
CHALLENGES HINDERING YOUTH PARTICIPATION IN AGRICULTURE IN BOTSWANA

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<http://doi.org/10.35409/IJBMER.2024.3551>

ABSTRACT

This study investigates the challenges faced by youth engagement in agriculture in Botswana. A well-structured questionnaire of 132 individuals was utilized for data collection. The study identifies challenges hindering youth engagement, including limited capital, land, infrastructure, and technology access. To enhance youth involvement in agriculture, the study calls for government intervention in correcting negative perceptions and creating a conducive environment through policies that directly address the unique challenges the youth face. Ultimately, such measures can pave the way for increased youth participation, the nation's food security, and economic development in Botswana's agricultural sector.

Keywords: Youth Participation · Agriculture · Poverty · Food security· Botswana.

1. INTRODUCTION

Agriculture is deeply a part of Botswana's cultural heritage; it serves as both a livelihood and a way of life for many rural people, playing a pivotal role in their survival. It covers livestock and crop production. This sector is instrumental in mitigating Botswana's food insecurity, unemployment, and poverty (Manage, 2020). Additionally, among the younger population, agriculture presents entrepreneurial opportunities. The agricultural sector draws private sector investments for agribusiness entrepreneurs, potentially expanding market opportunities (Carter, 2015).

Like many other nations, Botswana grapples with the need to attract and make agriculture fashionable for young people. The sector plays a pivotal role in the country's economy, and involving the youth is essential for long-term sustainability. However, several challenges hinder their participation, ranging from perceptions and resource access to policy constraints. This paper attempts to discuss challenges and opportunities for youth engagement in Agriculture.

Hypothesis testing

1. **H₀:** There are no significant challenges youth face in participating in agriculture in Botswana.

H₁: There are significant challenges youth face in participating in agriculture in Botswana.

2. REVIEW OF LITERATURE

2.1 Perceptions and Attitudes

One of the primary challenges the youth faces is their perception of agriculture. Traditional views of farming as labour-intensive, with limited financial rewards, deter young individuals from considering it a viable career option (Daudu et al., 2023). Young people's perceptions are influenced by socialization, which takes place at home, among peers, and at school. The household

is a primary agent of socialization where youth gain different exposure to agriculture and its importance. While at school, agriculture is taught, and more insights are given, which may greatly impact youth perceptions and attitudes towards agriculture (Muwi, 2012). Youth are believed to have a negative perception towards agriculture; this is influenced by the stereotypes and agriculture being considered a field that involves low wages and back-breaking hours. However, Magagula & Tsvakirai (2020) found that some youth have positive perceptions about agriculture and venturing into agripreneurship. Hence, it is important to create awareness about the sector.

2.2 Limited Access of Land and Capital

Sub-Saharan African economies are growing. However, there are large disparities among people. Access to land is crucial in initiating farming activities, yet it is a challenging problem for many young individuals (Anyonge & Liversage, 2021). In developing countries, inheritance laws and cultural practices frequently present obstacles that hinder land transfer to young women, making it difficult for them to establish farms.

Another significant impediment is the limited access to financial services for rural youth. Financial service providers often hesitate to extend credit, savings, and insurance to young individuals in rural areas. This reluctance stems from concerns such as the absence of collateral and insufficient financial literacy among these youth. Addressing this issue requires the promotion of tailored financial products designed for youth, the implementation of mentoring programs, and the provision of startup funding opportunities. These initiatives can collectively contribute to overcoming the challenges young farmers face in obtaining the necessary financial support for their agricultural pursuits (Food and Agriculture Organization, 2014).

2.3 Skills and Training Gaps

On the other hand, the agricultural landscape is transforming technological advancements and integrating sustainable practices. Despite these changes, the absence of training initiatives and skill development programs customized for the specific requirements of young farmers impedes their capacity to embrace contemporary farming methods. It is imperative to strategically invest in education and vocational training programs to effectively close this gap and empower the younger generation with the essential knowledge and skills required for successful engagement in modern agricultural practices (Wailand, 2023).

2.4 Inadequate Infrastructure and Technology Adoption

The condition of agricultural infrastructure, encompassing transportation, irrigation systems, and storage facilities, plays a crucial role in influencing the effectiveness of farming activities. In rural areas, the inadequacy of infrastructure presents hurdles for young farmers, affecting aspects such as production efficiency, transportation of goods, and market accessibility (Petani, 2023). To mitigate these challenges and optimize the agricultural value chain, targeted investments in infrastructure development are essential.

Limited access to and awareness of modern agricultural technologies hinder the productivity and competitiveness of youth in agriculture. Encouraging the adoption of precision farming, digital tools, and tech solutions can enhance efficiency and attract tech-savvy young individuals to the sector.

2.5 Market Access, Information and Policy Reforms

The competitiveness of young farmers in selling their products may be hindered by restricted access to markets and inadequate information on market trends. Improving market linkages, disseminating relevant market information, and fostering the establishment of cooperatives and farmer associations are vital measures to augment market access for youth actively involved in agriculture (Petani, 2023).

Clear and supportive agricultural policies are essential for creating an environment that enables youth participation. Botswana needs to revisit and reform policies to address the challenges young farmers face, including access to land, financial support, and market opportunities.

2.6 Theoretical Review

2.7 Youth Empowerment Theory

In 1981, Julian Rappaport introduced a youth empowerment theory, stating that individuals derive power from recognizing their influence within the social and political power framework. Central to his concept of empowerment is the acknowledgement of people's needs and rights, coupled with a genuine concern for the powerlessness experienced by marginalized groups. Rappaport's framework believes that empowering individuals involves not only aiding them in understanding their circumstances but also enabling them to attain a level of influence over their lives.

Rappaport's notion of empowerment operates on multiple levels, encompassing the individual, organizational, and community spheres. He contended that empowerment is realized when individuals actively participate and engage within their communities, cultivating a sense of ownership and investment. This active engagement goes beyond passive observation, allowing individuals to play an active role in shaping their environments and decisions that impact their lives (Jennings et al., 2006)

Crucially, Rappaport advocated for collaboration as a foundational pillar of empowerment. He recognized that fostering an environment of empowerment is best achieved through collective efforts, where individuals and groups work together to achieve shared goals. By embracing collaboration, individuals create spaces where their voices are heard, contributing to decision-making processes and forging a genuine sense of empowerment.

A key aspect of Rappaport's perspective is the emphasis on decision-making involvement. He believed that when people are included in the processes determining their collective fate, they experience a profound sense of empowerment. This inclusion cultivates a belief that their perspectives and contributions matter, infusing a newfound agency into their actions and attitudes. Building on Rappaport's ideas, Zimmerman (2000) also recognized the transformative potential of empowerment through collaboration and decision-making. Zimmerman (2000) underlined that empowerment occurs when individuals are active participants, collaborating to co-create solutions. This approach facilitates a dynamic in which power is distributed more equitably and marginalized voices can be heard.

3.METHODOLOGY

3.1 Sampling Design and Procedure

A simple random sampling method selected respondents from the target youth population. The questionnaire was administered to 150 Botswana youths, but only 132 people filled out the questionnaire, which was administered online.

3.2 Data Collection and Instrument

The data used for this study is primary data, which was collected through a well-structured questionnaire distributed to respondents. The questionnaire was used to collect data from youths in Botswana to ascertain the challenges and opportunities in Agriculture in Botswana.

Questionnaire was the data collection instrument used for this study. The questionnaire was administered to Youths from Botswana to elicit responses from them. The questions were based on the challenges and opportunities of Agriculture in Botswana for Young people. The questionnaire consisted of two sections, A and B:

Section A: Demography of Respondents

Section B: Challenges Faced by Youths in Participating in Agriculture

3.3 Estimation Techniques

The type of data collected is the cross-sectional data collected from young people in Botswana. The data collected contained qualitative and quantitative data and were analyzed using descriptive and inferential statistics. Data obtained was therefore subjected to descriptive analyses, which include frequency and percentages to answer the research questions. Results were presented in tables and charts. Tests were done using Statistical Packages in Social Sciences.

The chi-square test was used to test the statistical significance of the data collected. Results were presented in tables and charts.

The Pearson's chi-square result is derived using the formula below to calculate the test statistic:

$$X^2 = \sum \frac{(O - E)^2}{E}$$

Where:

X^2 = the chi-square test statistic

Σ = the summation operator (it means "take the sum of")

O = the observed frequency

E = the expected frequency

The larger the difference between the observations and the expectations (O – E in the equation), the bigger the chi-square will be. The chi-square value is compared to a critical value using the degree of freedom to decide whether the difference is big enough to be statistically significant. In addition, the probability value can also be compared with the significance level to ascertain the statistical significance.

4. PRESENTATION AND DISCUSSION OF RESULTS

4.1 Demographic Data

Table 1: Distribution of the respondents by gender.

	Gender	Frequency	Percentage
Valid	Male	74	56.06%
	Female	58	43.94%
	Grand Total	132	100.00%

Source: Field Survey, 2023.

Table 2: Factors Influencing Youth in Choosing a Career Path

Factors influencing career path	Response
Economical factors	46
Economical factors, Social factors, Technological factors & Environmental Factors	12
Economical factors, Political factors, Social factors, Technological factors & Environmental Factors	10
Economical factors;Technological factors;Environmental Factors	9
Economical factors;Technological factors	7
Economical factors;Social factors;Environmental Factors	6
Environmental Factors	5
Technological factors	5
Economical factors;Political factors;Technological factors;Environmental Factors	5
Economical factors;Social factors	5
Economical factors; Political factors; Environmental Factors	4
Technological factors; Environmental Factors	2
Social factors	2
Economical factors; Political factors; Technological factors	2
Economical factors; Social factors; Technological factors	2
Economical factors; Political factors; Social factors	2
Economical factors; Political factors; Social factors; Environmental Factors	1
Economical factors; Political factors	1
Political factors; Technological factors; Environmental Factors	1

None	1
Economical factors; Political factors; Social factors; Technological factors	1
Political factors	1
Economical factors; Environmental Factors	1
Political factors & Environmental Factors	1
Grand Total	132

Source: Field Survey 2023

Based on Table 2, 46 respondents believed that economic factors are the most significant determinant of their chosen career path. Another 44 respondents claim that a combination of economic and other factors (Such as social, technological, environmental, and political factors) play a role in determining their career path. This is to show that youth are majorly influenced by the amount of income that will be earned from being involved in agriculture. To be involved in agriculture, they must be able to cater to their economic needs. In addition, today's youth are very smart and want to work in much smarter ways. They would only be enticed and attracted to agriculture if it employed modern technology. This is in reference to the number of youths who claimed that their chosen career path is influenced by economic, social and technological factors, which have the highest influences on youth when choosing their career path.

4.2 Challenges influencing Youth response to Agriculture

Challenges that hinder youth participation in agriculture and lack of capital emerged as the top challenges faced by young people interested in agricultural ventures. This serves as a major demotivating factor. These findings align with Njeru & Mwangi (2017) results, which highlight that insufficient capital and limited access to affordable credit are key contributors to the low productivity in the agricultural sector.

Furthermore, many respondents mentioned the lack of land or insufficient land for cultivation as another common challenge. The respondents highlighted that most youth do not have access to land, and the land ownership process can take up to 30 years, demoralising youth interested in venturing into agriculture. Lack of interest in agriculture also hindered youth from venturing into this field. The respondents argued that the agricultural programmes are not youth-friendly, as they require a lot of processes to access agricultural grants and loans. Mdege et al. (2022) identified a significant challenge that young people worldwide encounter when trying to enter farming – secure access to land. Unfortunately, young men and women face different obstacles when accessing land, with young women experiencing even greater challenges than their male counterparts.

Poor education or negative perception toward agriculture was another issue stated by the respondents on the challenges of youth participation in Agriculture, which is similar to the submission of Udemezue (2019) that youths perceive agriculture negatively. It is something one does if they fail in school, as migrants in town or abroad, or by the side of other non-farm businesses. Alternatively, it may not even be an option. Pressure on resources, especially land scarcity, poses serious barriers to entry for young people. Apparent insecurity around farming,

related to unpredictable climate variability, volatile food prices, and rising costs, further acts as a deterrent.

Another challenge noted by the respondents is the lack of access to technological tools and machinery that could aid the efficiency of youth participation in Agriculture. With the contemporary youth being digital native, they must have access to technological tools that could aid their work and make it easier and faster to get the job done. This was reiterated by CSAYN (2018), that Information and Communication Technology (ICT) has been of increasing growth and importance in recent years and is also very important in the agriculture sector; unfortunately, in universities, there is little or low inclusion of ICT for Agriculture training for students which can be an interesting aspect for youth if taken seriously.

Concurrently, the absence of accessible markets for selling agricultural produce emerges as an additional challenge voiced by respondents. This underscores the need for comprehensive solutions addressing various facets hindering youth participation in agriculture, ranging from financial constraints and land scarcity to negative perceptions and technological limitations.

4.3 Formal Education in Agriculture and Youth Participation

Table 3: Chi-square on the Relationship Between Education in Agriculture and Youth Participation

Formal Education in Agriculture	Youth Participation				Total
	Fully Aware	Aware	Not Sure	Not Aware	
No	20	53	6	7	86
Yes	22	22	0	2	46
Total	42	75	6	9	132
Pearson chi Square = 10.53					
Probability Value = 0.015					

Source: Field Survey 2023

H₀: There is no significant relationship between education in Agriculture and youth participation.

H₁: There is a significant relationship between education in agriculture and youth participation.

The result showed a Pearson chi-square value of 10.53 and a probability value of 0.015 in ascertaining the relationship between formal education in Agriculture and youth participation in Agriculture in Botswana. Since the significance level of 5% is greater than the probability value at 0.015, there is not enough evidence to accept the null hypothesis; hence, we conclude a significant relationship between formal education in Agriculture and youth participation in Agriculture. The study confirmed the need for youth to be educated on the importance and benefits of agriculture to the economic development of any country. Many people believe that agriculture is all about planting crops. Hence, they do not see the value chains attached to agriculture as part of agriculture, making them shy away from getting involved. Adequate education on the importance of agriculture is needed to encourage youth participation in Agriculture. Agriculture

education also helps youths to be aware of the different agricultural programmes and how they can benefit. The study results succinctly outline the importance of education in promoting youth involvement in agriculture. It is widely believed that agriculture is not economically lucrative. This is not entirely true, but it is true if most of the agricultural practice is done using crude implements, which limits productivity, the reason for which most farmers are poor. Educating the youth in agriculture will help reduce the stereotypical belief that agriculture is for people experiencing poverty.

5. Conclusion and Recommendations

Addressing the challenges faced by youth in agriculture in Botswana requires a holistic approach involving government policies, private sector engagement, and community initiatives. By promoting a positive image of agriculture, enhancing access to resources, and fostering a supportive regulatory environment, Botswana can harness the potential of its youth to drive innovation and sustainability in the agricultural sector, ensuring long-term food security and economic prosperity. Additionally, the government should make agriculture fashionable and attractive. This can be achieved by strategically investing in technology tailored to Botswana's climate and soil conditions. Technology that aligns with the country's unique environmental factors enhances the sector's efficiency and encourages the youth to perceive agriculture as a viable and attractive career option. Such investments contribute to the modernization and sustainability of agriculture in Botswana.

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