful agricultural entrepreneurs in the future or after graduation.

4.6.14 Open ended questions about challenges regarding entrepreneurial development in Agri-Business.

A number of statements were grouped together asking very important questions about the challenges regarding entrepreneurial development in Agri-Business. The following challenges were listed:

- Lack of market opportunities and funding.
- There is lack of young people in leadership positions.
- Less support from the government.
- Lack of knowledge on institutions that could fund your project and provision of land.
- Corruption & nepotism.
- Many young people have graduated but they lack better skills because their modules were of theoretical not much of practical especially in their undergraduate degrees.
- Lack of information and stereotypes.
- Risks related to the environment.
- Lack of entrepreneurial skills.

4.6.15 Recommendations to overcome barriers

Respondents were asked to suggest recommendations identified to overcome the barriers. The following recommendations were listed:

- Students should be given funds to start their own small projects that they take care of e.g. each plant production student has a portion of land and be given seeds to plant crops and take care of them until they reach the market. Then grades be allocated according to the revenue made and techniques used.
- The University should have agri-business based curriculum.
- The University should provide students with more information on where to access funding and land application, and there should be organizations which purely focus agribusiness.
- The University should invite entrepreneurs to share their stories/thoughts /ideas with students on how they made it.

- There should be modules that are about agricultural entrepreneurial development, how to start a business, what is needed and what must be done in every Agriculture Degree within the university.
- There should be proper marketing facilities.
- There should be efforts to correct the stereotype which says that farming is a profession for illiterate people, as well as making agriculture fashionable through media.
- There should be workshops whereby students get to learn about the importance of entrepreneurship. Also by providing startup capital for those graduates that have a great and viable business plan, and that there should be competition whereby the 10 top business ideas win funding and mentorship on an annual basis.

4.6.15 Issues with the motivation

Respondents were asked to indicate their thoughts on what motivate a student to pursue self-employment in Agri-Business. Their responses included the following:

- Unemployment & creating employment.
- Being more involved practically in terms of visiting different farms, packing facilities and different enterprises, as this motivates them to start their own one day.
- The potential of the sector is very big and economically viable.
- It's more of a matter of interest and passion but also they can be motivated by being given the opportunity to work with people that are already in the entrepreneurial business in agriculture.
- Being their own boss.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of this chapter is to provide a summary of the findings, the conclusions and the recommendations based on the findings of the study.

5.2 Summary

The main focus of the study was to analyze the perceptions held by the final year agriculture students in the University of Limpopo towards creating self-employment in agribusiness upon completion of their degrees. The specific objectives were: to describe the socio-economic characteristics of students studying agriculture, to analyze the perception of agriculture students towards self-employment in agribusiness, to identify type of agribusiness preferred by the students and to identify barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum.

The objectives of the study were fully addressed. Statistical Package for the Social Sciences (SPSS) was used for entering and organizing data collected and descriptive statistics which comprises of frequencies and percentages was used to determine the socio-economic status of the students. The study found that most of the respondent were aged between 21-27 years old, majority of them were doing a degree in animal production, most of the students were females, most of the students come from households with 4-6 family members, majority of the students come from rural areas, most of the students had no relatives owning a business, most of the respondents had no access to farming land, and about half of the respondents had no farming experience.

With regards to the perceptions held by University of Limpopo agricultural students towards self-employment in agribusiness, a total of 24 statements were used in a Likert scale to capture data on perceptions. From this number of 24, a total of 14 statements were negative and 10 were positive in measuring perception. The statements are presented here starting with the positive statement students agreed with which included the following:

Agribusiness is part of my everyday life, agribusiness is very key to my community, farmers are notable people, farming is sustainable, agriculture graduates have necessary skills for Entrepreneurship, there is the potential of the agricultural based entrepreneurship in South Africa and entrepreneurship is effective in reducing unemployment.

As far as the negative statements are concerned, the respondents disagreed with the following negative perception statements towards agriculture: farming is tedious, it does not bring daily income like other jobs, farmers still use crude implements, respondents prefer other degrading jobs than engaging in agriculture, farm work is dirty job, agribusiness cannot be completely depended on, farming is regarded as a dumping ground for people that could not secure non- agricultural jobs, agribusiness is a waste of time that can be used for other promising activities, farming is for poor people, farming is not appealing because its dirty work, farming is a stepping stone to other careers, it is the duty of government to create jobs for agriculture graduates and profitability in farming is very low.

Descriptive statistics such as mean was used to analyze the most preferred agribusiness enterprise among agricultural students. The results show that most of the students preferred starting facilitation and agency of agricultural insurance savings (62%), followed by poultry enterprise (59%) and provision of extension consultancy services (59%).

In order to identify barriers and motivators regarding self-employment in agribusiness in the agricultural curriculum. SPSS was used to generate descriptive statistics in the form of percentages and it was also used to perform the Chi-Square analysis for association between the barriers and motivators regarding self-employment in agribusiness and degree types. Thirteen (13) statements were presented to students, those statements students disagreed with were taken as barriers ad those statements they agreed with were seen as motivators.

The respondents agreed with the following statements in turn regarding them as motivators to pursue self-employment in agribusiness:

That agricultural related enterprises are very lucrative with (78%) respondents agreeing, agribusiness has a high potential to self -employment in South Africa (84%), many South Africans have made a lot of fortunes from agriculture (73%).

agribusiness has high prospects of success in South Africa (89%), agriculture in South Africa have a lot of untapped potential (77%), respondents made the right choice by pursuing agriculture (89%), the University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future (70%), the University of Limpopo Agricultural practical's offered me a valuable experience to engage in agribusiness (58%) and respondents have the requisite technical knowledge to be a successful agricultural entrepreneur (72%).

The respondents disagreed with the following statements in turn regarding them as barriers to pursue self-employment in agribusiness: That it is easy to create self-employment in agribusiness (66%), agriculture is a less risk business enterprise in South Africa (76%) and agriculture is a business not a way of life (56%). The Chi-Square analysis found out that the following perceived barriers and motivators were associated with the type of degree students were studying: That many South Africans have made a lot of fortunes from agriculture, the University of Limpopo modules/Agricultural curriculum has equipped me to be successful in Agri-Business in the future, it is easy to create self-employment in agribusiness, i have the requisite technical knowledge to be a successful agricultural entrepreneur.

5.3 Conclusion

Based on the findings the following conclusions can be drawn from the study. Agricultural students have a positive perception towards self-employment in agribusiness. Majority of the respondents are at the productive age which can be explored in the agriculture sector. The findings show that more and more woman are participating in agriculture even more than their male counterparts. The results also show that family influence plays an important role in agriculture students decision to establish ventures in agribusiness for self-employment, most of the youth don't own or have access to farming land this might be due to the fact that majority of them come from medium sized families who earn less than R50 000.00 per annum and there are more female students than male, most South African black cultures and traditions don't allow females to inherit land from their elders land is inherited by

males. Even though a majority of the students come from rural areas a majority of them don't have any farming experience or access/own farming land.

The study also shows that students of the institution mostly preferred enterprises that are less hands on or less technical(practical). Most of the students wanted agribusiness that will allow them to spend more time planning(theory) than implementing like extension consultancy services and agricultural insurance savings agribusiness. The findings could be attributed to the fact that the SAES vision and mission is to be innovative leaders in finding sustainable solutions for Agricultural and Environmental needs in Africa. Also to produce competitive Agricultural and Environmental professionals in Southern Africa through innovative teaching, research and community engagement.

Even though the SAES does offer a module called introduction to agricultural extension in various degrees it is safe to say the school does not focus on developing graduates to establish their own agri-businesses after graduation but instated they focus on developing them to work at already established agribusinesses and institutions as professionals. But this might also be due to the fact that most of the respondents do not have access to land, or finances or no previous farming experience that could why they preferred establishing businesses that will allow them to act as intermediates or offer support to farmers.

When it comes to barriers and motivators to self-employment in agribusiness, the study shows that final year agriculture students at the University of Limpopo are highly motivated to venture into agribusiness and they are aware of the barriers they would face. Yet they are still willing to venture in self-employment in the agriculture sector, if some of the key issues are addressed this might be due to the current high rates of youth unemployment in South Africa. It was also found that the type of degree the students are studying have an influence on the perceived motivators and barriers towards self-employment in agribusiness. Students doing BSc. Animal production are more convinced that many South Africans have made a lot of fortunes from agriculture, that they have the requisite technical knowledge to be a successful agricultural entrepreneur. Students studying BSc. Agricultural economics highly believe that the University of Limpopo modules/Agricultural curriculum has equipped them to be successful in Agri-Business in the future. Both students from BSc.

Agricultural economics & BSc. Animal production are more convinced that the University of Limpopo Agricultural practical's offered me a valuable experience to engage in agribusiness. The question is "what is incorporated in both BSc. Agricultural economics & BSc. Animal production curriculum that results in students being more motivated to pursue self-employment in agribusiness than the other degrees?".

5.4 Recommendations

South African government faces a challenge of improving youth participation in the agriculture industry and producing youth entrepreneurs with the skills and knowledge to establish successful agribusiness to help curb the high rate of youth unemployment. The SAES and the University of Limpopo faces a challenge of producing graduate with the mind-set, skills and knowledge to venture in self-employment in agribusiness. Youth participation in agribusiness and agriculture graduate self-employment in agribusiness will only be realised when:

- The University of Limpopo needs to introduce agribusiness in the curriculum on every agriculture related degree. By providing students with knowledge on entrepreneurship, searching for and evaluation of business opportunities.
- The University of Limpopo should provide more training in practical's and provide more hands-on-experience.
- Development of easily accessible ready-to-market and agricultural commodity distribution centres will inspire more young people to move into farming.
- The University of Limpopo has to organize local successful entrepreneur's guest lecture for their students.
- First preference needs to be given to agriculture graduates when offering sponsorship, grants, agribusiness loans and even leasing out Government farms.
- The University needs to produce more research on how to promote youth participation in agriculture especially establishing agribusiness.

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RESEARCH QUESTIONNAIRE

Google version link: PERCEPTIONS HELD BY UNIVERSITY OF LIMPOPO AGRICULTURAL STUDENTS TOWARDS SELF-EMPLOYMENT IN AGRIBUSINESS (google.com)

The questionnaire on the perceptions held by University of Limpopo Agricultural students towards Self-employment in Agribusiness.

Information Sheet and Informed Consent Form

My name is Bheki Prince Dlamini, I am a Masters student doing Agricultural extension at the University of Limpopo. I am working with the approval of my supervisor Prof. E.M Zwane. I am doing a study on perceptions held by University of Limpopo agricultural students towards self-employment in Agribusiness.

I would like to invite you to participate in this research

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

- Your participation is completely voluntary.
- All the information that you have provided will remain confidential.
- You have the right to withdraw from the study at any point without penalty.
- There is no direct risk of physical and legal harm in this study.
- You are free not to answer any questions that make you uncomfortable.

I am asking you to complete this questionnaire which will take approximately 30 minutes/less. The questionnaire will be used for research purposes. This means that

your words will be quoted but as mentioned before nobody will be able to identify who was speaking. Furthermore, the names that you mention will be deleted.

INSTRUCTIONS

1. Please answer the following questions as best as you can.

2. Feel free to use your own language.

If you have any additional concerns or questions please contact my supervisor, Prof E.M Zwane, email: elliot.zwane@ul.ac.za

SECTION A: DEMOGRAPHY

1. What is your age?

a) 14-20	
b) 21-27	
c) 28-35	
d) 36-42	
e) 49 and above	

2. Which degree are you currently busy with?

BSc. Agricultural Economics	
BSc. Animal Production	
BSc. Plant Production	
B Sc. Soil Science	
BAgric.Admin(Agricultural Management)	

3. What is your gender?

a) Male	
b) Female	

4. What is your Race?

a) Black	
b) White	
c) Colored	
d) Indian	
e) Other	

5. What is your type of family?

a) Nuclear Family	
b) Joint Family	

6. What is your parent's educational qualification?

Education level	Mother	Father
a) Illiterate		
b) Foundation phase		
c) Intermediate and senior phase		
d) Further Education and Training phase		
e) Graduation and Above		

7. What is your residence area?

a) Rural area	

b) Town	
c) City	

8. Your parent's occupation?

Occupations	Mother	Father
a) Civil servant		
b) Farmer		
c) Business		
d) Teacher		
e) House wife		
f) Other		

9. Do you have farming experience?

a) Yes	
b) No	

10. Do you have any relative owning a business?

a) Yes	
b) No	

If YES, what type of business is it?_____

11. What is your parent's annual income?

a) <R50 000	
b) R51 000-R100 000	
c) R101 000-R150 000	
d) R151 000-R200 000	
f) R251 000>	

12. What is your household size?

a) 1-3	
b) 4-6	
c) 7-9	
b) 10>	

13. How many years of farming experience?

a) None	
b) 1-2	
c) 3-5	
d) 5-10	
e) 10 & above	

14. Do you have access to farming land/ own some land?

a) Not owning any land	
b) Own some land	

SECTION B: PERCEPTION OF STUDENTS TOWARDS SELF-EMPLOYMENT IN AGRI-BUSINESS.

STATEMENT ON PERCEPTION OF STUDENT TOWARDS SELF-EMPLOYMENT IN AGRI-BUSINESS	**1**	**2**	**3**	**4**
a) Agribusiness is part of my everyday life				
b) Agribusiness is very key to my community				
c) Farmers are notable people				
d) Farming is not laborious				
e) Farming is sustainable				
f) Farming is tedious				
g) It does not bring daily income like other jobs				
h) Farmers still use crude implements				
i) I prefer other degrading jobs than engaging in agriculture				
j) Farm work is dirty job				
k) Agribusiness cannot be completely depended on				
l) Farming is regarded as a dumping ground for people that could not secure non- agricultural jobs				
m) Agribusiness is a waste of time that can be used for other promising activities				
n) Farming is for poor people				
o) Farming is not appealing because its dirty work				

p) Farming is a stepping stone to other careers				
q) Agriculture graduates have necessary skills for Entrepreneurship				
r) Agricultural students should think about Entrepreneurship				
s) There is the potential of the agricultural based entrepreneurship in South Africa				
t) Entrepreneurship is effective in reducing Unemployment				
u) My family and relative will financial support				
v) It is the duty of government to create jobs for agriculture graduates				
w) Farming requires high capital outlay				
x) Profitability is very low				

Note: Strongly disagree=1, Disagree=2, Agree=3, Strongly agree=4

15. What do you want to see in the course/ Agricultural curriculum to promote students into self-employment in Agri-Business?

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16. Agri-Business can be a solution to youth unemployment do you agree?

a) Yes	
b) No	

Explain why?

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17. What do you think are problems or challenges regarding entrepreneurial development in Agri-Business?

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18. What do you suggest universities should do to promote Agricultural entrepreneurial development?

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SECTION C: TYPES OF AGRI-BUSINESS PREFERRED BY THE STUDENTS

PREFERENCE OF THE AGRI-ENTERPRISE	**1**	**2**	**3**
a) Soil and water quality cum inputs testing laboratories			
b) Repairing, maintenance of custom hiring implements			
c) Seed processing units			
d) Micro propagation through plant tissue culture labs			
e) Setting up of vermiculture units, production of biofertilizers, bio-pesticides, bio-control agents			
f) Setting up of apiaries and honey product processing			
g) Provision of extension consultancy services			
h) Facilitation and agency of agricultural insurance savings			
i) Hatcheries and production of fish, finger lines for aquaculture			
j) Setting up of Information Technology Kiosks in rural areas			
k) Plant propagation and nursery management			
l) Food processing units			
m) Value addition centers			
n) Dairy enterprises			
o) Poultry enterprise			
p) Post-Harvest Management Centers for grading			

q) Setting up of metallic and non-metallic storage structure, standardization, storage and packing			
r) Retail marketing out lets for processed Agri-products			
s) Dealership of farm inputs in rural areas			

Note: Least preferred=1, Preferred=2 and Most preferred=3

19. What do you think will promote self-employment in Agri-Business? Give examples

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20. What do you think motivates a student to pursue self-employment in Agri-Business?

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SECTION D: BARRIERS AND MOTIVATORS REGARDING SELF-EMPLOYMENT IN AGRI-BUSINESS IN THE AGRICULTURAL CURRICULUM.

STATEMENT ON BARRIERS AND MOTIVATORS REGARDING SELF –EMPLOYMENT IN AGRI-BUSINESS	**1**	**2**	**3**	**4**	**5**
a) It is easy to create self-employment in agribusiness					
b) Agricultural related enterprises are very lucrative					
c) Agribusiness has a high potential to self -employment in South Africa					
d) Many South Africans have made a lot of fortunes from agriculture					
e) Agribusiness have high prospects of success in South Africa					
f) Agriculture in South Africa have a lot of untapped potential					
g) Government policies favors agricultural enterprise creation by the youth					
h) Agriculture is a less risk business enterprise in South Africa					
i) Agriculture is a business not a way of life					
j) I made the right choice by pursuing agriculture					
k) The University of Limpopo curriculum has equipped me to be successful in Agri-Business in the future					
l) The University of Limpopo practical's offered me a valuable experience to engage in agribusiness					
m) I have the requisite technical knowledge to be a successful agricultural entrepreneur					

Note: Strongly disagree=1, Disagree=2, Niether agree or disagree=3, Agree=4, Strongly agree=5

21. What are the main barriers towards choosing self-employment in Agri-Business?

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22. Do you think a person's background matters when it comes to choosing self-employment or staring an Agri-Business?

a) Yes	
b) No	

Explain why?

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……

Thank you

ETHICAL CLEARANCE

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TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: 05 March 2020

PROJECT NUMBER: TREC/34/2020: PG

PROJECT:

Title:	Perceptions Held by University of Limpopo Agricultural Students Towards Self-Employment in Agribusiness
Researcher:	BP Dlamini
Supervisor:	Prof EM Ziwane
Co-Supervisor/s:	Mr EM Letsoalo
School:	Agricultural and Environmental Sciences
Degree:	Master of Science in Agricultural Management

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:

i) **This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.**

ii) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.**

iii) **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

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