



Research Article

Factors Affecting Youth Participation in Agriculture at Ndwedwe in KwaZulu Natal

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Abstract

Youth participation in agriculture remains essential for ensuring food security, promoting rural development, and sustaining agricultural productivity in South Africa. Despite the agricultural potential of rural areas, youth involvement in farming continues to decline because of socio-economic, institutional, and perceptual barriers. This study investigated the factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality, KwaZulu-Natal, South Africa. A cross-sectional survey design was employed, and primary data were collected from 97 respondents using structured questionnaires. Descriptive statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS), with results presented as frequencies and percentages. The findings revealed a high level of youth unemployment and limited involvement in agricultural development initiatives. Most respondents reported negative perceptions of agriculture, viewing it as an occupation associated with older and less educated individuals. Perception and attitude emerged as the most influential barriers to youth participation (88.6%), followed by inadequate agricultural knowledge and skills (37.5%), limited financial support (33.0%), and restricted access to land and natural resources (31.8%). Furthermore, respondents indicated limited awareness of youth-focused agricultural programmes implemented within the study area. The study concludes that improving youth participation in agriculture requires coordinated interventions that address educational, financial, institutional, and socio-cultural constraints. Integrating agriculture into school curricula, strengthening agricultural extension services, improving access to productive resources, and promoting agribusiness opportunities could enhance youth engagement and contribute to sustainable rural livelihoods. The findings provide evidence for policymakers and development practitioners seeking to formulate strategies that encourage youth participation in the agricultural sector.

Keywords

Youth Participation, Agriculture, Rural Development, Youth Employment, Agricultural Extension, Ndwedwe, Kwazulu-Natal, South Africa

1. Introduction

Agriculture remains a strategic sector for economic growth, employment creation, poverty reduction, and food security, particularly in developing countries. Globally, the demand for

agricultural production is expected to increase substantially as the world's population approaches approximately 9.7 billion by 2050. Consequently, attracting and retaining young people

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in agriculture has become a major policy priority for governments and international development organisations, including the Food and Agriculture Organization (FAO) and the African Union. Youth represent an important source of labour, innovation, entrepreneurship, and technological adoption that can enhance the sustainability and competitiveness of agricultural systems.

In South Africa, agriculture contributes significantly to rural livelihoods through employment, income generation, and household food production. Although the sector contributes a relatively small proportion to the national Gross Domestic Product (GDP), it plays a critical role in supporting rural economies and reducing poverty. However, the agricultural workforce is ageing, while many young people continue to migrate from rural communities to urban centres in search of employment opportunities. This demographic shift threatens the long-term sustainability of agricultural production and raises concerns about future food security and rural economic development.

Rural municipalities such as Ndwedwe in KwaZulu-Natal possess favourable climatic conditions and considerable agricultural potential. Nevertheless, youth participation in agricultural activities remains low despite persistent unemployment and limited alternative livelihood opportunities. Previous studies have shown that young people's decisions to engage in agriculture are influenced by multiple factors, including limited access to land, inadequate financial resources, poor access to markets, insufficient agricultural knowledge and training, weak institutional support, and negative perceptions of farming as an occupation. Agriculture is frequently regarded as physically demanding, financially unrewarding, and suitable primarily for older or less educated individuals, thereby discouraging youth from considering farming as a viable career.

South Africa has introduced several policies and programmes aimed at increasing youth participation in agriculture, including the National Development Plan (Vision 2030), the National Youth Policy, and initiatives implemented by the Department of Agriculture, Land Reform and Rural Development. Despite these interventions, youth unemployment remains disproportionately high, particularly within rural communities. This suggests that existing programmes have not sufficiently addressed the structural and socio-cultural barriers limiting youth engagement in agriculture.

Ndwedwe Local Municipality is predominantly rural, with agriculture serving as one of the primary livelihood activities. However, the continued migration of young people from the area, combined with the ageing farming population, threatens agricultural sustainability and local economic development. Understanding the factors influencing youth participation in agriculture is therefore essential for designing evidence-based interventions that promote youth employment, strengthen rural livelihoods, and ensure long-term agricultural productivity.

This study investigates the factors affecting youth participation in agriculture in Ward 7 of Ndwedwe Local Municipality, KwaZulu-Natal. Specifically, the study examines young

people's perceptions of agriculture, identifies the socio-economic and institutional barriers affecting participation, and evaluates opportunities for improving youth engagement through targeted agricultural development programmes. The findings are expected to contribute to policy development and provide practical recommendations for strengthening youth participation in agriculture as a pathway towards sustainable rural development.

1.1. Background of the Study

True "Agriculture remains one of the most important sectors for achieving sustainable economic growth, poverty reduction, employment creation, and food security, particularly in developing countries. Globally, the sector supports the livelihoods of more than two billion people and contributes significantly to rural development through food production, income generation, and natural resource management" [2]. As the global population continues to increase, agricultural systems are expected to produce more food while adapting to climate change, environmental degradation, and increasing competition for natural resources. These challenges highlight the need for a productive, innovative, and resilient agricultural workforce capable of sustaining future food systems.

Young people represent a strategic human resource for transforming the agricultural sector because they possess the potential to adopt modern technologies, improve productivity, stimulate agribusiness development, and enhance agricultural innovation. Across sub-Saharan Africa, however, youth participation in agriculture has declined steadily over the past two decades despite increasing unemployment and persistent rural poverty. Many young people perceive agriculture as labour-intensive, financially insecure, and less attractive than employment opportunities in urban areas, resulting in increasing rural-to-urban migration and an ageing farming population. In South Africa, agriculture remains an important contributor to rural livelihoods despite accounting for a relatively small proportion of the national Gross Domestic Product (GDP). The sector supports employment, food production, agro-processing industries, and export earnings while contributing to household food security in rural communities. Nevertheless, youth unemployment remains one of the country's most pressing socio-economic challenges. Young people experience significantly higher unemployment rates than older adults, with many rural youth facing limited employment opportunities outside subsistence agriculture.

Recognizing the importance of youth in achieving inclusive economic growth, the South African government has introduced several policies and programmes aimed at increasing youth participation in agriculture. These include the National Development Plan (Vision 2030), the National Youth Policy (2015–2020), and initiatives implemented by the Department of Agriculture, Forestry and Fisheries (now the Department of Agriculture, Land Reform and Rural Development). These policies seek to improve access to agricultural land, finance,

extension services, training, and entrepreneurial opportunities for young people. Despite these interventions, youth participation in agriculture remains relatively low, particularly in rural municipalities where access to productive resources and institutional support is often constrained.

Previous studies have identified several factors limiting youth participation in agriculture. These include limited access to land, inadequate financial resources, poor market access, insufficient agricultural knowledge and technical skills, weak extension services, and persistent negative perceptions regarding farming as a career. In many rural communities, agriculture is perceived as an occupation associated with poverty, physical labour, and limited career advancement, discouraging educated young people from entering the sector.

Ndwedwe Local Municipality, situated within the iLembe District Municipality of KwaZulu-Natal, is predominantly rural and characterised by high levels of unemployment, poverty, and dependence on agriculture for household livelihoods. Although the municipality possesses favourable agro-ecological conditions suitable for crop and livestock production, youth participation in agriculture remains relatively limited. The continued migration of young people to urban centres in search of employment further threatens the sustainability of agricultural production and rural economic development within the municipality.

Understanding the factors influencing youth participation in agriculture is therefore essential for designing effective policies and development programmes that promote youth employment, strengthen rural livelihoods, and improve agricultural productivity. Identifying the socio-economic, institutional, and behavioural barriers affecting participation can assist policymakers, extension practitioners, and development organisations in implementing targeted interventions that encourage youth engagement in agriculture.

This study therefore investigates the factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality. Specifically, it examines the socio-demographic characteristics of rural youth, assesses their participation in agricultural activities, identifies the major barriers limiting engagement, and explores opportunities for strengthening youth involvement through improved institutional support and agricultural development initiatives. The findings are expected to contribute to evidence-based policy formulation and support strategies aimed at enhancing youth participation in agriculture as a pathway towards sustainable rural development, food security, and employment creation.

1.2. Research Problem

Agriculture continues to play a vital role in promoting food security, employment creation, poverty reduction, and rural economic development in South Africa. Despite its strategic importance, youth participation in the agricultural sector has declined over the past two decades, resulting in an ageing farming population and raising concerns about the long-term

sustainability of agricultural production. Although South Africa has implemented various policies and programmes aimed at promoting youth involvement in agriculture, including the National Development Plan (Vision 2030), the National Youth Policy, and youth-focused agricultural support initiatives, the participation of young people in agricultural activities remains relatively low, particularly in rural communities.

The Ndwedwe Local Municipality is predominantly rural and has considerable agricultural potential. However, high levels of youth unemployment, poverty, and migration to urban areas continue to limit the availability of young people to participate in farming and agribusiness activities. Existing evidence suggests that factors such as limited access to land, financial resources, agricultural training, extension services, markets, and negative perceptions of agriculture may discourage youth participation. Nevertheless, limited empirical research has examined the combined influence of these factors within Ward 7 of the Ndwedwe Local Municipality.

The lack of localised evidence makes it difficult for policymakers and development practitioners to design targeted interventions that effectively address the barriers faced by rural youth. This study therefore seeks to investigate the socio-economic, institutional, and behavioural factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality and to provide evidence-based recommendations for enhancing youth engagement in the agricultural sector.

1.3. Research Questions

The study was guided by the following research questions:

Main Research Question

What factors influence youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality, KwaZulu-Natal?

Specific Research Questions

What are the socio-demographic characteristics of youth in Ward 7 of the Ndwedwe Local Municipality?

What is the current level of youth participation in agricultural activities within the study area?

Which socio-economic, institutional, and behavioural factors influence youth participation in agriculture?

How do young people perceive agriculture as a livelihood and career option?

What agricultural support programmes and interventions are available to youth in the study area?

What strategies can be implemented to improve youth participation in agriculture?

1.4. Research Objectives

1.4.1. Main Objective

To investigate the factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality, KwaZulu-Natal.

1.4.2. Specific Objectives

The specific objectives of the study were to:

Describe the socio-demographic characteristics of youth in Ward 7 of the Ndwedwe Local Municipality.

Assess the level of youth participation in agricultural activities.

Identify the socio-economic, institutional, and behavioural factors influencing youth participation in agriculture.

Examine young people's perceptions and attitudes towards agriculture.

Evaluate the effectiveness of existing agricultural support programmes and interventions targeting youth.

Develop recommendations for improving youth participation in agriculture and promoting sustainable rural livelihoods.

1.5. Research Hypotheses

The following hypotheses were formulated to guide the empirical investigation.

1.5.1. Null Hypothesis (H_0)

There is no statistically significant relationship between socio-economic, institutional, and behavioural factors and youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality.

1.5.2. Alternative Hypothesis (H_1)

There is a statistically significant relationship between socio-economic, institutional, and behavioural factors and youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality.

1.5.3. Conceptual Framework

The study is based on the premise that youth participation in agriculture (dependent variable) is influenced by several independent variables, including:

Socio-economic factors: age, gender, education, employment status, household income.

Institutional factors: access to extension services, government support programmes, agricultural training, market access.

Resource factors: access to land, finance, farm inputs, infrastructure.

Behavioural factors: perceptions, attitudes, motivation, and interest in agriculture.

These factors interact to determine the extent to which young people engage in agricultural production and agribusiness. Understanding these relationships provides a basis for developing targeted interventions to improve youth participation, strengthen rural livelihoods, and support sustainable agricultural development in the Ndwedwe Local Municipality.

2. Literature Review

This chapter critically reviews the theoretical and empirical literature relevant to youth participation in agriculture. The review provides a conceptual understanding of the key factors that influence young people's engagement in agricultural activities and examines existing evidence from South Africa and other developing countries. It establishes the theoretical foundation for the study by identifying the socio-economic, institutional, behavioural, and policy-related determinants that shape youth participation in agriculture.

The chapter begins by discussing the concept of youth participation in agriculture and its significance for agricultural development and rural transformation. It then examines relevant theoretical perspectives that explain participation in economic and livelihood activities, followed by an analysis of empirical studies addressing access to land, finance, education, agricultural extension services, markets, technology, and government support programmes. The literature also considers the influence of demographic characteristics, perceptions of agriculture, and the broader policy environment on young people's decisions to engage in farming and agribusiness.

A critical review of previous studies reveals that although agriculture continues to offer opportunities for employment creation, entrepreneurship, and food security, rural youth face multiple constraints that limit their active participation. These challenges vary across geographical contexts and institutional settings, indicating that factors influencing youth engagement are often location-specific. Consequently, findings from one region cannot always be generalized to another without empirical investigation.

The review further identifies areas of agreement and divergence in the existing body of knowledge and highlights gaps that justify the present study. In particular, there is limited empirical evidence focusing on the factors influencing youth participation in agriculture within Ward 7 of the Ndwedwe Local Municipality. Addressing this gap is important for generating context-specific evidence that can inform policies and interventions aimed at increasing youth involvement in agriculture and promoting sustainable rural livelihoods.

Overall, this study provides the academic context within which the study is situated and demonstrates how previous research informs the development of the conceptual framework, research objectives, and interpretation of the empirical findings presented in subsequent chapters.

2.1. Youth Participation in Agriculture

Agriculture remains one of the largest employers in many developing countries and provides livelihoods for millions of rural households. However, participation by young people has steadily declined despite increasing unemployment rates. According to the Food and Agriculture Organization youth represents an essential resource for improving agricultural productivity because they are generally more receptive to

technological innovation, entrepreneurship, and modern farming practices.

Africa possesses the youngest population globally, yet agricultural production continues to rely predominantly on ageing farmers. The organization argues that strengthening youth participation is fundamental to improving food security, enhancing agricultural competitiveness, and ensuring inter generational sustainability of farming systems.

South African youth have relatively low participation in agricultural activities despite high levels of rural unemployment. The study concluded that improving access to productive resources and creating profitable agricultural enterprises could increase youth interest in farming as a career.

2.2. Perceptions & Attitudes

Young people's perceptions of agriculture play a critical role in determining their willingness to participate in farming. Several studies conducted between 2016 and 2019 indicate that agriculture is widely perceived as physically demanding, financially risky, and associated with poverty and low social status.

True: "Many young people regard agriculture as an occupation suitable mainly for older people or individuals with limited educational opportunities [6]." Such perceptions discourage educated youth from considering agriculture as a viable livelihood option despite increasing employment challenges.

True: "Negative attitudes towards farming significantly reduce youth participation, even where agricultural opportunities exist. The study further suggested that improving agricultural education, promoting successful young farmers, and strengthening extension services could improve public perceptions of agriculture [7]."

True: "South Africa demonstrated that favourable perceptions were positively associated with youth participation in farming activities, whereas negative attitudes increased the likelihood of migration to urban centers [1]."

2.3. Socio-Economic Factors

Socio-economic characteristics strongly influence young people's decisions to engage in agriculture. Education, household income, employment opportunities, access to credit, and availability of land have consistently been identified as important determinants.

True: "Whose findings remained influential during the (2016–2019) period, reported that limited access to agricultural land and financial resources discourages rural youth from investing in farming enterprises. Similar conclusions found that inadequate capital, limited extension support, and poor market access significantly constrained youth participation [3]."

Unogelo et al. (2015), frequently cited in studies published during this period, argued that youth require improved finan-

cial services, business development support, and market integration to establish sustainable agricultural enterprises. Without these enabling conditions, agriculture remains less attractive than urban employment.

True: "Furthermore, research demonstrated that higher levels of education positively influence agricultural decision-making and technology adoption. Educated youth were more likely to adopt innovative production practices when adequate institutional support was available [4]."

2.4. Institutional and Agricultural Programmes

Government policies and institutional support play an important role in promoting youth participation in agriculture. South Africa's National Development Plan (Vision 2030) identifies agriculture as a priority sector for employment creation, rural development, and food security.

The Department of Agriculture, Forestry and Fisheries (DAFF) emphasized youth empowerment through agricultural training, entrepreneurship development, extension services, and improved access to production resources. Likewise, the Youth in Agriculture and Rural Development (YARD) programme was established to encourage youth involvement in farming and agribusiness.

True: "However, evidence suggests that many young people remain unaware of existing agricultural programmes. Limited dissemination of information and weak institutional coordination reduce programme effectiveness. Similarly, observations argued that agricultural innovations are often poorly communicated to rural youth, limiting adoption and participation [9]."

2.5. Land, Finance and Extension Services

Access to productive resources remains one of the most significant barriers to youth participation in agriculture. Land ownership systems, particularly in communal areas, often limit young people's ability to establish independent farming enterprises.

Secure land tenure, affordable credit, and effective extension services are essential prerequisites for increasing youth participation. Young farmers who receive technical advice, production training, and financial support are more likely to establish sustainable agricultural businesses.

Access to agricultural extension improves technology adoption, productivity, and market participation among rural farmers. Extension officers therefore play a critical role in transferring knowledge and encouraging innovation among young producers.

2.6. Theoretical Perspectives

Several behavioral theories have been applied to explain youth participation in agriculture. The Theory of Reasoned Action proposes that behavioral intentions are influenced by

attitudes and subjective social norms. Young people who perceive agriculture positively and receive family or community support are more likely to participate in farming activities.

Rational Choice Theory explains participation as a decision based on perceived costs and benefits. Where agriculture is viewed as less profitable than alternative employment opportunities, young people are likely to pursue non-agricultural careers. Conversely, improved profitability, market opportunities, and institutional support increase the likelihood of agricultural participation.

These theoretical perspectives provide a useful framework for understanding how socio-economic conditions, perceptions, and institutional factors interact to influence youth participation in agriculture within rural communities.

2.7. Research Gap

Although considerable research between (2016) and (2019) examined youth participation in agriculture across Africa, relatively few studies focused specifically on rural municipalities in KwaZulu-Natal, particularly Ndwedwe Local Municipality. Existing studies largely concentrated on national trends or other regions and therefore provided limited evidence on the local socio-economic, cultural, and institutional factors affecting youth participation.

Furthermore, many previous studies investigated individual determinants such as land access, finance, or perceptions in isolation. Limited research integrated these factors within a single analytical framework to explain youth participation in rural KwaZulu-Natal. This study therefore addresses an important knowledge gap by examining the combined influence of socio-economic characteristics, perceptions, institutional support, and resource accessibility on youth participation in agriculture in Ward 7 of Ndwedwe Local Municipality.

3. Research Methodology

This chapter describes the methodological procedures employed to investigate the factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality, KwaZulu-Natal, South Africa. It outlines the research design, study area, target population, sampling procedures, data collection methods, research instrument, validity and reliability measures, ethical considerations, and data analysis techniques. These methodological procedures were selected to ensure that the study generated reliable, valid, and credible findings capable of addressing the research objectives.

3.1. Research Design

A quantitative research approach employing a cross-sectional survey design was adopted for this study. The quantitative approach was considered appropriate because it facilitates the systematic collection and statistical analysis of numerical data obtained from a relatively large sample of respondents.

The cross-sectional design enabled the researcher to collect information from participants at a single point in time, thereby providing a comprehensive assessment of the factors affecting youth participation in agriculture within the study area.

The survey design allowed respondents to provide information regarding their socio-demographic characteristics, participation in agricultural activities, perceptions of agriculture, and challenges limiting their involvement in the agricultural sector. This approach also enhanced comparability of responses across participants while ensuring consistency in data collection.

3.2. Description of the Study Area

The study was conducted in Ward 7 of the Ndwedwe Local Municipality, situated within the Ilembe District Municipality in KwaZulu-Natal Province, South Africa. Ndwedwe is predominantly a rural municipality characterized by dispersed settlements and high levels of unemployment, poverty, and dependence on agriculture for household livelihoods.

Agricultural production in the municipality includes crop cultivation, livestock farming, and household food production. The area possesses favourable climatic conditions and agricultural potential; however, youth participation in farming remains relatively low despite increasing unemployment among young people. These characteristics make Ward 7 an appropriate location for investigating the determinants of youth participation in agriculture.

3.3. Target Population

The target population consisted of young people residing in Ward 7 who fell within the age category defined by the National Youth Policy (15–35 years). Both youth actively involved in agricultural activities and those not participating in agriculture were included to provide a comprehensive understanding of the factors influencing participation.

Including both participant groups enabled comparisons between youths engaged in agriculture and those who had chosen alternative livelihood options.

3.4. Sampling Procedure and Sample Size

A structured sampling procedure was employed to identify respondents for participation in the study. The study used simple random sampling to provide eligible youth with an equal opportunity of being selected, thereby reducing selection bias and improving representativeness.

A total of 97 respondents participated in the survey. The sample size was considered adequate to provide meaningful descriptive statistical analysis and to capture the diversity of youth experiences within the study area.

3.5. Data Collection Methods

Primary data were collected using a structured question-

naire administered through face-to-face interviews. The questionnaire consisted primarily of closed-ended questions designed to obtain quantitative information relating to respondents' demographic characteristics, agricultural participation, access to agricultural resources, institutional support, perceptions of agriculture, and challenges affecting participation.

Face-to-face administration was selected because it improved response rates, reduced non-response bias, and enabled clarification of questions where necessary. The researcher also ensured that respondents fully understood each question before providing responses.

Secondary information was obtained from peer-reviewed journal articles, government publications, policy documents, books, reports from international organizations, and previous studies addressing youth participation in agriculture.

3.6. Research Instrument

The questionnaire was organized into several sections corresponding to the study objectives. The first section collected socio-demographic information, including age, gender, educational attainment, employment status, and farming experience. Subsequent sections examined respondents' agricultural participation, awareness of agricultural development programmes, perceptions towards agriculture, access to land, finance, extension services, and other factors influencing participation.

Most questions employed nominal and ordinal response categories, while selected items utilized Like-rt-type scales to measure respondents' attitudes and perceptions towards agriculture.

3.7. Data Analysis

Completed questionnaires were coded, captured, and analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistical techniques were employed to summarise the data.

The analysis included frequencies, percentages, tables, and graphical presentations to describe respondents' socio-demographic characteristics and identify factors influencing youth participation in agriculture. The findings were interpreted alongside existing literature to provide a comprehensive discussion of the observed trends and relationships.

3.8. Ethical Considerations

Ethical principles were observed throughout the research process. Ethical approval was obtained from the relevant university structures before commencement of data collection. Permission to conduct the study was also obtained from the appropriate municipal and community authorities.

Participation was entirely voluntary, and respondents were informed about the purpose of the study before data collection commenced. Written informed consent was obtained from all participants, and respondents were assured that their identities

would remain anonymous and that information provided would be treated confidentially and used solely for academic purposes.

Participants were informed of their right to withdraw from the study at any stage without penalty. All collected data were securely stored and accessed only by the researcher.

3.9. Limitations of the Study

The study was limited to youth residing in Ward 7 of the Ndwedwe Local Municipality, and therefore the findings may not be directly generalize to all rural communities in South Africa. Furthermore, the use of self-reported information may have introduced response bias, as participants' answers were based on personal perceptions and experiences.

Despite these limitations, the study provides valuable empirical evidence regarding the socio-economic and institutional factors influencing youth participation in agriculture within a rural South African context.

4. Results and Discussion

This chapter presents and discusses the findings of the study on factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality, KwaZulu-Natal. The presentation of results is organized according to the study objectives and research questions to provide a logical interpretation of the data collected from the respondents. The findings are presented using descriptive statistics, including frequencies, percentages, tables, and figures, to illustrate the socio-demographic characteristics of respondents, their level of participation in agricultural activities, and the factors influencing their engagement in the agricultural sector. The results are interpreted within the context of existing empirical literature to establish similarities, differences, and implications for rural agricultural development.

The chapter begins by describing the socio-demographic characteristics of the respondents, including gender, age, educational attainment, employment status, and farming experience, as these variables provide important contextual information for understanding youth participation in agriculture. This is followed by an assessment of respondents' involvement in agricultural activities and their awareness of existing agricultural support programmes and interventions. The chapter then examines the socio-economic, institutional, and behavioral factors influencing youth participation, including access to land, financial resources, agricultural knowledge and skills, extension services, market opportunities, and perceptions towards agriculture.

The discussion integrates the empirical findings with previous studies to provide a comprehensive understanding of the determinants of youth participation in agriculture. Similarities and differences between the current findings and those reported in earlier research are highlighted to explain the broader implications for agricultural development and youth

employment. Where appropriate, possible explanations are offered for observed trends within the study area, taking into account the socio-economic conditions prevailing in Ndwedwe Local Municipality.

The findings presented in this chapter contribute to the growing body of knowledge on youth participation in agriculture and provide empirical evidence to support the formulation of policies and programmes aimed at improving youth engagement in the agricultural sector. By identifying the major constraints and opportunities affecting participation, the study provides practical recommendations for policymakers, agricultural extension practitioners, and rural development stakeholders seeking to strengthen youth involvement in agriculture and promote sustainable rural livelihoods.

4.1. Socio-Demographic Characteristics of Respondents

The socio-demographic characteristics of respondents provide important insights into the factors that influence youth participation in agricultural activities. Variables such as gender, age, educational attainment, farming experience, and household dependency have been widely recognized as key determinants of agricultural participation.

4.2. Factors Influencing Youth Participation

The decision of young people to participate in agriculture is influenced by a complex interaction of socio-economic, institutional, psychological, and environmental factors. This study identified several determinants that significantly affected youth participation in agricultural activities in Ward 7 of the Ndwedwe Local Municipality. These factors included perceptions and attitudes towards agriculture, access to agricultural knowledge and skills, financial constraints, access to land and productive resources, availability of extension services, and awareness of government agricultural programmes. Collectively, these findings suggest that youth participation is shaped not only by resource availability but also by the broader social and institutional environment in which young people make livelihood decisions.

4.2.1. Agricultural Perceptions & Attitudes

The findings revealed that perceptions and attitudes constituted the most influential factor affecting youth participation in agriculture. A substantial proportion of respondents perceived farming as physically demanding, financially unrewarding, and characterized by limited career progression. These perceptions discouraged many young people from considering agriculture as a viable livelihood option, despite the high unemployment levels within the study area. The persistence of these negative perceptions reflects broader societal attitudes that associate farming with poverty, manual labour, and limited educational achievement. The findings are consistent with those reported that negative

perceptions significantly reduced young people's willingness to engage in agriculture in South Africa. True: "Similarly, many rural youth regarded agriculture as an occupation suitable primarily for older people or individuals with limited employment alternatives [5]." Such perceptions contribute to rural-to-urban migration, where young people seek employment in sectors perceived to offer greater financial security and social status.

The results further indicate that changing youth perceptions requires more than awareness campaigns alone. Improving the profitability, technological advancement, and entrepreneurial image of agriculture could enhance its attractiveness among educated youth. Promoting successful young farmers as role models, incorporating digital agriculture into extension programmes, and strengthening agricultural entrepreneurship initiatives may contribute to changing these perceptions.

4.2.2. Agricultural Knowledge & Skills

Limited agricultural knowledge and technical skills emerged as another important barrier to youth participation. Many respondents indicated that they had received little or no formal agricultural training and therefore lacked confidence in managing agricultural enterprises. This deficiency reduces the ability of young people to adopt improved production practices, manage business risks, and access agricultural markets.

These findings identified knowledge and skills development as fundamental requirements for increasing youth participation in agriculture. True: "Likewise, technical competence positively influences agricultural productivity, innovation adoption, and enterprise sustainability. Young people who receive practical agricultural education and continuous extension support are generally more willing to invest in farming activities.

The limited availability of agricultural training programmes within the study area suggests a need for stronger collaboration between educational institutions, extension services, and local government. Expanding vocational agricultural training and integrating agribusiness management into youth development programmes could improve participation and enhance agricultural productivity.

4.2.3. Financial Constraints

Limited access to financial resources was identified as a major obstacle preventing young people from establishing or expanding agricultural enterprises. Respondents reported that insufficient start-up capital, restricted access to affordable credit, and high production costs limited their ability to invest in farming activities. These financial challenges were further compounded by the absence of collateral required by many lending institutions.

This finding corresponds with previous studies conducted across sub-Saharan Africa. Financial exclusion significantly reduces youth engagement in agriculture because young people often lack assets required to secure agricultural loans. Similarly, improving access to youth-friendly financial services,

including subsidized credit, grants, and agricultural insurance, is essential for promoting agricultural entrepreneurship.

The findings suggest that expanding financial inclusion through government-supported agricultural credit schemes, youth enterprise funds, and cooperative financing mechanisms could substantially improve youth participation. Financial literacy programmes should also accompany these interventions to improve investment decisions and business sustainability.

4.2.4. Land and Productive Resources

Access to land remains one of the most significant structural constraints affecting youth participation in agriculture. Many respondents indicated that acquiring land for agricultural production was difficult because of communal land tenure arrangements, limited ownership rights, and competition for available agricultural land. Consequently, many young people were unable to establish independent farming enterprises despite expressing interest in agricultural production.

The importance of land access has been widely documented in agricultural development literature. Secure land tenure encourages investment, improves productivity, and increases the likelihood of long-term agricultural participation. Similarly, land accessibility directly influences young people's willingness to engage in commercial agriculture.

In addition to land constraints, respondents reported inadequate access to essential productive resources such as irrigation infrastructure, quality seed, fertilisers, farm machinery, and transport. These limitations reduce agricultural productivity and discourage sustained participation.

Addressing these challenges requires integrated policies that improve youth access to communal land allocation systems, agricultural infrastructure, and production inputs. Public-private partnerships could further support resource accessibility through equipment-sharing schemes and subsidised input programmes.

4.2.5. Agricultural and Institutional Support

Agricultural extension services play a critical role in transferring knowledge, facilitating technology adoption, and linking farmers with markets and government support programmes. However, respondents reported limited interaction with extension officers and inadequate awareness of existing agricultural development initiatives within the municipality.

The findings indicate that institutional support remains insufficient to address the needs of aspiring young farmers. Similar conclusions discovered that weak extension systems reduce technology adoption and limit agricultural innovation among rural communities. Effective extension services are particularly important for young farmers because they provide technical guidance, business mentoring, and information on available funding opportunities.

Strengthening extension capacity, increasing the frequency of farm visits, and improving communication between gov-

ernment departments and rural youth could enhance participation rates. Digital extension platforms and mobile-based advisory services may further improve information dissemination among younger farmers.

4.2.6. Awareness of Government Agricultural Programmes

Although several government programmes have been introduced to promote youth participation in agriculture, the study found that awareness and utilization of these initiatives remained relatively low. Many respondents reported limited knowledge of agricultural grants, training opportunities, entrepreneurship programmes, and youth-focused development initiatives operating within the municipality.

This finding suggests that programme implementation is constrained not only by resource availability but also by ineffective communication strategies.

True:“ Previous research has similarly reported that inadequate dissemination of programme information limits participation among intended beneficiaries [8].” Increasing community outreach, strengthening partnerships with local organizations, and involving traditional leadership structures may improve programme accessibility.

4.2.7. Integrated Discussion

The findings demonstrate that youth participation in agriculture cannot be explained by a single determinant but rather by the interaction of economic, institutional, educational, and psychological factors. Negative perceptions reduce young people's motivation to pursue agricultural careers, while structural barriers such as limited access to land, finance, training, and extension services restrict opportunities for those who are interested in farming.

These results align with contemporary literature, which argues that successful youth engagement requires integrated interventions rather than isolated policy measures. Improving only one aspect, such as access to finance, is unlikely to generate sustained participation unless accompanied by improvements in education, institutional support, market access, and agricultural profitability.

For Ndwedwe Local Municipality, increasing youth participation will require coordinated action among government departments, educational institutions, agricultural extension services, financial institutions, and community organizations. Such collaboration has the potential to transform agriculture into a more attractive and economically viable sector for rural youth, thereby contributing to employment creation, poverty reduction, and sustainable rural development.

5. Conclusion and Recommendations

This chapter presents the conclusions drawn from the findings of the study on factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality,

KwaZulu-Natal. The conclusions are based on the study objectives and the empirical evidence generated through the survey. The chapter also presents recommendations aimed at improving youth participation in agriculture and concludes with suggestions for future research.

5.1. Conclusion

The study investigated the factors influencing youth participation in agriculture in Ward 7 of the Ndwedwe Local Municipality. The findings demonstrate that agriculture continues to offer significant opportunities for employment creation, food security, income generation, and sustainable rural development. However, despite these opportunities, the participation of young people in agriculture remains relatively low because of a combination of socio-economic, institutional, and behavioural constraints.

The socio-demographic profile of respondents indicated that although most participants were within the economically active youth age group, relatively few regarded agriculture as a preferred career option. Educational attainment varied among respondents, but this did not necessarily translate into increased participation in agricultural activities. Instead, many respondents associated agriculture with low economic returns, physically demanding work, and limited prospects for career advancement. These perceptions have contributed to declining interest in farming and increasing migration of young people to urban centres in search of alternative employment opportunities.

The study further revealed that limited access to productive resources remains one of the most significant barriers to youth participation in agriculture. Restricted access to agricultural land, affordable credit, quality inputs, irrigation facilities, and reliable markets constrained the ability of young people to establish viable farming enterprises. Financial exclusion was particularly evident among respondents who lacked collateral required by formal financial institutions, thereby limiting investment in agricultural production.

Another important finding was the limited availability of agricultural knowledge and technical skills among respondents. Many participants reported inadequate exposure to agricultural training programmes and limited interaction with agricultural extension officers. As a result, they experienced difficulties in adopting improved farming technologies, managing agricultural enterprises, and accessing government support programmes. These findings underscore the critical role of agricultural education, extension services, and mentorship in promoting youth participation and improving agricultural productivity.

The study also established that institutional support for youth agriculture remains inadequate. Although several government initiatives have been introduced to encourage youth involvement in agriculture, awareness and utilisation of these programmes were generally low. Respondents indicated that insufficient dissemination of information and limited engagement between extension services and rural youth reduced access to

available opportunities. Consequently, many young people remained unaware of training programmes, financial assistance, and entrepreneurship initiatives designed to support youth participation in agriculture.

Overall, the study concludes that youth participation in agriculture is determined by the interaction of multiple factors rather than a single constraint. Socio-economic conditions, access to productive resources, institutional support, agricultural knowledge, and perceptions towards farming collectively influence young people's decisions to participate in agricultural activities. Addressing these interconnected barriers will require integrated policies that simultaneously improve access to resources, strengthen institutional support systems, enhance agricultural education, and promote agriculture as a profitable and innovative career pathway for young people.

The findings contribute to the growing body of knowledge on youth participation in agriculture and provide empirical evidence that can assist policymakers, development practitioners, and local government in designing targeted interventions to strengthen youth engagement in agriculture and promote sustainable rural development.

Based on the findings of the study, the following recommendations are proposed to improve youth participation in agriculture in the Ndwedwe Local Municipality and similar rural communities.

5.1.1. Access to Agricultural Land

Access to agricultural land should be prioritised through collaborative efforts involving the Department of Agriculture, Land Reform and Rural Development, local municipalities, and traditional authorities. Transparent land allocation systems, secure land tenure arrangements, and youth-focused land reform initiatives should be implemented to enable young people to establish sustainable farming enterprises.

5.1.2. Youth Agricultural Finance

Government and financial institutions should establish accessible financing mechanisms tailored to young farmers. These should include low-interest agricultural loans, start-up grants, revolving credit facilities, and financial guarantee schemes that reduce collateral requirements. Financial literacy and enterprise management training should accompany these initiatives to improve the sustainability of youth-led agricultural businesses.

5.1.3. Agricultural Education and Capacity Building

Agricultural education should be strengthened at secondary schools, technical colleges, and universities by integrating practical training, agribusiness management, climate-smart agriculture, digital agriculture, and entrepreneurship into curricula. Practical demonstrations, internships, and mentorship programmes should be expanded to equip young people with the technical and managerial skills required to succeed in modern agriculture.

5.1.4. Improve Agricultural Extension Services

Extension services should be strengthened by increasing the number of extension officers serving rural communities and improving the frequency of advisory visits. Extension programmes should adopt participatory and youth-centred approaches that encourage innovation, technology transfer, and business development. Digital advisory platforms, mobile applications, and social media should also be utilised to improve information dissemination among young farmers.

5.1.5. Awareness of Government Programmes

Government departments should improve communication and outreach strategies to ensure that rural youth are aware of available agricultural support programmes. Information should be disseminated through schools, community meetings, youth organisations, local radio stations, agricultural exhibitions, and digital communication platforms. Simplified application procedures should also be introduced to improve accessibility.

5.1.6. Promote Agricultural Entrepreneurship

Agriculture should be promoted as a commercially viable and innovative sector capable of generating sustainable employment and income. Youth should be encouraged to participate in high-value agricultural enterprises, agro-processing, value addition, input supply, digital agriculture, and agribusiness development. Business incubation centres and mentorship programmes should support young entrepreneurs throughout the agricultural value chain.

5.1.7. Strengthen Market Access

Government and private-sector stakeholders should improve market access for young farmers by facilitating linkages with supermarkets, agro-processors, cooperatives, and export markets. Investment in storage facilities, transport infrastructure, market information systems, and value chain development will improve profitability and encourage sustained participation.

5.1.8. Strengthen Multi-Stakeholder Collaboration

Sustainable youth participation in agriculture requires collaboration among government departments, municipalities, universities, research institutions, financial institutions, non-governmental organisations, the private sector, and farming associations. Coordinated interventions should focus on resource mobilisation, skills development, research, innovation, and policy implementation to create an enabling environment for youth-led agricultural development.

5.1.9. Policy Implications

The findings of this study highlight the need for integrated policy interventions that address the structural barriers limiting youth participation in agriculture. Agricultural policies

should prioritise youth empowerment by improving access to land, finance, education, extension services, and agricultural markets. Policymakers should also promote innovation, digital technologies, and climate-smart agricultural practices to enhance the attractiveness and profitability of the agricultural sector. Effective implementation of these interventions will contribute to achieving the objectives of South Africa's National Development Plan 2030, the African Union Agenda 2063, and the United Nations Sustainable Development Goals, particularly those relating to poverty reduction, food security, decent work, and sustainable economic growth.

5.2. Recommendations

The future sustainability of South African agriculture depends on the successful integration of young people into agricultural production and agribusiness. This study demonstrates that youth participation is constrained by interconnected socio-economic, institutional, and behavioural factors that require comprehensive and coordinated interventions. By improving access to productive resources, strengthening agricultural education and extension services, expanding financial inclusion, and promoting agriculture as an innovative and profitable career, stakeholders can create an enabling environment that attracts and retains young people in the agricultural sector. Such interventions will not only strengthen agricultural productivity and food security but also contribute to rural employment, poverty reduction, and inclusive economic development.

Abbreviations

YARD	Youth in Agriculture and Rural Development
GDP	Gross Domestic Product
DARD	Department of Agriculture and Rural Development
NDP	National Development Plan (vision 2030)
YPARD	Youth Professionals for Agriculture Development
CAADP	Comprehensive Agricultural Development Programme

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Author Contributions

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Conflicts of Interest

The author declares no conflicts of interest.

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