

**DETERMINANTS OF URBAN AND PERI-URBAN YOUTH EMPLOYMENT  
IN AGRIBUSINESS IN MALAWI**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENT FOR THE DEGREE OF MASTER OF ARTS IN PROJECT  
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AGRICULTURE. MOROGORO, TANZANIA.**

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## EXTENDED ABSTRACT

Agribusiness has been recognized to provide employment opportunities for youth in Malawi. However, little is known on factors that drive urban and peri-urban youth into agribusiness employment. This study examined the determinants of urban and peri-urban youth employment in agribusiness in Malawi. A cross-sectional study design was adopted. Sample size was 9680 youth for quantitative data while a sample of 135 for qualitative data. Quantitative data was obtained from nationally representative Living Standards Measurement Surveys - Integrated Household Survey (LSMS- IHS) data for Malawi and Regression analysis was used with the aid of STATA 14.0. Qualitative data was generated from focus group discussions and key informant interviews and the data was analysed using thematic analysis. The study found that 44.5% of youth were employed in agribusiness with 35.7% of them working in farming. Furthermore, the study found that age, access to credit, extension services and livestock ownership positively and significantly influenced youth employment in agribusiness ( $p < 0.05$ ). Whereas, marital status, education level, household size, dependency ratio, wealth, and distance to the market negatively and significantly influenced youth employment in agribusiness ( $p < 0.01$  and  $p < 0.05$ ). However, in the multinomial logit factors that influence youth employment into specific agribusiness categories vary. Thematic analysis confirm that the above factors influence youth to be in agribusiness. Moreover, findings revealed that despite opportunities in agribusiness, youth face challenges such as lack of access to credit, extension services, limited agribusiness education (training), lack of improved agricultural inputs and lack of access to land and markets among other things. Furthermore, results from Ordinary Least Square (Multiple Linear) Regression found a negative significant relationship between being employed in farming and per capita

consumption expenditure at  $p < 0.01$ . Whereas, there was a positive significant relationship between being employed in a mix of farming and non-agricultural business as well as being employed in off-farm agricultural activities with per capita consumption expenditure at  $p < 0.01$ . Generally, it can be concluded that youth employment in agribusiness is influenced more by push factors, which highlights the lack of government investment and support towards youth in agribusiness and the sector itself. The study recommends that implementation of policy pathways should be potentially geared towards improving access to credit, agricultural extension services, and education in agribusiness, improved agricultural inputs, land and markets among other things. This will promote youth employment in agribusiness and thus, improve well-being of youth.

**DECLARATION**

I, Dingase Kanchu Mkandawire do hereby declare to the senate of Sokoine University of Agriculture that this dissertation is my own original work done within a period of registration and that it neither been submitted nor being concurrently submitted in any other institution.

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**(Supervisor)**

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**DEDICATION**

This work is dedicated to the Almighty God and to my parents, Mr S. J and Mrs E.T. Mkandawire who laid the foundation of my study.

## TABLE OF CONTENTS

<b>EXTENDED ABSTRACT.....</b>	<b>ii</b>
<b>DECLARATION.....</b>	<b>iv</b>
<b>COPYRIGHT.....</b>	<b>v</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>vi</b>
<b>DEDICATION.....</b>	<b>vii</b>
<b>TABLE OF CONTENTS.....</b>	<b>viii</b>
<b>LIST OF TABLES.....</b>	<b>xii</b>
<b>LIST OF FIGURES.....</b>	<b>xiii</b>
<b>LIST OF APPENDICES.....</b>	<b>xiv</b>
<b>ABBREVIATIONS AND ACRONYMS.....</b>	<b>xv</b>
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Background Information.....	1
1.2 Problem Statement.....	3
1.3 Justification of the Study.....	5
1.4 Research Objectives.....	5
1.4.1 General objective.....	5
1.4.2 Specific objectives.....	6
1.5 Research Questions.....	6
1.6 Conceptual Framework.....	6
1.7 Organization of the Dissertation.....	9
1.8 Limitations and Strengths of the Study.....	9
References.....	9



<b>CHAPTER TWO.....</b>	<b>14</b>
<b>2.0 FACTORS INFLUENCING URBAN AND PERI-URBAN YOUTH</b>	
<b>EMPLOYMENT IN AGRIBUSINESS IN MALAWI.....</b>	<b>14</b>
2.1 Abstract.....	15
2.2 Introduction.....	16
2.3 Research Methodology.....	19
2.4 Study area description.....	19
2.5 Research Design.....	20
2.6 Sampling Design and Data Collection.....	20
2.7 Data Analysis.....	20
2.8 Results and Discussion.....	22
2.8.1 Socio-economic and demographic characteristics of youth.....	22
2.8.2 Distribution of youth according to employment category by location.....	25
2.8.3 Distribution of youth according to employment category and sex.....	25
2.8.4 Determinants of urban and peri-urban youth employment in agribusiness.....	28
2.8.5 Determinants into specific agribusiness employment categories.....	32
2.8.6 Opportunities and challenges experienced by youth in agricultural-related enterprises.....	38
2.8.6.1 Opportunities in agricultural-related enterprises.....	38
2.8.6.2 Challenges in agricultural-related enterprises.....	39
2.9 Conclusion and Recommendations.....	42
References.....	43
<b>CHAPTER THREE.....</b>	<b>48</b>

<b>3.0</b>	<b>CONTRIBUTION OF YOUTH EMPLOYMENT IN AGRIBUSINESS TO THEIR SOCIO-ECONOMIC WELL-BEING IN URBAN AND PERI-URBAN AREAS OF MALAWI.....</b>	<b>48</b>
3.1	Abstract.....	49
3.2	Introduction.....	50
3.3	Research Methodology.....	52
3.4	Description of the Study Area.....	52
3.5	Research Design.....	53
3.6	Sampling Procedure and Data Collection.....	54
3.7	Data Analysis.....	54
3.8	Results and Discussion.....	56
3.8.1	Socio-economic and demographic characteristics of youth.....	56
3.8.2	Distribution of youth by employment categories.....	58
3.8.3	Distribution of per capita consumption expenditure by sex.....	59
3.8.4	Association between youth employment in agribusiness and subjective well-being Indicators.....	60
3.8.5	Association between youth employment in agribusiness and per capita consumption expenditure.....	65
3.9	Conclusion and Recommendations.....	69
	References.....	70
	<b>CHAPTER FOUR.....</b>	<b>74</b>
<b>4.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>74</b>
4.1	Summary of Major Findings.....	74
4.1.1	Determinants of urban and peri-urban youth employment in agribusiness.....	74

4.1.2	Contribution of youth employment in agribusiness to their socio-economic well-being.....	75
4.2	Conclusions.....	76
4.3	Recommendations.....	77
4.4	Area for Further Studies.....	77
	<b>APPENDICES.....</b>	<b>78</b>

### LIST OF TABLE

Table 2.1: Distribution of respondents by demographic characteristics.....	23
Table 2.2: Socio-economic characteristics of youth.....	24
Table 2.3: Percentage of youth according to employment category by location.....	25
Table 2.4: Bivariate logit analysis of determinants of youth employment in agribusiness.....	29
Table 2.5: Multinomial analysis on determinants into specific agribusiness categories.....	34
Table 2.6: Challenges experienced by youth in agricultural-related enterprises.....	40
Table 3.1: Socio-economic characteristics of youth.....	57
Table 3.2: Percentage of youth according to employment categories.....	59
Table 3.3: Percentage of youth by per capita consumption expenditure and sex.....	60
Table 3.4: Chi-square test of association between youth employment in agribusiness and subjective well-being indicators.....	61
Table 3.5: OLS analysis of the relationship between youth employment in agribusiness and Log per capita consumption expenditure.....	66

Y

**LIST OF FIGURE**

Figure 1.1: Conceptual Framework.....8

Figure 2.1: Map showing the four urban and peri-urban areas in Malawi.....19

Figure 2.2: Distribution of employment categories in agribusiness by gender.....27

Figure 3.1: Map showing the four urban and peri-urban areas in Malawi.....53

Y

**LIST OF APPENDICES**

Appendix 4.1: Description of variables used in the study.....78

Appendix 4.2: Description of variables used in the study.....79

Appendix 4.3: Questionnaire for Respondents.....80

Appendix 4.4: Key informant interview guide (checklist).....82

Appendix 4.5: Focus group discussion guide.....83

### **ABBREVIATIONS AND ACRONYMS**

ACADES	Associated Centre for Agro-Based Development and Entrepreneurship Support
AGRA	Alliance for a Green Revolution in Africa
AU	African Union
FGD	Focus Group Discussions
GoM	Government of Malawi
HCT	Human Capital Theory
IHS	Integrated Household Survey
IITA	International Institute for Tropical Agriculture
ILO	International Labour Office
IYDP	Integrated Youth Development Programme
KII	Key Informant Interviews
LSMS	Living Standards Measurement Studies
MGDS	Malawi Growth and Development Strategy
MNL	Multinomial Logit Model
MWK	Malawian Kwacha
NSO	National Statistic Office
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
OVOP	One Village One Product
SDGs	Sustainable Development Goals
SSA	Sub-Saharan Africa
SWB	Subjective Well-being
UN	United Nations

WB World Bank



## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

Youth face challenging employment prospects in Africa with majority working in low productive jobs (Betcherman and Khan, 2015). Youth struggle to secure gratifying livelihoods in low-income countries despite entering the labour force in unprecedented numbers (Fox and Kaul, 2017). According to Fox *et al.* (2016), employment in the formal wage sector remains elusive, with the formal sector employment unable to absorb the large number of young people (AGRA, 2015). Most youth are in vulnerable employment operating in small, unincorporated family businesses as self-employees or as contributing family workers without pay (Elder *et al.*, 2015). According to International Labour Office (ILO) (2019), 23 percent of youth globally are engaged in formal employment while 77 percent are in informal employment. Losch (2016) highlighted that over 17 million young Africans will enter working age each year until 2035. Evidence shows that youth are three times as likely as adults to be unemployed (ILO, 2017).

In Malawi, youth unemployment is high, standing at 27.5 percent for youth aged 15-24 years and 23.0 percent for youth aged 15-34 years compared to 20.4 percent of the total unemployment rate (NSO, 2018). According to Fox *et al.* (2016), not much change has been observed in the employment structure due to failure of African economies including Malawi to structurally transform from low productivity agriculture to high productivity non-agricultural sectors. In addition, Chinsinga and Chasukwa (2018) point out that efforts to address youth unemployment in Malawi have been inadequate and affected by

misplaced government efforts; as most policies (i.e. Malawi National Youth Policy 2013) and programs have not paid explicit attention to agricultural sector, though one advantage of the sector is promotion of youth employment. According to Filmer and Fox (2014), most youth employment programs have been not linked to agricultural sector.

Agriculture can be a source of livelihood for youth in Malawi. According to FAO (2019), agriculture remains the principal livelihood opportunity for many people including youth. In Malawi, agriculture is seemingly the default employment category for all, including those living in urban centres (Benson *et al.*, 2019). As such, the Government of Malawi and development partners have been implementing youth-based programs in agribusiness with the aim of providing youth with training and resources to promote employment in agribusiness. For example, the Integrated Youth Development Program (IYDP), One Village One Product (OVOP) program in Malawi and Associated Centre for Agro-Based Development and Entrepreneurship Support (ACADES) are some of the programs. According to Yami *et al.* (2019) interventions implemented by governments and development partners across Africa have produced favourable outcomes such as youth start-ups in agribusiness and gainful youth employment in the agricultural value chains among other things.

Agribusiness can provide employment opportunities. According Koira (2016), agribusiness covers a wide range of activities that generate economic value including farming, manufacturing and services that connect farmers to consumers. Thus, presenting great employment opportunities. Proctor and Lucchesi (2012) pointed out that agriculture and agrifood sectors offer new opportunities for job creation. It can boost productivity of

primary agricultural products leading to expansion of business resulting in wage or self-employment opportunities created for youth (Yumkella *et al.*, 2011). Literature has shown that acquisition of farm skills, access to credit, land reforms and infrastructure provide better livelihoods for youth in agriculture (Filmer and Fox, 2014; Betcherman and Khan, 2015).

Despite the potential of agribusiness through the value chain, youth still face challenges. Studies have highlighted that youth in agribusiness lack access to credit, improved technologies, practical skills and fair markets including other logistics and services. As well as limited access to land, extension services, limited inclusion and lack of favourable environment for creating a sense of ownership by youth in agricultural value chain (Sanginga, 2015; Etela and Onoja, 2017; Betcherman and Khan, 2018; Lindsjo *et al.*, 2020). According to Chinsinga and Chasukwa (2018), youth and agricultural policy framework in Malawi provides little support to youth in terms of access to affordable farm inputs, land, extension services, value addition initiatives and access to markets. Additionally, youth in Malawi face numerous and interconnected challenges and thus youth suffer simultaneous well-being deprivations (OECD, 2018). Therefore, the study aimed at identifying key determinants of urban and peri-urban youth employment in agribusiness in Malawi.

## **1.2 Problem Statement**

Despite government and development partners' continuous efforts to promote youth employment, youth in Malawi still experience high unemployment rate. According to Malawi National Statistics Office (NSO), youth unemployment rate in Malawi is higher

than total unemployment rate with higher rates in urban (28.2%) than rural areas (19.2%) (NSO, 2014). Rural youth enjoy greater access to employment than those in urban areas (OECD, 2018). According to Dekker and Hollander (2017), youth are not a homogenous group and can be classified in at least four groups: rural youth working on family farm; low-skilled, self-employed youth in urban or rural survival enterprises; young apprentices in rural or urban individual enterprises, and youth urban graduates seeking formal wage-employment. These groups face diverse employment and employability constraints.

Among the existing studies, a few studies (Broeck and Kilic, 2019; Benson *et al.*, 2019; Kafle *et al.*, 2019) have examined factors that influence urban and peri-urban youth employment in agribusiness in Malawi, as most studies have focused on rural youth with case or country specific variations. For example, study done in SSA by Broeck and Kilic (2019) analysed dynamics of off-farm employment and found that country and gender specific factors, with demographic factors, shocks and job characteristics are important determinants of off-farm employment. Benson *et al.* (2019) analysed youth employment patterns in Malawi and found that capital, work experience and social networks enable individuals to work outside agriculture with education being the least important factor.

Similarly, Kafle *et al.* (2019) examined the dynamics of youth employment in agriculture in Malawi and Tanzania. They found high degree of youth participation in farming in Malawi but participation in an agri-food enterprise remains constant. Ismail (2018) established that there is limited knowledge on employment experiences and barriers for particular youth groups. Therefore, the aim of this study was to identify key determinants of urban and peri-urban youth employment in agribusiness in Malawi and its implications

on well-being of youth. Associated Centre for Agro-Based Development and Entrepreneurship Support (ACADES) was used as a case study in this research as it has grown to be the largest network of youth in agribusiness in Malawi with over 3000 members. It provides the much needed evidence as it promotes employment through investment in agribusiness by supporting youth in agribusiness.

### **1.3 Justification of the Study**

Lack of adequate evidence on youth employment in agribusiness hamper Government and development partners' continuous efforts to deal with youth unemployment. Therefore, the study highlights the potential of agribusiness in promoting youth employment. Hence, fosters evidence-based policy formulation and improvements. The study contributes to the literature on youth employment by adding agribusiness and urban and peri-urban dimensions. Additionally, by using the nationally-representative survey data for Malawi and a mixed method approach, it provides recent empirical evidence on determinants of urban and peri-urban youth employment in agribusiness in Malawi.

The triangulation from the mixed methods approach helps to fully understand the factors that influence youth employment in agribusiness. In addition, the study is in line with Malawi Growth and Development Strategy (MGDS) III (2017-2022) which emphasizes youth development in all sectors and National Youth Policy (2013) which stresses youth empowerment to realize their full potential (GoM, 2013). It is also in line with Sustainable Development Goals (SDGs) pertaining to economic and social sustainability (e.g. Goal 8 - Decent work and economic growth; 1- No poverty, 2- Zero hunger). According to Christiansen *et al.* (2010), agribusiness is responsible for economic status of

majority of world's poor. It provides food, feed, other consumption goods and industry inputs (Hinson *et al.*, 2019).

## **1.4 Research Objectives**

### **1.4.1 General objective**

The general objective of the study was to determine factors influencing urban and peri-urban youth employment in agribusiness in Malawi.

### **1.4.2 Specific objectives**

- i. To identify the determinants of youth employment in agricultural-related enterprises in urban and peri-urban areas.
- ii. To analyse opportunities and challenges experienced by urban and peri-urban youth in agricultural-related enterprises.
- iii. To assess the contribution of youth employment in agricultural-related enterprises to their socio-economic well-being.

## **1.5 Research Questions**

- i. What are the determinants of youth employment in agricultural related enterprise in urban and peri-urban of Malawi?
- ii. What are the opportunities and challenges faced by youth in agricultural related enterprises?
- iii. How does youth employment in agricultural-related enterprises contribute to their socio-economic well-being?

## **1.6 Conceptual Framework**

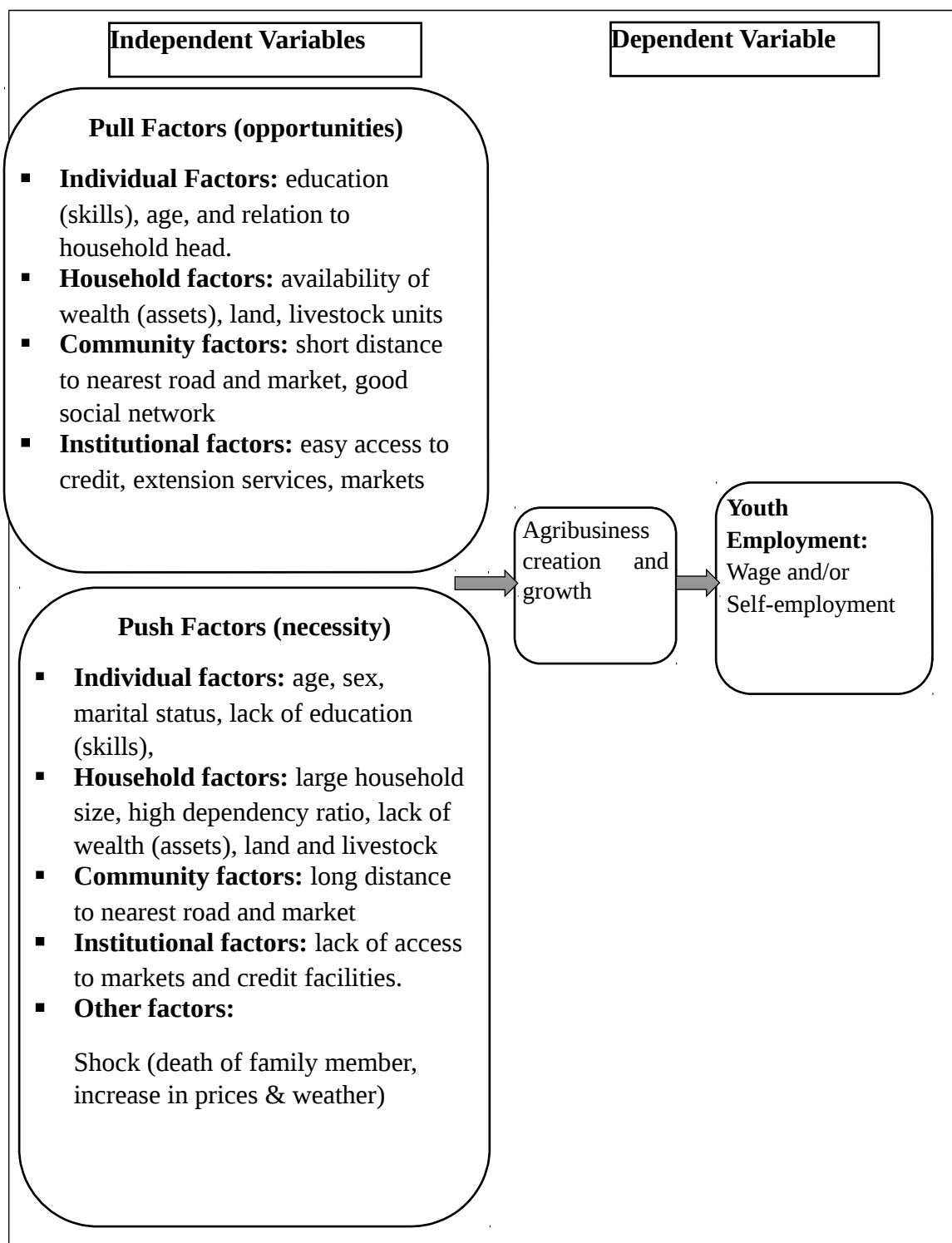
This study adopts a conceptual framework which represents the hypothesised relationship among push and pull variables influencing youth employment in agribusiness based on

theoretical and empirical review of literature (Figure 1.0). Youth employment in agribusiness (dependent variable) is influenced by push and pull factors (explanatory variables). Pull factors refer to opportunities whereas push factors are necessity. These push and pull factors determine youth employment in agribusiness (Haggblade *et al.*, 2010; Broeck and Kilic, 2019). The pull factors are positive factors that attract youth into agribusiness employment to improve their welfare while push factors are negative factors that force youth to seek supplementary income sources outside the farm (Alobo, 2015). These factors are grouped into individual factors (sex, age, marital status, relationship to household head, education), household factors (land ownership, livestock ownership, and assets owned (wealth), household size and dependency ratio). Community factor (access to road, market), institutional factors (access to credit, extension services) including shock (Neira *et al.*, 2013; Broeck and Kilic, 2019).

The pull factors included in the study were education (skills), relation to household head, availability of wealth (assets), owning land or livestock, short distance to the nearest road and market, good social network, easy access to credit, extension services and markets. On the other hand, push factors included in the study are age, sex, marital status, lack of education (skills), large household size, high dependency ratio, lack of wealth (assets), lack of land and/or livestock, long distance to the nearest road and market, lack of agricultural productive assets, lack of markets, credit, experiencing idiosyncratic shock (illness or death of family member *etc.*). These pull and push factor influence youth' decision to engage in agribusiness or not. According to Broeck and Kilic (2019) push factors play a significant role than pull factors in SSA.

This paper focuses on urban and peri-urban youth and there is no universally accepted definition of the term 'youth'. The United Nation (UN) uses the ages from 15 to 24, while in Malawi youth is aged 10-35 (Government of Malawi, 2013) and this study adopts the definition of youth by African Union (AU) Commission which uses the ages 15-35. In Malawi, urban areas are those within government-defined city limits while peri-urban areas are those adjoining to urban areas or outside city limits.





**Figure 1.1: Conceptual Framework**

**Source: Author based on studies by Broeck and Kilic (2019) and Haggblade *et al.* (2010)**

## **1.7 Organization of the Dissertation**

The dissertation is organized in four chapters. The first chapter consists of the extended abstract and introduction of the overall study. In addition, it describes the concepts presented in the manuscripts. The second chapter consist of publishable manuscript which covers objectives one and two and provides answers for research question one and two. The third chapter consist of publishable manuscript which covers objective three and provides answers for research question three. The fourth chapter presents the study's conclusions and recommendations.

## **1.8 Limitations and Strengths of the Study**

This study had some limitations. Firstly, the use of qualitative approach such as the use of focus group discussions and key informants interviews inhibits the ability to generalize the research findings. Second, the cross sectional nature of data used in this study does not make causal inferences rather correlation. Therefore, there is need for further research using longitudinal data that could measure causal relationship and control for unobserved factors.

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## CHAPTER TWO

### 2.0 FACTORS INFLUENCING URBAN AND PERI-URBAN YOUTH EMPLOYMENT IN AGRIBUSINESS IN MALAWI

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## 2.1 Abstract

The study aimed at identifying key determinants of urban and peri-urban youth employment in agribusiness in Malawi. The study adopted a cross-sectional research design. This study used quantitative data obtained from the Fourth Integrated Household Survey (IHS4) for Malawi with a sample of 9680 youth using stratified two-stage sampling technique. Qualitative data was generated from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with a sample of 135 participants. Regression analysis was done with the aid of STATA 14. Qualitative data were analysed by thematic analysis. The study found that age, access to credit, agricultural extension services and livestock ownership have positive significant association with youth employment in agribusiness at  $p < 0.01$ . Whereas, sex, marital status, education level, household size, dependency ratio, wealth and distance to market had negative significant influence on youth employment in agribusiness at  $p < 0.01$  and  $p < 0.05$ . The study concluded that age, sex, marital status, education level of youth, household size, dependency ratio, wealth, access to credit and agricultural extension services. As well as shock, livestock ownership and distance to the market are key determinants of youth employment in agribusiness. The study recommends that government should facilitate increase access to credit, agricultural extension services, education in agribusiness and increase in access to markets among youth, in order to promote youth employment in agribusiness.

**Keywords:** Agribusiness, Push and Pull Factors, Urban and peri-urban, Youth employment

## 2.2 Introduction

Youth face challenging employment prospects in Africa with majority working in low productive jobs (Betcherman and Khan, 2015). According to Fox *et al.* (2016), employment in the formal wage sector remains elusive, with the formal sector employment unable to absorb the large number of young people (AGRA, 2015). Most youth are in vulnerable employment, operating in small, unincorporated family businesses as self-employees or as contributing family workers without pay (Elder *et al.*, 2015). According to International Labour Office (ILO), youth are three times more likely to be unemployed than adults (ILO, 2017). Employment according to ILO comprises all person of working age, who during a specified short-term period were either in paid employment (whether at work or with a job but not at work) and self-employment (whether at work or with an enterprise but not a work).

In Malawi, youth unemployment rate stands at almost 23 percent among youth aged 15-34 years, and is slightly higher among the youth aged 15-24 years compared to 20.4 percent total unemployment rate. Youth unemployment rate is much higher in urban (28.2%) than rural areas (19.2%) (NSO, 2014). In addition, OECD (2018) reported that rural youth enjoy greater access to employment than those in urban settings. According to Fox *et al.* (2016) not much change has been observed in the employment structure due to failure of African economies including Malawi to structurally transform from low productivity agriculture to high productivity non-agricultural sectors. Similarly, Chinsinga and Chasukwa (2018) reported that efforts to address youth unemployment in Malawi

have been inadequate and affected by misplaced government efforts; as most policies and programs have not paid explicit attention to agricultural sector, though one advantage of the sector is promotion of youth employment.

The importance of engaging youth in agriculture has been increasingly recognized globally to reduce youth unemployment (FAO, 2019). The government of Malawi and development partners have implemented youth employment programs in agribusiness to empower youth. Yami *et al.* (2019) reported that programs implemented by governments and development partners across Africa have produced favourable outcomes such as youth start-ups in agribusiness and gainful youth employment in the agricultural value chains among other things. Proctor and Lucchesi (2012) coined that agriculture and agrifood sectors offer new opportunities for job creation. Thus, the need for agribusiness growth is undeniable, as it presents great employment opportunities in Sub-Saharan Africa (SSA) (Koira, 2014). According to a study by Alemu (2016), agribusiness has great potential in diversifying employment for youth by improving their livelihoods and income sources. Literature defines agribusiness as all operations involved in farming, manufacturing, processing and distribution, marketing, wholesale and retail sales (Van Fleet, 2016).

Nevertheless, youth still face challenges of lacking access to credit, improved modern technologies, practical skills and fair markets necessary including logistics and services as well as pressure on arable land that affects agribusiness success (Sanginga, 2015; Betcherman and Khan, 2018). Also, Alemu (2016) reported that loose connection in value chain, poor market opportunities, capacity development and linkage between agribusiness and research which downsize the potential of agribusiness in creating livelihood

opportunities for youth in particular. Similarly, Etela and Onoja (2017) demonstrated challenges with the extent of youth employment in agriculture are due to that limited inclusion and lack of favourable environment for creating a sense of ownership by youth in agricultural value chain. According to Chinsinga and Chasukwa (2018) youth and agricultural policy framework in Malawi provide little support to youth in terms of access to affordable farm inputs, land, extension services, value addition initiatives and access to markets. In addition, Lindsjo *et al.* (2020) highlighted that youth in Malawi have limited access to land, extension services and credit that hinder agricultural intensification. According to Ismail (2018) there is limited knowledge on employment experiences and barriers for particular youth groups.

Literature indicates that youth employment in agribusiness is determined by push (necessity) and pull (opportunities) factors (Haggblade *et al.*, 2010; Broeck and Kilic, 2019). For example, Benson *et al.* (2019) analysed rural youth employment patterns in Malawi and found that capital, work experience social networks enable individuals to work outside agriculture with education being the least important factor. A study by Broeck and Kilic (2019) analysed dynamics of off-farm employment in Ethiopia, Malawi, Nigeria, Tanzania and Uganda and established that country and gender specific with demographic factors, shocks and job characteristics as important determinants of off-farm employment. Push factors play a significant role than pull factors in Sub-Saharan Africa.

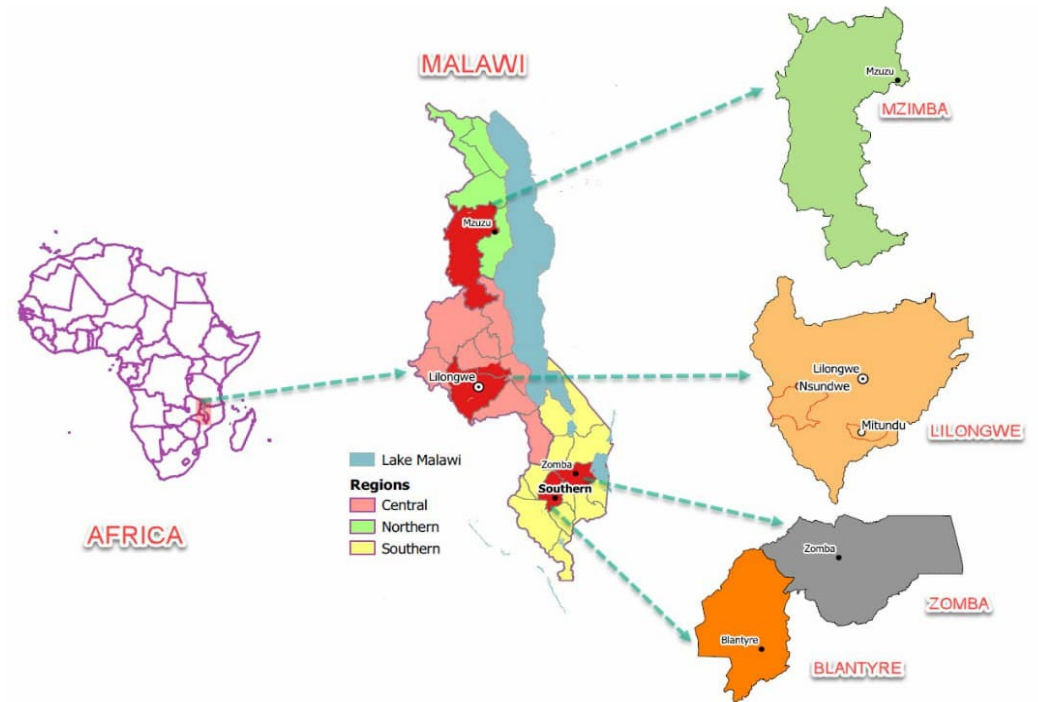
From these studies, it can be observed that little has been done on the key determinants of urban and peri-urban youth employment in agribusiness in Malawi. As such, the study was carried out to identify key factors influencing youth employment in agribusiness in

urban and peri-urban areas of Malawi and propose policy options to enhance youth employment in agribusiness. It is important to focus on youth employment in agribusiness in urban and peri-urban areas as unemployment is high in these areas and that, agribusiness has shown to have employment prospects for people including youth. Associated Centre for Agro-Based Development and Entrepreneurship Support (ACADES) was used as a case study in this research as it has grown to be the largest network of youth in agribusiness in Malawi with over 3000 members. It works with farmers and farmer groups in commercializing smallholder farming enterprises through provision of loans, skills training and profitable markets. ACADES provides the much needed evidence as it promotes employment through investment in agribusiness by supporting youth in agribusiness.

### **2.3 Research Methodology**

#### **2.4 Study area description**

The study was conducted in urban and peri-urban areas of Malawi namely Lilongwe, Blantyre, Mzuzu and Zomba. Mzuzu is the main urban area in the Northern Region found at (11.4390° S; 34.0084° E); Zomba and Blantyre are main urban areas found in the Southern Region found at (15.3766° S; 35.3357° E) and (15.4705° S; 35.0030° E) respectively and Lilongwe is in Central Region found at (13.9626° S; 33.7741° E). Lilongwe was further sampled as a case study involving two areas namely Mitundu and Msundwe. Lilongwe was selected as it is the largest urban area situated at the centre of a large agricultural area and where most ACADES' (Associated Centre for Agro-Based Development and Entrepreneurship Support) initiatives are launched and promoted.



**Figure 2.1: Map showing the four urban and peri-urban areas in Malawi**

**Source: Author's construct with help from Clyde Kalima**

## 2.5 Research Design

The study employed a cross-sectional research design as it allowed collection of similar data from youth in different areas and data collected at one point in time (Neuman, 2014).

## 2.6 Sampling Design and Data Collection

A stratified two-stage sampling design was used to sample 9680 youths age 15-34 years for quantitative analysis. Quantitative data used in the study was obtained from nationally representative Fourth Integrated Household Survey (IHS4) data for Malawi. Purposive sampling technique was used to sample 135 participants for qualitative analysis in Lilongwe. Qualitative data was collected using key informant interviews and focus group discussions. The key informant interviews involved 17 participants and 12 focus group discussions with a range of 7 to 10 participants. The focus group discussions were

conducted with youth who engage in agribusiness and some of them were involved with the Associated Centre for Agro-Based Development and Entrepreneurship Support (ACADES). A combination of quantitative and qualitative analysis was adopted to address the research objectives.

**2.7 Data Analysis**

STATA 14 was used for quantitative data analysis Quantitative data were analysed using descriptive statistics., The bivariate logit model was used to estimate key factors determining urban and peri-urban youth employment in agribusiness. The bivariate logit model is specified as follows:

$$Y = \text{Ln} (P / (1 - P)) \dots\dots\dots (1)$$

$$Y = \text{Ln} (P / (1 - P)) = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4} + \dots B_k X_{ik} + \epsilon_i \dots\dots\dots (2)$$

Where:

Y = Dependent binary variable (employed in agribusiness = 1, not employed = 0),  
 P = Probability of being employed in agribusiness, 1 - P = Probability of being unemployed.

Ln = Natural logarithm function

$\beta_0$  = Constant

$\beta_1 - \beta_k$  = Regression coefficients

$X_1$  = Age

$X_2$  = Sex (Female 1, 0 Male)

$X_3$  = Marital status (never married 1, married 2, separated/divorced 3 and widowed 4)

$X_4$  = Religion (Had religion 1, 0 no religion)

$X_5$  = Household head (HH head 1, 0 other)

$X_6$  = Education level (none 1, primary 2, secondary 3, and tertiary 4)

$X_7$  = Household size (total number of people in a household)

$X_8$  = Dependency ratio (total number of dependants)

$X_9$  = Wealth Index (asset accumulation)

$X_{10}$  = Land ownership (land size in hectares)

$X_{11}$  = Livestock ownership (total number of livestock)

$X_{12}$  = Access to credit (1 Yes, 0 No)

$X_{13}$  = Access to extension services (1 Yes, 0 No)

$X_{14}$  = Distance to nearest road (Kms)

$X_{15}$  = Distance to market (Kms)

$X_{16}$  = Idiosyncratic Shock

$\epsilon_i$  = Random error term.

Odds Ratio (OR) are reported for bivariate logit model but in the paper marginal effects are reported. Description of variables is shown in appendices (Appendix 4.1). The Multinomial Logit Model (MNL) was used to estimate factors that determine urban and peri-urban youth into specific agribusiness employment categories. The MNL is specified as follows:

$$EMA_{ji} = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4} + \dots + \beta_k X_{ik} + \epsilon_i \dots \dots \dots (3)$$



Where:

$EMA_{ji}$  = dependent variable (employment categories). The model used the same explanatory variables used in bivariate logit model. The sample was split into seven employment categories: youth who work solely in farming (whether family or ganyu (casual labour)); youth who work solely in Off-farm agricultural activity (either selling agricultural products, working in agricultural shop or office); youth who work in a mix of farming and off-farm agricultural activity; youth working in a mix of farming and apprenticeship; youth working in a mix of farming and off-farm non-agricultural activity; youth working in a mix of farming and non-agricultural business; youth working in a mix of Off-farm agricultural activity and non-agricultural business; and youth who are Unemployed (reference category). Unemployed was set as the reference category (outcome), in MNL one category of the dependent variable which has large number of observations is chosen as the reference category (Small and Hsiao, 1985). Relative Risk Ratio (RRR) are reported for MNL. The coefficients are calculated in relation to the base category (outcome). Qualitative data were analysed using deductive coding (thematic analysis) involving software aided coding strategies.

## **2.8 Results and Discussion**

### **2.8.1 Socio-economic and demographic characteristics of youth**

The results in Table 2.1 show that youth employed in agribusiness had an average age of youth 22.7 years while unemployed youth had an average age of 23.7 years. Indicating that most youth were in the economically active age. Most of the youth in the study were

females (58.5%) compared to males, with majority being unemployed than employed in agribusiness. This is consistent with findings by Benson *et al.* (2019) which found that female youth are more likely to be unemployed. Over half of youth were never married and had a form of religion. The average household size of youth was 5 household members. Majority of youth had no formal education. Implying that most youth were less educated because of many reasons like dropout due to lack of fees among other things (Table 2.1).

**Table 2.1: Distribution of respondents by demographic characteristics**

Variable	Employed in Agribusiness  n = 4309	Unemployed  n= 5371	Total Sample  n= 9680	Diff. t-test
Age	22.7 (6.16)	23.7 (6.24)	23.5 (6.18)	9.34***
Household head	2.8 (1.67)	2.8 (2.05)	2.8 (1.89)	2.16**
<i>Sex (%)</i>				5.44***
Male	19.5	22.1	41.5	
Female	23.5	35.1	58.5	
<i>Marital Status (%)</i>				-7.51***
Married	38.1	45.1	42.4	
Separate/divorced	5.6	5.8	5.7	
widowed	0.007	0.01	0.008	
Never married	55.6	47.3	51.0	
<i>Religion (%)</i>				3.84***
No religion	2.9	1.7	2.9	
Have religion	97.1	98.3	97.8	
Household size	5.2 (1.93)	5.5 (1.91)	5.4 (1.93)	8.73***
Dependency ratio	0.9 (0.71)	1.0 (0.73)	1.1 (0.71)	7.08***

<i>Education Level (%)</i>				-15.01***
No Education	61.7	46.2	53.0	
Primary	14.8	16.1	15.5	
Secondary	21.5	33.0	27.9	
Tertiary	2.0	4.6	3.5	

**Note: Standard deviations are given in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 denotes significant levels.**

**Source: Authors' estimation based on IHS4 data.**

Results in Table 2.2 show that youth in employed in agribusiness have relatively small wealth accumulation (assets) than unemployed youth. This is consistent with Schmidt and Woldeyes (2019) who found that youth in Ethiopia have less asset accumulation. The study results also show that youth employed in agribusiness had access to credit and extension services more than those unemployed (Table 2.2). Youth employed in agribusiness had an average land size of 0.04 hectares more than unemployed youth, indicating that most of the youth were small-scale farmers. This confirms the findings by Asfaw and Maggio (2018) who found that farm size is less than one hectare for most small-scale farmers in Malawi. The study results also show that less than half of youth experienced idiosyncratic shock with an average distance to the market and road of about 9.1 kms (Table 2.2). The results also show that less than half of youth residing in urban areas were employed in agribusiness while over half of youth in peri-urban areas were employed in agribusiness compared to unemployed.

**Table 2.2: Socio-economic characteristics of youth**

Variable	Employed n = 4309	Unemployed n= 5371	Total Sample n= 9680	Diff. t-test
Wealth Index	0.3 (1.75)	0.9 (2.07)	0.7 (1.95)	14.99***
Extension Service (%)	71.9	43.6	56.2	-29.05***
Credit (%)	33.2	30.9	31.9	-2.39**
Shock (idiosyncratic)	43.9	49.67	47.1	5.63***
Land ownership (ha)	0.04 (0.22)	0.02 (0.15)	0.03 (0.18)	-6.45**
Livestock ownership (tlu)	0.2 (0.64)	0.1 (0.56)	0.1 (0.61)	-6.77***
Distance to road (km)	9.7 (23.14)	8.6 (34.45)	9.1 (29.91)	-1.72*
Distance to market (km)	7.8 (10.41)	9.9 (11.49)	9.1 (11.07)	9.58***
<i>Location (%)</i>				-29.13***
Urban area	31.4	68.6	53.7	
Peri-Urban area	56.7	40.3	46.3	

Note: Standard deviations are given in parentheses. TLU = Tropical Livestock Unit. .  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 denotes significant levels.

Source: Authors' estimation based on IHS4 data

### 2.8.2 Distribution of youth according to employment category by location

The results in Table 2.3 shows that over half of youth in urban areas (68.6%) were unemployed compared to youth in peri-urban areas (40.3%). This could be attributed to lack of jobs in urban areas because of high population through rural-urban migration among other things. From those youth who were employed in agribusiness, peri-urban youth were more likely to be employed in agribusiness than urban youth (Table 2.3) with majority being employed in farming (family or ganyu (casual labour)) than other agribusiness categories. This indicates that most youth in both urban and peri-urban work in farming.

**Table 2.3: Percentage of youth according to employment category by location  
(n=9680)**

<b>Employment Categories</b>	<b>Urban</b>	<b>Peri- urban</b>
Farming (family or casual labour)	20.95	52.94
Farming and Non-agricultural business	4.24	4.93
Farming and Off-farm agricultural activity	0.31	0.25
Off-farm agricultural activity and Non-agricultural business	0.15	0
Farming and Unpaid Apprenticeship	0.23	0.04
Off-farm agricultural activity	2	0.29
Farming and off-farm non-agricultural activity	3.52	1.25
Unemployed	68.6	40.3

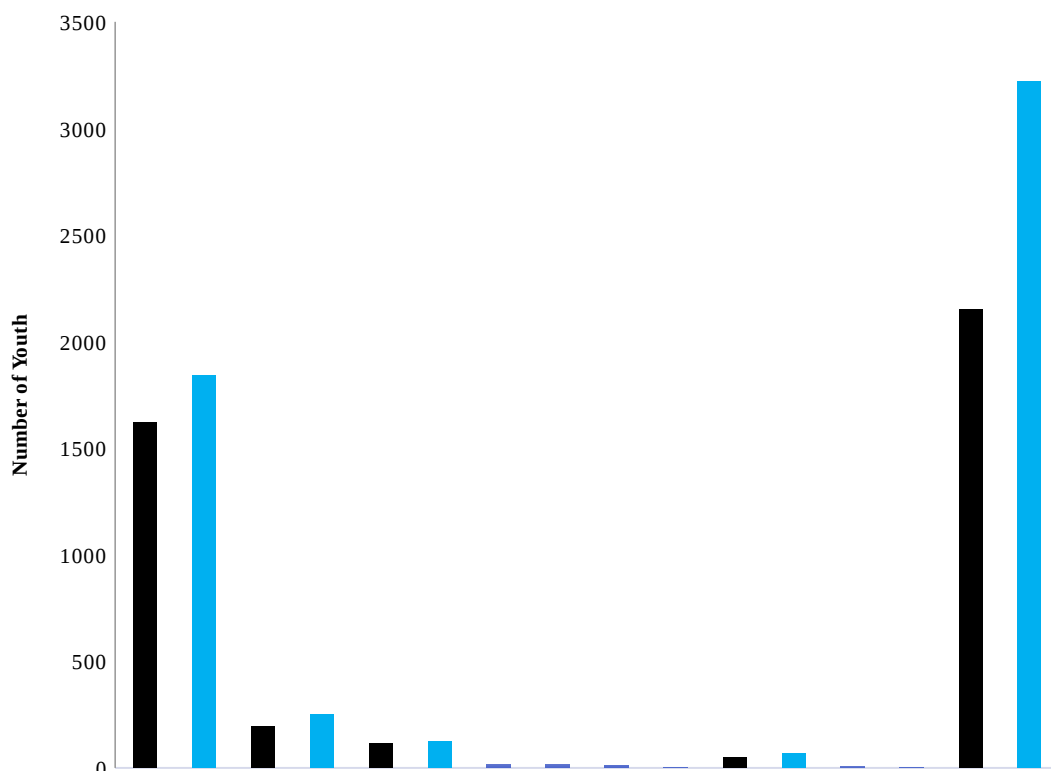
### 2.8.3 Distribution of youth according to employment category and sex

The results in Figure 2.2 shows that both male and female youth were more likely to be unemployed, with females (33.0%) being more unemployed than males (22.5%). This is consistent with Benson *et al.* (2019) who reported that females tend to be not economically active than males. Of those youth employed in agribusiness, about 19.1% of female youth were employed in farming (family or ganyu) compared to males (16.7%). Suggesting that female youth are more likely to be employed in the farming as it is easy for them to do other household responsibilities. This supports the findings reported by Benson *et al.* (2019) that females are more likely to work on the farm than males. The results show that over half of females were employed in a mix of farming and non-agricultural business as well as in a mix of farming and off-farm non-agricultural activity compared to males (Figure 2.2). Similarly, more females were employed in a mix of farming and off-farm agricultural activity as well as in off-farm agricultural activity compared to male youth.

On the other hand, 2.7% of female youth were employed in a mix of farming and unpaid apprenticeship compared to males (2.0%). Whereas, 0.2% of both male and female youth were in a mix of off-farm agricultural activity and non-agricultural business compared to females (Figure 2.2). Suggesting that males are more likely to have access to opportunities than females, because females are viewed to have responsibilities at home. Off-farm agricultural activity include activities like agro-processing industry and wholesale and retail trading. Overall, this study findings suggest that female youth are more likely to be employed in agribusiness than their males with majority working in farming. Implying that females dominate in agribusiness employment especially farming as it is easy for them. This is consistent with Benson *et al.* (2019) who found that women are remaining in agriculture to a much greater extent than men in Malawi. Similarly, Broeck and Kilic (2019) who found that the gender gap in self and wage employment in off-farm employment has reduced.

Additionally, it was revealed during focus group discussions that unmarried female youth are more likely to engage more in agribusiness than males because of the need to take care of the family and children's needs. However, female youth employment in agribusiness is affected by marital status and socio-cultural norms embedded in the communities that place females to be at home. FDGs participants elaborated that married females tend to engage less in agribusiness, due to their husbands' refusing them to participate in agribusiness activities out of jealousy and thinking that their wives will indulge in immoral behaviours with their male counterparts. However, FGDs participants further underscored that both married and unmarried female youth have less opportunities

and resources to engage in agribusiness. Suggesting that socio-cultural and economic challenges inhibit employability of females in agribusiness. This substantiate studies that young women face gender challenges in agricultural value chains that affect their involvement (Anania and Kimaro, 2016; Pyburn *et al.*, 2015; Ragasa *et al.*, 2013).



**Figure 2.2: Distribution of employment categories in agribusiness by gender**

**Source: Author's analysis of IHS4 data**

#### **2.8.4 Determinants of urban and peri-urban youth employment in agribusiness**

The results of the bivariate logit model on the determinants of youth employment in agribusiness are presented in Table 2.4. The Log likelihood of -5599.42.67 and significance level of 1.0 % indicate that the model has a good fit to the data. The results in Table 2.4 show that an additional increase in age increased the likelihood of youth being

employed in agribusiness ( $p < 0.01$ ). Suggesting that when youth get older they have more responsibilities that pushes youth to seek for employment. From the results, being female lowers likelihood of being employed in agribusiness ( $p < 0.01$ ) despite most females being in agribusiness. This could be attributed to the fact that there are more females than males and because of lack of opportunities and increase in household responsibilities that limit females to be employed in agribusiness. It was revealed during focus group discussion that females face socio-cultural factors such as childcare responsibilities, lack of opportunities among other things which affects their employability. This confirms the study by Benson *et al.* (2019) that women experience periods of not being economically active more generally than men.

Being married and widow/widower reduced the likelihood of youth being employed in agribusiness and these results were statistically significant at  $p < 0.01$  and  $p < 0.05$  respectively (Table 2.4). This might be because of marital obligations that could sometimes limit youth from seeking employment in agribusiness as well as lack opportunities and resources to engage in agribusiness. It was revealed during focus group discussions that married female youth engage less than males in agribusiness because of their husbands' jealousy in thinking that they will indulge in immoral conduct with male counterparts.



**Table 2.4: Bivariate logit analysis of determinants of youth employment in agribusiness (n=9680)**

<b>Variables</b>	<b>Employed in Agribusiness</b>	<b>Unemployed</b>
Age	0.004*** (0.001)	-0.004*** (0.001)
Sex	-0.018* (0.011)	0.018* (0.011)
Relation to HH head	-0.004 (0.003)	0.004 (0.003)
Married	-0.121*** (0.017)	0.121*** (0.017)
Separated/divorced	-0.033 (0.026)	0.033 (0.026)
Widowed	-0.131** (0.051)	0.131** (0.051)
Religion	-0.052 (0.035)	0.052 (0.035)
Household size	-0.024*** (0.003)	0.024*** (0.003)
Dependency ratio	-0.061*** (0.009)	0.061*** (0.009)
Primary education	-0.035** (0.015)	-0.161*** (0.031)
Secondary education	-0.100*** (0.013)	-0.125*** (0.032)
Tertiary education	-0.161*** (0.031)	-0.060** (0.030)
Access to credit	0.026** (0.011)	-0.023** (0.011)
Access to extension services	0.245*** (0.011)	-0.245*** (0.011)
Landholding owned (ha)	0.037 (0.027)	-0.037 (0.027)
Wealth	-0.025*** (0.002)	0.025*** (0.002)
Idiosyncratic shock	-0.016 (0.010)	0.016 (0.010)
Livestock ownership (tlu)	0.044*** (0.009)	-0.044*** (0.009)
Distance to road (km)	3.360 (0.0002)	-3.360 (0.0002)
Distance to market (km)	-0.002*** (0.001)	0.002*** (0.001)
Observations	9,058	
Pseudo R2	0.1005	
Prob > Chi2	0.0000	

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Log likelihood	-5599.4267
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**Note: Standard errors are in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  denotes significant levels.**

**Source: Authors' estimation based on IHS4 data.**

A unit increase in household size decreased the odds of youth being employed in agribusiness ( $p < 0.01$ ) compared to being unemployed (Table 2.4). Contrary to expectations, this is attributed to the fact that majority of youth have relatively small family size which is understandable because they are still youth. This confirms studies by Obisesan (2019); Broeck and Kilic (2019). An increase in dependency ratio decreased the odds of youth being employed in agribusiness ( $p < 0.01$ ), suggesting that having an additional number of dependants reduces the likelihood of being employed. This contradicts the findings by Broeck and Kilic (2019) that child dependency ratio is positively associated to starting employment in Malawi, Nigeria and Ethiopia.

Moreover, the results in Table 2.4 show that having primary or secondary or tertiary education reduced the likelihood of youth being employed in agribusiness significantly at  $p < 0.01$  and  $p < 0.05$  respectively. This might be because of the education system in Malawi has not focused much on agribusiness and alternatively, educated youth go for work outside agriculture mostly white collar jobs. It was revealed during focus group discussions that education in agribusiness is the second important determinant as it equips youth with skills and knowledge. Particularly participants from ACADES underscored that skills training they receive from ACADES influenced them to be in agribusiness.

However, some participants highlighted that education system is not practical. This supports the theory on human capital that education and training boost productivity through knowledge and skills which increases employability (Becker, 1993). Similarly, studies have found that education is a determinant of youth involvement in agriculture (Ahaibwe *et al.*, 2013; Maiga *et al.*, 2015).

An additional increase in access to credit increased the odds of being employed in agribusiness compared to unemployed ( $p < 0.05$ ). This could be because having credit enables youth to acquire needed farm inputs that provides youth with an opportunity to seek for employment in agribusiness. Similarly, focus group discussions revealed that access to credit helped youth acquire the needed improved inputs such as seed, fertilizer and irrigation pumps as well as buy or rent more land for production. This is consistent with the findings done by Obisesan (2019) that access to credit influence youth participation in agriculture. This suggest that availability of credit could determine the extent of agribusiness capacity thus, an opportunity to seek for employment in agribusiness.

Access to extension services similarly increased the likelihood of being employed in agribusiness ( $p < 0.01$ ) because it provides essential education needed in agribusiness activity. It was also revealed during focus group discussions particularly by ACADES participants, who highlighted that ACADES' extension services has influenced youth to be employed in agribusiness, because of the technical knowledge and skills gained in agribusiness. Suggesting the need for provision of extension services by government and development partners to youth as it offers an opportunity to seek for employment in

agribusiness. This is consistent with Lindsjo *et al.* (2020) who reported that agricultural extension services are important for agricultural intensification and engagement.

Livestock ownership increased the likelihood of being employed in agribusiness ( $p < 0.01$ ). This is attributed to the fact that youth are able to sell their livestock or livestock products from which they can earn cash to start an agribusiness enterprise. Suggesting that owning livestock is an important determinant as it provides youth with the opportunity to be employed in agribusiness being as a starter pack. These study findings are consistent with those reported by Maiga *et al.* (2015) that livestock ownership is a determinant of youth involvement in agriculture.

Study results show that wealth lowers the likelihood of youth being employed in agribusiness compared to unemployed ( $p < 0.01$ ), this could be because most of youth have little wealth as captured in Table 1.0. Suggesting a necessity to seek for employment rather than an opportunity. All the same, these study findings were also consistent with that reported by Broeck and Kilic (2019).

A unit increase in distance to the market decreases the odds of youth being employed in agribusiness compared to unemployed significantly at  $p < 0.01$ . Suggesting that long distance to the market make it difficult for youth to buy inputs and sell their products. It was further revealed during FGDs that access to market enables youth to sell their products, thus an important factor in determining youth employment in agribusiness. This

is in line with what was reported by Mueller *et al.* (2019) that market development is important to ensure youth participate in agricultural transformation.

However, no evidence of any statistically significant association was found between land ownership and youth being employed in agribusiness. This could be because youth own small farm lands which does not allow for meaningful investment and returns. It was also revealed during FGDs that most of youth do not own land as most of the land is privately owned and owned by their parents who utilize the land. Participants also highlighted that youth end-up renting-in a small piece of land as a group which is mostly not adequate to produce large quantities of produce. These study findings were consistent with that noted by Lingsjo *et al.* (2020) that youth have difficulties in accessing land which inhibits them to be productive and affect their livelihood. However, Yami *et al.* (2019) argued that land reforms in Malawi have increased access to land among youth.

#### **2.8.5 Determinants into specific agribusiness employment categories**

Multinomial logit results are presented in Table 2.5. The study results show that age, having education, access to credit, access to extension services and livestock ownership positively and significantly influenced youth to seek for employment in farming (family or ganyu); farming and non-agricultural business; off-farm agricultural activity; farming and off-farm non-agricultural activity (Table 2.5). Whereas, sex of youth, being married and widow/widower, large household size, and high dependency ratio. As well as little wealth and long distance to the market negatively and significantly influenced youth to seek for employment in farming; in a mix of farming and unpaid apprenticeship; off-farm

agricultural activity. As well as in a mix of farming and off-farm non-agricultural activity; mix of farming and non-agricultural business and in a mix of farming and off-farm agricultural activity (Table 2.5).

The study results show that being a year older increases the relative odds of youth being employed in farming (family or ganyu) at  $p < 0.05$  significant level but also in a mix of farming and non-agricultural business and in off-farm agricultural activity at  $p < 0.01$  significant level respectively. This is because when youth get older they have more responsibilities such as caring for the home that pushes them seek for employment. Suggesting necessity to be employed. From the study results, being female decreased the likelihood of youth being employed in farming ( $p < 0.01$ ). This might be because females are involved in time-consuming child rearing and household tasks that limit their employment. This reconciles with findings by Benson *et al.* (2019) that female are more likely to be economically inactive than males. However, the study findings contradict findings reported by Broeck and Kilic (2019) that females are more likely to enter farm employment in Malawi.

**Table 2 5: Multinomial analysis on determinants into specific agribusiness categories  
(n=9680)**

<b>Variables</b>	<b>Farming (family or ganyu)</b>	<b>Farming and non- agricultural business</b>	<b>Farming and Off- farm agri activity</b>	<b>Farming and Unpaid Apprenticeship</b>	<b>Off-farm agricultural activity</b>	<b>Farming and Off- farm non- agri activity</b>
Age	0.013* (0.007)	0.026* (0.014)	0.044 (0.051)	0.072 (0.065)	0.075*** (0.024)	0.023 (0.018)
Sex	-0.118** (0.053)	0.144 (0.112)	-0.599 (0.435)	-1.360** (0.691)	0.122 (0.213)	-0.003 (0.145)
Household head	-0.021 (0.016)	-0.041 (0.035)	0.021 (0.128)	0.179* (0.100)	0.085** (0.041)	-0.009 (0.038)
Married	-0.578*** (0.090)	-0.468** (0.186)	0.554 (0.723)	0.113 (0.924)	-0.498* (0.297)	-0.308 (0.233)
Separated/divorced	-0.130 (0.127)	-0.239 (0.275)	-14.53 (1,673)	-12.95 (914.3)	0.0449 (0.479)	-0.099 (0.381)
Widow/widower	-0.576** (0.268)	-0.538 (0.559)	-14.82 (4,282)	-13.50 (1,993)	-14.75 (1,331)	-0.298 (0.759)
Religion	-0.257 (0.170)	-0.207 (0.364)	15.44 (2,937)	14.47 (2,503)	-0.748 (0.639)	0.474 (0.727)
Primary education	-0.251*** (0.072)	0.228* (0.137)	-1.085 (0.764)	0.337 (0.617)	0.674** (0.327)	0.207 (0.207)
Secondary education	-0.599*** (0.067)	-0.279** (0.140)	-0.614 (0.495)	-1.589* (0.853)	0.681** (0.276)	0.258 (0.176)
Tertiary education	-1.137*** (0.201)	-1.451*** (0.530)	-0.994 (1.128)	-16.20 (2,803)	0.806** (0.407)	0.260 (0.335)
Household size	-0.086*** (0.015)	-0.129*** (0.033)	-0.115 (0.146)	0.042 (0.166)	-0.400*** (0.061)	-0.192*** (0.042)
Dependency ratio	-0.296*** (0.043)	-0.378*** (0.10)	-0.878* (0.498)	-2.257*** (0.839)	-0.689*** (0.236)	-0.583*** (0.144)

Access to credit	0.081 (0.053)	0.344*** (0.107)	0.231 (0.439)	0.450 (0.569)	-0.259 (0.238)	0.378*** (0.142)
Access to extension service	1.183*** (0.053)	1.188*** (0.118)	0.533 (0.433)	0.673 (0.573)	-0.658** (0.264)	0.931*** (0.147)
Land ownership (ha)	0.229 (0.167)	-1.069 (0.699)	-14.56 (3,352)	-13.99 (3,201)	-13.32 (1,613)	-14.56 (1,190)
Livestock ownership (tlu)	0.244*** (0.042)	0.207** (0.086)	0.298 (0.206)	0.322 (0.246)	-0.950 (1.012)	0.120 (0.113)
Wealth	-0.165*** (0.016)	-0.056* (0.031)	-0.071 (0.127)	-0.209 (0.189)	0.050 (0.044)	0.028 (0.030)
Idiosyncratic shock	-0.165*** (0.050)	0.367*** (0.11)	-0.582 (0.427)	-0.301 (0.572)	0.269 (0.204)	0.0822 (0.139)
Distance to road (km)	0.001 (0.001)	-0.003 (0.003)	-0.095* (0.0547)	-0.074 (0.066)	0.002 (0.002)	-0.051*** (0.014)
Distance to market (km)	-0.008*** (0.002)	-0.014** (0.006)	-0.012 (0.022)	0.027 (0.022)	-0.011 (0.010)	-0.006 (0.007)
Constant	0.311 (0.226)	-2.372*** (0.480)	-19.68 (2,937)	-20.70 (2,503)	-2.88*** (0.855)	-3.019*** (0.832)
Log likelihood	-8106.55					
R <sup>2</sup>	0.1176					

**Note: The base category is unemployed. For categorical explanatory variables, the base case for marital status is “never married”; for education is “no formal education”. Standard errors are in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 denotes significant levels.**

**Source: Authors’ estimation based on IHS4 data**



All the same, being married decreases the relative odds of youth being employed in farming significantly at  $p < 0.01$  and in a mix of farming and non-agricultural business relative to being unemployed at  $p < 0.05$  significant level. This could be due to the fact that married individuals have marital obligations that could limit their employment. Similarly, being a widow/widower decreased the relative odds of being employed in farming significantly at  $p < 0.05$ . Suggesting that widow/widower have little support to have access to resources that lower their likelihood of being employed in farming.

Household size has a negative and significant association at  $p < 0.01$  significant level with youth being employed in farming; in a mix of farming and non-agricultural business; in off-farm agricultural activity; as well as in a mix of farming and off-farm non-agricultural activity at  $p < 0.01$  respectively. This is suggesting that household size lowers the likelihood of being employed, might be because of youth have relatively smaller household size as seen in Table 1.0. This confirms studies done by Obisesan (2019) and Broeck and Kilic (2019) who found that who found that household size correlates with lower likelihood to start employment. Dependency ratio significantly reduced the likelihood of youth being employed in almost all agribusiness categories at  $p < 0.01$  significant level (Table 2.5). This could be because most of youth have low number of dependents as seen in Table 1.0. This contradicts findings that dependency ratio has positive association to employment in Malawi, Ethiopia and Nigeria (Broeck and Kilic, 2019).

With regards to education, study results show that having primary, secondary and tertiary education decreased the relative odds of youth being employed in farming ( at  $p < 0.01$ ) but also the likelihood of youth being employed in farming and non-agricultural business also decreased with having secondary and tertiary education relative to unemployed (Table 2.5). This substantiate findings made by Broeck and Kilic (2019) that education does not influence on stability of employment. Suggesting that the more educated a youth is the less likely to be working in farming as well as in a mix of farming and non-agricultural business. On the other hand, having primary, secondary and tertiary education increased the relative odds of youth being employed in off-farm agricultural activity relative to unemployed (at  $p < 0.05$ ). This is in line with the Theory of Human Capital (Becker, 1975). Similarly, Schmidt and Woldeyes (2019) found that education improves individuals' access to off-farm jobs. Suggesting that the more educated a youth is the more likely to be employed in off-farm agricultural activities as it gives added advantage through the skills and knowledge acquired.

An increase in access to credit increased the relative odds of youth being employed in a mix of farming and non-agricultural business at  $p < 0.01$  significant level as well as in a mix of farming and off-farm non-agricultural activity (at  $p < 0.05$ ) relative to unemployed. This is because having credit enables youth to acquire inputs and resources for agricultural production and development thus, influence youth to be in a mix of farming and non-agricultural business as well as in a mix of farming and off-farm non-agricultural activity. This support findings by Obisesan (2019) that access to credit influence youth participation in agriculture.

An increase in access to extension services increased the relative odds of youth being employed in family farm ( $p < 0.01$ ) but also in a mix of farming and non-agriculture business ( $p < 0.01$ ) as well as in farm and off-farm agricultural activity at  $p < 0.01$  significant level relative to unemployed. Suggesting that the agricultural practices and skills youth receive provides an opportunity to seek for employment. However, increase in access to extension services decreased the relative odds of youth being employed in off-farm agricultural activity relative to unemployed significantly at  $p < 0.05$ . This suggest that youth who receive agricultural extension services are less likely to be employed in off-farm agricultural activity. This could be because working off-farm requires less transfer of agricultural practices.

An additional unit increase in number of livestock ownership increased the likelihood of youth being employed in farming at  $p < 0.01$  significant level but also in a mix of farming and non-agricultural business at  $p < 0.05$  significant level. Suggesting that youth are able to sell the livestock or livestock products from which could allow them to start an agribusiness enterprise. This is consistent with Maiga *et al.* (2015) who reported that livestock ownership is a determinant of youth involvement in agriculture.

Experiencing idiosyncratic shock reduced the odds of youth being employed farming ( $p < 0.01$ ). It suggests that youth could be busy taking care of sick family member that keeps them out of the farming. However, experiencing idiosyncratic shock increased the odds of being employed in a mix of farming and non-agricultural business relative to unemployed (at  $p < 0.05$ ). Suggesting that youth want to earn extra income to support the

family. This agrees with the findings of Broeck and Kilic (2019) that shock particularly death or illness of a household member pushes people to enter employment.

Results also show that an increase in wealth reduced the likelihood of youth being employed in farming significantly at  $p < 0.01$ . This is because most youth have limited asset ownership. The study findings confirm study by Broeck and Kilic (2019) that wealth is negatively associated with starting employment in Malawi, suggesting a necessity to seek employment rather than an opportunity.

Distance to the market was found negative and significantly ( $p < 0.01$ ) associated with youth being employed in farming but also in a mix of farming and non-agricultural business ( $p < 0.05$ ). Suggesting that long distances to market reduces the likelihood of being in farming as well as in a mix of farming and non-agricultural business. This supports studies that found that investing in infrastructure and market expansion are important to ensuring that youth participant in the process of agricultural transformation (Mueller *et al.*, 2019).

## **2.8.6 Opportunities and challenges experienced by youth in agricultural-related enterprises**

### **2.8.6.1 Opportunities in agricultural-related enterprises**

The study revealed that agribusiness value chain and value addition provides youth with opportunities to find employment. Majority of the FGDs participants underscored that opportunities in agribusiness are there in food production, processing and marketing

services in which youth can engage in. This suggest that agribusiness has prospects for youth to be employed. This substantiate findings reported by Alemu (2016) that agribusiness has great potential in diversifying employment for youth by improving their livelihoods and income sources. One government official pointed out that:

*“Agribusiness is a hot issue and has potential to provide opportunities for youth. However, agribusiness sector needs a structure that is creative and inclusive of youth through technology driven, loan acquisition and conducive policy environment as these will excite youth to get into agribusiness and be able to experience the full agribusiness opportunities”.* (Key informant, Ministry of Labour, 23<sup>rd</sup> November 2019).

On the other hand, it was revealed during focus group discussion that the opportunities in agribusiness for youth are still few and not yet realized because of the lack of government investment in the sector and in youth. Discouraging youth to consider employment in agribusiness. It implies that adequate support and investment by government and development partners is needed in the agribusiness sector to create more opportunities for youth. Similarly, Brooks *et al.* (2013) reported that there are still unrecognized opportunities on Africa’s farm by most young people.

#### **2.8.6.2 Challenges in agricultural-related enterprises**

Beyond the well-known challenges in agribusiness, the results from qualitative data revealed that major challenges experienced by youth were lack of access to credit, improved farm inputs (seed, fertilizer, farm machinery), lack of education (training) in

agribusiness, extension services, access to markets, potential land for production, poor weather conditions and limited youth agribusiness programs (Table 2.6). The study findings revealed that youth were unable to access credit facilities due to lack of collateral, this hinders agribusiness activities as a results affect engagement in agribusiness. One government official said that:

*“Youth are regarded as risky clients due to lack of collateral and viewed as not serious. Credit facilities need to view youth as potential clients and provide flexible loans so as to cater for these age group in order for them to engage in agribusiness.”* (Key informant, Ministry of Youth, 18<sup>th</sup> November, 2019).

**Table 2.6: Challenges experienced by youth in agricultural-related enterprises**

<b>Challenges faced by youth</b>	<b>No. of times preferred</b>	<b>Ranks</b>
Lack of access to credit	12	1
Limited access to improved farm inputs	12	1
Inadequate education (training) in agribusiness	11	2
Lack of potential land for production	10	3
Lack of access to markets	10	3
Limited access to extension services	8	4
Inadequate youth agribusiness programs	6	5

Lack of access to improved farm inputs such as seeds, fertilizer and farm equipment was also a major challenge youth face as well as of storage facilities to keep their produce. The study findings support studies by Ahaibwe *et al.* (2013); Muthomi (2017); Schmidt and Woldeyes (2019) that youth are less likely to use improved inputs such as seed, fertilizer, and agricultural machinery. The study findings also revealed that youth were lacking of agribusiness education (trainings). Majority of youth have little know-how in agribusiness activities and that the education curriculum does not focus much on agribusiness. Attesting to that, one government official pointed out that;

*“Education is not practical and the education system is creating robots. It does not embrace creativity which affects the opportunity for youth to grow”.* (Key informant, Ministry of Youth, 03<sup>rd</sup> December 2019).

This supports studies that youth have limited agricultural skills and education on agribusiness (Lyocks *et al.*, 2014; Muthomi, 2017). Similarly, Betherman and Khan (2015) found that skills development interventions pay less attention in supporting youth employment in agriculture and micro-enterprises. The study findings in Table 2.6 also showed that access to markets is limited that means hindering youth from selling their produce or product. Participants pointed out that lack of markets with unstable market prices leads to the exploitation of unscrupulous traders (vendors) who buy products from the youth by setting their own prices. This interference deters youth agricultural activities. The findings suggest further that no stable supply chain with no fixed market prices impedes youth in agribusiness. This is consistent with Muthomi (2017) who reported that lack of market is a challenge for youth engaged in agribusiness.

Lack of access to land is another major challenge youth face in agribusiness. Participants revealed that potential land for production is scarce with much of the land being privately owned or owned by parents, who utilize the land. Suggesting that limited land access limits semi-commercial/commercial production. The findings confirm studies by Lindsjo *et al.* (2020) that youth in Malawi have limited access to credit that hinder agricultural intensification. Similarly, the study findings were consistent with studies done by Brooks *et al.* (2013); Ahaibwe, Mbowe and Lwanga (2013); Kimaro *et al.* (2015) and Schmidt and Woldeyes (2019).

Moreover, the findings as shown in Table 4.0 illustrated that access to extension is inadequate with majority of the participants accentuate that extension services are virtually non-existence to support youth in agribusiness. Suggesting that failure of



extension services system in supporting youth in Malawi, this could be due to lack of government investment and few extension workers. This study findings supports findings made by Schmidt and Woldeyes (2019) that youth have less access to extension services. Similarly, Lindsjo *et al.* (2020) found that youth in Malawi have limited access to extension services that hinder agricultural intensification.

It was further revealed that youth agribusiness programs are scarce with the few existing programs not fully addressing the bottlenecks related to access to markets, farm input, land and credit. These study results tend to suggest that inadequate youth agribusiness programs affect youth participation in agribusiness as they do not gain much exposure. This concurs with Lyocks *et al.* (2014) and Ismail (2018) that youth programs are inadequate. Overall, the findings suggest that adequate support and investment in youth in agribusiness by government and development partners could help youth deal with the challenges they face and enable successful operation of agricultural-related enterprises and promote youth employment.

## **2.9 Conclusion and Recommendations**

The study concludes that age of youth, sex, and marital status, education level of youth, household size and dependency ratio had an influence on youth employment in agribusiness. Furthermore, youth employment in agribusiness is influenced by access to credit, agricultural extension services, wealth and livestock ownership as well as, experiencing idiosyncratic shock and distance to the market. The study suggest that employment in agribusiness for some youth might be out of necessity to seek work due to lack of jobs, lack of education or need to support family with addition income among

other things, for some youth, is a retort to having education and various business and wage opportunities among other things.

The study recommends that government and development partners should work towards facilitating increase in access to credit, agricultural extension services, and improve education in agribusiness. It is also recommended that that government should increase access to land among youth, improve market access and improved farm inputs among youth so as to promote youth employment in agribusiness.

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### CHAPTER THREE

#### 3.0 CONTRIBUTION OF YOUTH EMPLOYMENT IN AGRIBUSINESS TO THEIR SOCIO-ECONOMIC WELL-BEING IN URBAN AND PERI-URBAN AREAS OF MALAWI

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### 3.1 Abstract

The study analysed the contribution of youth employment in agribusiness to their socio-economic well-being in urban and peri-urban areas of Malawi. Cross-sectional research design was adopted for the study. This study used quantitative data obtained from the Fourth Integrated Household Survey (IHS4) for Malawi with a sample of 9680 youth using stratified two-stage sampling technique. Qualitative data was generated from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with a sample of 135 participants. Regression analysis was done with the aid of STATA 14. Qualitative data was analysed by thematic analysis. The study found that employment in farming had a negative and statistically significant relationship ( $p < 0.01$ ) with per capita consumption expenditure (well-being). Whereas, youth employment in a mix of farming and non-agricultural business as well as employment in off-farm agricultural activity had positive and statistically significant relationship ( $p < 0.01$ ) with per capita consumption expenditure. Based on the findings, the study concludes that youth employment in agribusiness especially those employed in farming but also in a mix of farming and non-agricultural business. As well as off-farm agricultural activity has effects on well-being of youth. Therefore, policy pathways towards supporting youth in agribusiness through access to credit, land, markets and education in agribusiness should be put in place by government. So as to improve the livelihoods and well-being of youth.

**Keywords:** Agribusiness, Consumption Expenditure, Subjective Well-being, Youth Employment

### 3.2 Introduction

Agricultural sector's influence on livelihood and economic growth remains crucial (Yeboah and Jayne, 2017). Many African youth are employed in agriculture and the sector plays a key role in the economy and livelihoods of majority of people in the developing countries. Thus, engaging youth in agriculture has been increasingly recognized globally to reduce youth unemployment (FAO, 2019). Agriculture remains the source of livelihood for many youth. In Malawi, agriculture is seemingly the default employment category of all including those in urban areas (Benson *et al.*, 2019).

Agriculture in Malawi accounts for 64.1 percent of employment compared to other sectors and 58.4 percent of youth employment indicating the need for more investment in the sector (National Statistics Office [NSO], 2014). Most households depend on agriculture for source of livelihoods (Kamchacha, 2012). According to Brooks *et al.* (2013) about half of Africans work in agricultural sector which contributes a quarter of the continent's overall GDP however, most of the employment in the sector remains vulnerable and involves low pay. Proctor and Lucchesi (2012) indicated that development of agricultural sector in developing and emerging economy worlds will have major impacts on household welfare and livelihoods.

Agribusiness sector offers employment opportunities for youth in Africa. According to Proctor and Lucchesi (2012) agriculture and agrifood sectors offer new opportunities for job creation. Agribusiness presents great employment opportunities in Sub-Saharan Africa (SSA) (Koirra, 2014). So much so that interventions have already been undertaken in

Malawi to enhance agricultural investments and empower youth (FAO, 2019). Literature has highlighted the benefits of agribusiness and agricultural sector to livelihoods of youth. For example, Alemu (2016) found that agribusiness has great potential in diversifying employment for youth by improving their livelihoods and income sources. But, youth still face challenges of lack of access to improved agricultural technology, loose connection in value chains, poor market opportunities and capacity development. In this study, agribusiness is defined as all operations involved in farming, manufacturing, processing and distribution, marketing, wholesale and retail sales (Van Fleet, 2016).

According to Benfica *et al.* (2018), agriculture had a positive effect on poverty reduction in urban areas. The study concluded that higher levels of income growth and poverty reduction is linked to diversified activity or moving from agriculture to non-agriculture. In addition, Sucha and Oprsal (2016) found positive influence of urban agriculture on household well-being in Zambia and that agriculture-based activities help sustain livelihoods of farmers in terms of food intake and income generation.

However, youth still face numerous challenges in agribusiness which leads to little returns or little improvements to their livelihoods. According to the 2014 Global Youth Wellbeing Index report, majority of the world's youth are experiencing lower levels of well-being and even when youth are doing relatively well, they still face specific challenges and limitations (Goldin *et al.*, 2014). Similarly, Lindsjo *et al.* (2020) found that youth in Malawi have limited access to land, extension services and credit that hinder agricultural intensification and affect their livelihoods. FAO (2019) reported that unfavourable policy, limited access to land, markets and financial services with absence of youth-led or youth-

sensitive organization affect growth of farming and processing activities of youth. According to OECD (2018) youth in Malawi face numerous and interconnected challenges and thus youth suffer simultaneous well-being deprivations. Benfica *et al.* (2018) reported that in urban areas consumption expenditure dropped and poverty levels increased with central region performing worse than other regions in Malawi.

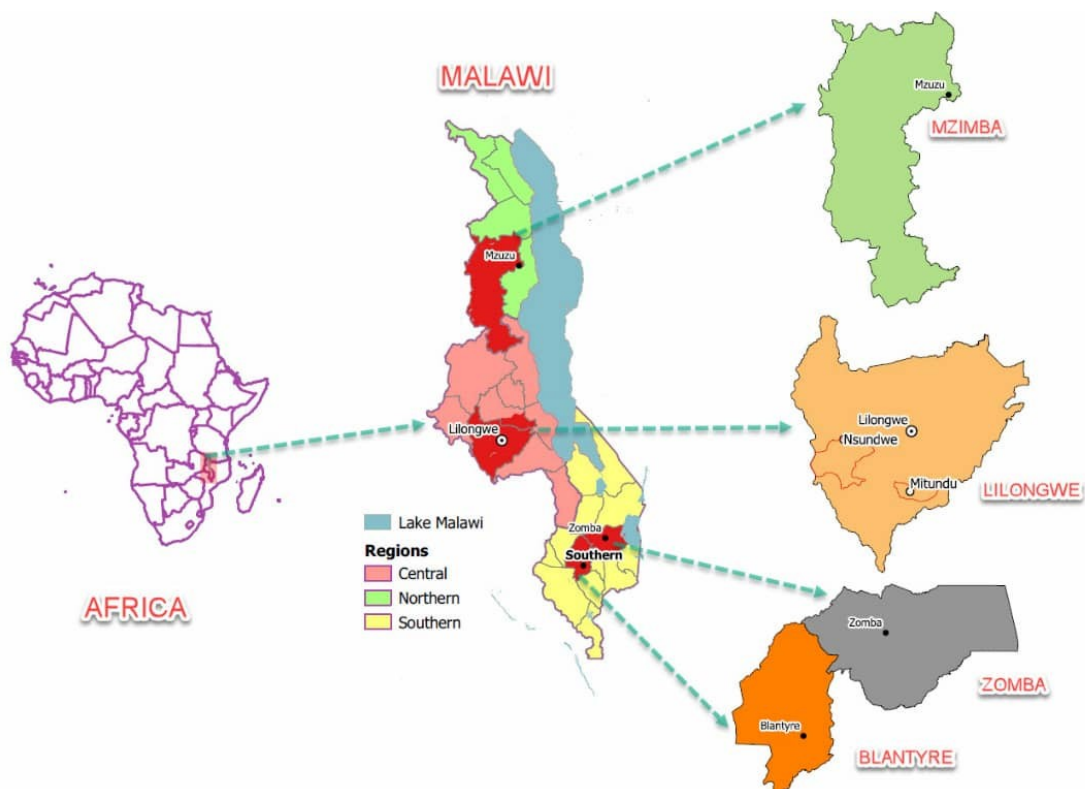
While other studies (Alemu, 2016; Sucha and Oprsal, 2016) have explored the relationship between employment in agriculture and well-being of youth, little is known about the relationship between youth employment in agribusiness and socio-economic well-being of youth in urban and peri-urban areas of Malawi. Therefore, the paper examined how youth employment in agribusiness affects well-being of youth in urban and peri-urban areas of Malawi.

This paper uses both subjective well-being (how people experience and evaluate their lives and specific domains and activities in their lives) and objective well-being (material resources, economic and social attributes) (Alatarseva and Barysheva, 2015). Associated Centre for Agro-Based Development and Entrepreneurship Support (ACADES) was used as a case study in this research as it has grown to be the largest network of youth in agribusiness in Malawi with over 3000 members. It works with farmers and farmer groups in commercializing smallholder farming enterprises through provision of loans, skills training and profitable markets. ACADES provides the much needed evidence as it promotes employment through investment in agribusiness by supporting youth in agribusiness.

### 3.3 Research Methodology

### 3.4 Description of the Study Area

The study was conducted in urban and peri-urban areas of Malawi namely: Lilongwe, Blantyre, Mzuzu and Zomba. Mzuzu is the main urban area in the Northern Region and found at (11.4390° S; 34.0084° E); Zomba and Blantyre are main urban areas found in the Southern Region and are found at (15.3766° S; 35.3357° E) and (15.4705° S; 35.0030° E) respectively and Lilongwe is in Central Region and found at (13.9626° S; 33.7741° E). Lilongwe was further sampled as a case study involving two areas namely Mitundu and Msundwe. Lilongwe was selected as it is the largest urban area situated at the centre of a large agricultural area and where most ACADES' (Associated Centre for Agro-Based Development and Entrepreneurship Support) initiatives are launched and promoted.



**Figure 3.1: Map showing the four urban and peri-urban areas in Malawi**

**Source: Author with help from Clyde Kalima**

### **3.5 Research Design**

The study employed a cross-sectional research design which involved data collection at one point in time (Neuman, 2014).

### **3.6 Sampling Procedure and Data Collection**

A stratified two-stage sampling design was used to sample 9680 youths with an age category of 15-34 years for quantitative analysis. Quantitative data used in the study was obtained from nationally representative Fourth Integrated Household Survey (IHS4) data for Malawi. Purposive sampling technique was used to sample 135 participants for qualitative analysis in Lilongwe. Qualitative data was collected using key informant interviews and focus group discussions. The key informant interviews involved 17 participants and 12 focus group discussions with a range of 7 to 10 participants. The focus group discussions were conducted with youth who engage in agribusiness and some of them were involved with the Associated Centre for Agro-Based Development and Entrepreneurship Support (ACADES). A combination of quantitative and qualitative analysis was adopted to address the research objectives.

### **3.7 Data Analysis**

STATA 14 was used for quantitative analysis. Quantitative data was analysed using Descriptive Statistics, Chi-square test was used to measure association between youth employment in agribusiness and self-reported subjective well-being indicators (income,

food consumption, housing and health) in the analysis. The responses on well-being were divided into three categories: less adequate (low), adequate (medium) and more adequate (high).

Ordinary Least Square (OLS) regression was used to measure relationship between youth employment in agribusiness on their well-being. Per capita consumption expenditure is used as an indicator of well-being in the analysis due to the difficult measurement of income using household surveys. According to Gollin *et al.* (2014) agricultural income is difficult to measure because of many workers are employed informally. It is often underestimated in household survey because of few written record exist for household businesses and self-employment activities as well as individuals and households tend to under-report incomes for which they are not paying tax (McKay, 2000). Despite income being an important measure of welfare, per capita expenditure can best measure of welfare (World Bank and NSO, 2018; Deaton and Zaidi, 2002). The OLS equation is specified as follows:

$$\text{Log } Y_{it} = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4} + \dots + \beta_k X_{ik} + \varepsilon_i \dots \dots \dots (1)$$

**Where:**

Y = Ln Per capita consumption expenditure (well-being)

Ln = Natural logarithm function

$\beta_0$  = Constant

$\beta_1 - \beta_k$  = Regression coefficients (odds ratios)

$X_1$  = Employed in Farming (family or ganyu (casual labor)) (1 Yes, 0 No)

$X_2$  = Employed in Farming and non-agricultural business (1 Yes, 0 No)

$X_3$  = Employed in Farming and off-farm agricultural activity (1 Yes, 0 No)

$X_4$  = Employed in Farming and unpaid apprenticeship (1 Yes, 0 No)

$X_5$  = Employed in Farming and off-farm non-agricultural activity (1 Yes, 0 No)

$X_6$  = Employed in Off-farm agricultural activity (1 Yes, 0 No)

$X_7$  = Employed in Off-farm agricultural activity and non-agricultural business (1 Yes, 0 No)

$X_8$  = Age measured in years

$X_9$  = Sex (Female 1, 0 Male)

$X_{10}$  = Education level (none 1, primary 2, secondary 3 and tertiary 4)

$X_{11}$  = Household size (total number of people in a household)

$X_{12}$  = Land ownership (land size in hectares)

$X_{13}$  = Livestock ownership (total number of livestock)

$X_{14}$  = Access to credit (1 Yes, 0 No)

$X_{15}$  = Distance to market (Kms)

$X_{16}$  = Location (0 urban, 1 peri-urban)

$\epsilon_i$  = Random error term which is appended to capture any measurement error



The explanation of the variables is presented in Appendix 4.2. Per capita consumption expenditure is determined by summing up household expenditure on food and non-food covering a period of one year (NSO, 2014). Qualitative data was analysed using deductive coding approach (thematic approach).

### **3.8 Results and Discussion**

#### **3.8.1 Socio-economic and demographic characteristics of youth**

The results in Table 3.1 show that youth had an average age of 22.3 years indicating that most youth were within economically active age with majority of them employed in agribusiness being females compared to males (Table 3.1). The study results were consistent with findings made by Broeck and Kilic (2019) and Benson *et al.* (2019) that females tend to be in agriculture more than males. The average household size of youth was five family members. Over half of youth employed in agribusiness had no formal education. Implying that youth are less educated. Less than half of youth employed in agribusiness had access to credit with an average land size of 0.04 hectares. Indicating that most of youth were small-scale farmers. The study findings confirms the study by Asfaw and Maggio (2018) who found small-scale farmers over 70% had less than one hectare to farm.

The study results in Table 3.1 further show that youth employed in agribusiness tend to have more livestock. Suggesting that having more livestock could enable youth to venture in agribusiness as they could sell the livestock or livestock products to earn a capital to invest. This study findings substantiate previous studies that found youth who engage in agriculture tend to have livestock (Maiga *et al.*, 2015). The results also show that most of

youth reside in urban areas with less than half being employed in agribusiness compared to peri-urban areas. The results show that youth employed in agribusiness had per capita consumption expenditure lower than unemployed youth with an average of MWK 213,362.4 (US\$ 290.3). This could be due to agricultural sector characterized with low earnings/wages thus low expenditure. This is in line with Brooks *et al.* (2013) who reported that employment in agricultural sector remains vulnerable and involves low pay.

**Table 3.1: Socio-economic characteristics of youth**

Variable	Employed in Agribusiness  n = 4309	Unemployed  n= 5371	Total Sample  n= 9680
Age	22.7 (6.16)	23.7 (6.24)	23.5 (6.18)
<i>Sex (%)</i>			
Male	19.5	22.1	41.5
Female	23.5	35.1	58.5
<i>Marital Status (%)</i>			
Household size	5.2 (1.93)	5.5 (1.91)	5.4 (1.93)
Dependency ratio	0.9 (0.71)	1.0 (0.73)	1.1 (0.71)
<i>Education Level (%)</i>			
No Education	61.7	46.2	53.0
Primary level	14.8	16.1	15.5
Secondary level	21.5	33.0	27.9
Tertiary level	2.0	4.6	3.5
Credit (%)	33.2	30.9	31.9
Land ownership (ha)	0.04 (0.22)	0.02 (0.15)	0.03 (0.18)
Livestock ownership (tlu)	0.2 (0.64)	0.1 (0.56)	0.1 (0.61)
Distance to market (km)	7.8 (10.41)	9.9 (11.49)	9.1 (11.07)

<i>Location (%)</i>			
Urban	31.4	68.6	53.7
Peri-Urban	56.7	40.3	46.3
Annual total per capita consumption expenditure (MK)	213262.4 (1567213)	296378.3 (196768.5)	259379.7 (1175431)

**Note: Standard deviations are given in parentheses; tlu = Tropical Livestock Unit; MK = Malawi kwacha.**

**Source: Authors' estimation based on IHS4 data.**

### **3.8.2 Distribution of youth by employment categories**

The results in Table 3.2 shows that more than half of the youth were unemployed (55.0%) while 45% were employed in agribusiness. This could be because of various reasons including; youth are still in school, handling household tasks, illness or disability and discouragement (believing that there are no jobs). Of the 45% of youth employed in agribusiness, 35% were employed in farming (family or casual labour). This implies that most of youth in urban and peri-urban areas are working in farming. This is consistent with Broeck and Kilic (2019) who reported that majority of youth are in agriculture. About 4.6% of youth were working in a mix of farming and non-agricultural business, while 2.5% of youth were working in a mix of farming and off-farm non-agricultural activities. This could be because some most people have two occupations to generate more income to manage family responsibilities and other costs. Only 1.2% of youth were working in off-farm agricultural activity (Table 3.2).

Moreover, 0.28% of youth were employed in a mix of farming and off-farm agricultural activities, while 0.14% were working in a mix of farming and unpaid apprenticeship. Only 0.08% of youth were employed in a mix of off-farm agricultural activity and non-agricultural business. The study findings reconciles with Benson *et al.* (2019) who found

that youth were still employed in agriculture to a large extent. Other studies also added to the discussion that majority of youth are engaged in farming with only less than 10% of youth having jobs in off-farm activities in the agri-food system (Yeboah and Jayne, 2018). Similarly, Kafle *et al.* (2019) found that high rate of youth participation in farming in Malawi and Tanzania, with increasing rates in Malawi whereas youth participation in agri-food system is not increasing much in Malawi. Suggesting that most of youth work in farms, which could be attributed to less education attainment and few jobs available making them find work in farms.

**Table 3.2: Percentage of youth according to employment categories**

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<b>Employment Categories</b>	<b>Frequency</b>	<b>Percentage</b>
Unemployed	5371	55.49
Farming (family or casual labour)	3463	35.77
Farming and off-farm agricultural activity	27	0.28
Farming and off-farm non-agricultural activity	239	2.47
Farming and non-agricultural business	441	4.56
Farming and unpaid apprenticeship	14	0.14
Off-farm agricultural activity	117	1.21
Off-farm agricultural activity and non-agricultural business	8	0.08

**Source: Authors' calculation based on IHS4 data**

### 3.8.3 Distribution of per capita consumption expenditure by sex

Results in Table 3.3 shows that majority (90.0%) of youth employed in agribusiness had low consumption expenditure less than 399 000 Malawi kwacha (MK) with majority being females indicating that youth employed in farming (family or ganyu) have low income. This could be because most of the youth are employed in farming which is characterized by low wages. This suggests that most of youth work in low productive employment, and because of lack of access to markets that results in low earnings. According to Benfica *et al.* (2018) households' capacity to generate and diversify their sources of income has the ability to improve welfare levels and more out of poverty. The study results further indicated that a few youth (1.5%) had high consumption expenditure from MK 800 000 and above. This suggests that they could be working in off-farm agricultural activities. Arslan *et al.* (2019) reported that despite farming contributing an important proportion of younger households' income, most of young people do not seem to be able to achieve high income from it because of lack of connectivity.

**Table 3.3: Percentage of youth by per capita consumption expenditure and sex  
(n=4309)**

Per capita consumption expenditure (MK)	Male (%)	Female (%)	Total (%)
Up to 399 000	91.3	91.5	90.9
400 000 – 799 000	7.1	8.0	7.5
800 000 – 1 199 000	0.9	0.7	0.8
1 200 000 – 1 399 000	0.5	0.4	0.4

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1 400 000 and Above	0.2	0.3	0.3
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**Source: Author's calculation based on IHS4 data.**

### **3.8.4 Association between youth employment in agribusiness and subjective well-being Indicators**

The results in Table 3.4 are based on self-reported subjective well-being indicators. The responses on well-being were divided into three categories: less adequate (low), adequate (medium) and more adequate (high). The chi-square test of significance was used to determine association between youth employment in agribusiness and the selected subjective well-being indicators. The study results in Table 3.4 show that youth employment across all agribusiness categories was found to significantly correlate with all subjective well-being indicators; food availability ( $X^2=292.58$ ;  $p < 0.001$ ), housing condition ( $X^2=230.99$ ;  $p < 0.001$ ), health care access ( $X^2=231.41$ ;  $p < 0.001$ ) and income ( $X^2=298.96$ ;  $p < 0.001$ ). This implies that being employed in agribusiness is more likely to have an effect on well-being of youth by improving the quality of life in their homes, through increased income, food availability, health care access and housing condition of youth.

**Table 3.4: Chi-square test of association between youth employment in agribusiness and subjective well-being indicators (n= 4309)**

Employment Categories	Food adequacy (%)			Housing condition (%)			Health access (%)			Income (%)		
	Less adequate	Just adequate	More than adequate	Less adequate	Just adequate	More than adequate	Less adequate	Just adequate	More than adequate	Less adequate	Just adequate	More than adequate
Farming (family or causal labour)	42.6	27.4	28.6	42.6	28.7	31.4	42.4	29.3	29.4	23.7	37.0	44.1
Farming and Non-agricultural business	4.4	4.8	4.9	4.1	5.4	2.3	4.7	4.6	1.7	4.5	4.2	5.1
Farming and Off-farm agric activity	0.2	0.3	0.4	0.3	0.3	0.5	0.3	0.2	1.0	0.2	0.4	0.2
Off-farm agric activity and Non-agricultural business	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1
Farming and Unpaid apprenticeship	0.2	0.1	0.2	0.1	0.1	0.3	0.1	0.2	0.0	0.1	0.3	0.0
Off-farm agric activity	0.6	1.8	3.3	0.8	1.5	2.5	0.5	1.8	3.3	1.8	1.2	0.7
Farming and off-farm non-agric activity	2.0	2.8	4.9	2.1	2.6	4.5	2.2	2.7	4.3	3.3	2.0	2.4
Pearson chi2 (14)		292.5793			230.9867			231.4076			298.9617	
P-value		0.000			0.000			0.000			0.000	

**Source: Authors' analysis based on IHS4 data**

The study findings reveal that youth employed in farming (42.6%) reported food availability and housing condition to be less adequate respectively. About 42.4% of youth employed in farming reported health care to be less adequate (Table 3.4). This suggests that well-being of youth employed farming in terms of food accessibility, health access and housing condition is low. This could be attributed to having earnings that are not sufficient enough to cater all the needs.

These study results are in contrast with findings reported by Sucha and Oprsal (2016) that urban agriculture-based activities is a promising option for sustaining their livelihoods in terms of food intake. Patel *et al.* (2015) argued that farmers who engage in small-scale agriculture were found to have higher food sufficiency but lower monthly income and well-being. However, 44.1% of youth who were employed in farming reported on income being more than adequate. Suggesting that about half of youth reported high satisfaction with their income.

With regards to youth employed in a mix of farming and non-agricultural business, 4.9% of youth reported that food availability to be more than adequate and similarly, 5.1% of youth reported income to be more than adequate. Whereas, about 5.4% of youth reported housing to be just adequate. Yet 4.7% of youth reported that health care was less than adequate. Indicating that being employed in a mix of farming and non-agricultural business improved the well-being of youth in terms of food availability and income.

In case of youth employed in a mix of farming and off-farm agricultural activity, majority reported food availability and housing to be more than adequate (Table 3.4). However, most of youth reported health care to be less adequate while income to be just adequate. Interestingly, results on a mix of off-farm agricultural activity and non-agricultural business show that equal percentage of youth (0.1%) reported food availability, housing and health care to be both less adequate and just adequate. Whereas, only 0.2% of youth reported income to be less adequate (Table 3.4). Results on farming and unpaid



apprenticeship show that equal percentage of youth (0.2%) reported food availability to be both less adequate and more than adequate while on housing 0.3% of youth reported to be more than adequate. For both health care and income most youth reported to be just adequate.

The results in Table 3.4 also show that majority of youth employed in off-farm agricultural activities reported food availability (3.3%), housing (2.5%) and health care (3.3%) to be more than adequate. However, youth employed in off-farm agricultural activities reported that income was less than adequate. This could be because working off-farm is characterized with employee benefits such as allowance, medical aid among other things that could result in youth having food, housing and health care to be more adequate. In the case of youth employed in a mix of farming and off-farm agricultural activities, most youth also reported food availability, housing and health care to be more than adequate (Table 3.4), while income to be less than adequate. The study findings suggest that the level of satisfaction of youth employed in specific agribusiness categories with the adequacy of income, food, housing and health care vary.

It was revealed during focus group discussions that employment in agribusiness provides financial security and helps to meet some basic needs, make economic choices, build financial assets as well as feel a sense of security. Focus group discussions' participants further highlighted that most of youth invest their income in meeting the needs of household members such as food, health care services and school fees among other thing as well as trying to grow both agricultural and non-agricultural businesses. Participants further highlighted that income earned from agribusiness has strengthened of their marriages for those married, improve their social status and reduced depraved activities among other things. One local leader attested that:

*“Youth employment in agribusiness has shown to contribute to welfare of youth through the earnings they acquire, which results in improved livelihoods as they*

*are able to meet their day to day basic needs. Further stating that it has also reduced mischievous behaviour among youth”. (Key informant interviews, 13<sup>th</sup> November 2019).*

Nevertheless, it was revealed during FGDs that lack of access to credit, land, agricultural inputs and access to market that make youth produce in smaller quantities. As a result, have little proceeds which lead to less access to some basic needs or services. Suggesting that challenges youth face in agribusiness make youth not to reap the full benefit of employment in agribusiness. Thus, youth experience low levels of well-being. This is in line with Goldin *et al.* (2014) who reported that majority of the world’s youth are experiencing lower levels of well-being even when youth are doing relatively well, they still face specific challenges and limitations such as inadequate education, risky work in the informal sector and underemployment. Other studies have found that urban agriculture-based activities is a promising option for sustaining their livelihoods in terms of food intake (Sucha and Oprsal, 2016).

Yet, Patel *et al.* (2015) argued that households who engage in off-farm employment have lower food sufficiency yet exhibit better well-being and higher income. But, households solely based on small-scale agriculture were found to have higher food sufficiency but lower monthly income and well-being. It is important to note that the analysis here does not account for objective measures of income, health, housing and food availability. These need to be examined further using appropriate measures.

### **3.8.5 Association between youth employment in agribusiness and per capita consumption expenditure**

The results of Ordinary Least-Square (OLS) regression analysis are presented in Table 3.5. In the study, total annual per capita consumption expenditure per adult equivalent is

used as an indicator of welfare and is log transformed to maintain normality and yield better estimation results. Robust standard errors are reported to correct for heteroscedasticity and have consistent standard errors. Multicollinearity test was run and had a mean variance inflation factor (VIF) 1.10 indicating no multicollinearity.

The results in Table 3.5 show that being employed in farming (family or casual labour) had negative significant relationship with per capita consumption expenditure ( $p < 0.01$ ). Similarly, it was revealed during focus group discussions that youth earn less income due to several challenges such as lack of markets, credit and potential land for production and also lack of government investment which affect production. This is consistent with the report by FAO (2019) that investments in agricultural sector do not automatically benefit young women and men in Malawi. Similarly, Patel *et al.* (2015) argued that farmers solely working on small-scale agriculture were found to have higher food sufficiency but lower monthly income and well-being. This could be because employment in farming is characterised with low wages with most youth lacking access to markets, credit and land among other things. Thus, decrease in per capita consumption expenditure.

Being employed in a mix of farming and non-agricultural business but also in off-farm agricultural activity had positive and significant relationship with per capita consumption expenditure ( $p < 0.01$ ). This implies that being employed in off-farm agricultural activity but also in a mix of farming and non-agricultural business is more likely to increase per capita consumption expenditure (well-being) keeping other variables constant. Yet the results were noted being consistent with that reported by Barasa *et al.* (2019) that off-farm employment improved farmer's welfare in Tanzania.

**Table 3.5: OLS analysis of the relationship between youth employment in agribusiness and Log per capita consumption expenditure (n=9680)**

<b>Variable</b>	<b>Coef</b>	<b>S.E</b>
Farming (family or ganyu)	-0.080***	(0.012)
Farming and non-agricultural business	0.070***	(0.023)
Farming and off-farm agricultural activity	0.137	(0.101)
Farming and unpaid apprenticeship	0.208	(0.136)
Farming and off-farm non-agricultural activity	-0.037	(0.113)
Off-farm agricultural activity	0.175***	(0.052)
Off-farm agricultural activity and non-agricultural business	0.061*	(0.034)
Age	-0.007***	(0.001)
Sex	0.049***	(0.011)
Primary level	0.198***	(0.015)
Secondary level	0.461***	(0.014)
Tertiary level	1.078***	(0.032)
Household size	-0.073***	(0.003)
Land ownership (ha)	-0.029	(0.041)
Livestock ownership (tlu)	0.128***	(0.011)
Access to credit	0.047***	(0.011)
Distance to market (km)	0.006	(0.005)
Location (urban)	0.448***	(0.013)
Constant	12.25***	(0.031)
Observations	9,058	
R-squared	0.432	

**Note: Per capita expenditure is adjusted for inflation and economies of scale. Robust standard errors are in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1**

**Source: Author's estimates based on IHS4 data.**

Additionally, control variables were also included in the OLS analysis. The study results in Table 3.5 revealed that sex, education level, livestock ownership, access to credit and residing in urban areas had positive significant correlation with per capita consumption expenditure ( $p < 0.01$ ). However, results show that age and household size were found to negatively correlate with per capita consumption significantly at  $p < 0.01$ , because an additional family member reduces per capital consumption expenditure due to increased burden on the youth.

The results on sex indicate that female youth are more likely to high per capita consumption expenditure than male youth. This agrees with Heshmati *et al.* (2019) who

found that female headed households had higher consumption level than male headed households in urban areas. On education level, results suggest that having primary, secondary and tertiary education increases per capita consumption expenditure compared to having no formal education (Table 3.5). This could be because better educated youth are more productive in agribusiness due to skills and knowledge gained enabling youth to seek high earning jobs and have better understanding of the market that increase income or sales. This is consistent with results reported by Lekbane and Seleka (2017). Similarly, findings by Arslan *et al.* (2019) who found that expenditure gains from education is high in semi-rural and peri-urban areas.

Livestock ownership was found to correlate with per capita consumption due to the fact that youth who own livestock could sell their livestock or livestock products to earn more income and buy food, resulting into improved well-being. This confirms the study done by Lekbane and Seleka (2017) found that having livestock can generate income from sales thus, increase in consumption. In addition, having access to credit increases per capita expenditure as it provides youth the ability to buy the required agricultural inputs needed for production. As a result, increase in production. Similarly, these study results were still consistent with Kuwornu and Owusu (2012). Residing in urban areas increases per capita consumption expenditure as they have more opportunities and access to markets. This, however, tends to contradict with the study results by Benfica *et al.* (2018) who reported that in urban areas consumption expenditure dropped and poverty levels increased in Malawi.

On the other hand, increase in age lowered per capita consumption expenditure because as youth get older they have more responsibility and they are more likely to support the family which could attribute to lower well-being. These results were consistent with

Mignouna *et al.* (2015). Similarly, large household size is more likely to lower per capita consumption expenditure because more income is required to cover the expense of the family members who are inactive and do little to contribute to household income. This is consistent with (Mignouna *et al.*, 2015; Lekbane and Seleka, 2017). Suggesting that as catering for large household may lead to decline in consumption expenditure.

However, study results have failed to show evidences of any statistically significant correlation between land ownership and per capita consumption expenditure. Similarly, between distance to the market and per capital consumption. This reflects the small land size owned by youth and long distance to the market as shown in Table 3.1 which inhibits youth from making any meaning investment or production. This confirms the study by Benson *et al.* (2019) who reported that most people are unable to farm at a scale sufficient to meet all their welfare needs due to small agricultural landholding.

Additionally, results from focus group discussions revealed that youth experience challenges like lack of farm inputs, land, markets and credit among other things which affect youth earning capabilities thus, lower consumption expenditure. In all focus group discussions, participants pointed out that majority of the youth work more in farms which has low wages. Suggesting a ripple effect such as limited land and market access leads to limited sales and low earnings. Therefore, low level of well-being. Also, results from focus group discussions particularly participants from ACADES accentuated that youth have been economically and socially empowered through agribusiness. Participants highlighted that they are able to meet basic needs and the living expenses of other family members such as provide food, paying school fees for children among other things. Participants further eluded that youth get equal share of resources and opportunities from ACADES which makes the well-being of both male and female youth to equally improve.

Nonetheless, participants underscored that lack and delay of access to markets results in little earnings. Therefore, affecting well-being of youth in agribusiness.

### **3.9 Conclusion and Recommendations**

Based on the study findings, it is concluded that employment in farming, but also in a mix of farming and non-agricultural business as well as employment in off-farm agricultural activity have effects on well-being of youth. Furthermore, age of youth, education level of youth, household size, access to credit, owning livestock and residing in urban areas, have effect on the well-being of youth. Moreover, the study concludes that youth employment in agribusiness have effects on subjective well-being of youth. The study recommends that the government needs to invest in the agribusiness sector by and with youth so as to have positive socio-economic effects among youth. Therefore, it is also recommended that the government should put in place an integrated approach to support youth with increased access to credit, improve access to education in agribusiness and increase market access among other things. This will improve the livelihoods of youth in agribusiness. Thus, help improve well-being of youth in Malawi.

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## **CHAPTER FOUR**

### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

#### **4.1 Summary of Major Findings**

Below is a summary of the study's major findings in a chronological order as per presented manuscripts.

##### **4.1.1 Determinants of urban and peri-urban youth employment in agribusiness**

Objective one aimed at identifying key determinants of urban and peri-urban youth employment in agribusiness. Whereas, objective two involved analysing the opportunities and challenges youth face in agribusiness. Generally, the study results reveal that about half (44.5%) of the youth were employed in agribusiness with majority being females (23.5%) compared to male counterparts (19.5%). The results from the bivariate logit model show that age, access to credit, agricultural extension, and livestock ownership positively and significantly influenced youth employment in agribusiness in urban and peri-urban areas. Whereas, sex, marital status, household size, dependency ratio, education level, wealth and distance to the market negatively influenced youth employment in agribusiness. Similarly, results from the multinomial logit show that factors that influence youth employment into specific agribusiness categories might vary. Suggesting that youth employment in agribusiness is significantly influenced more by push factors than pull factors.

In addition, study findings demonstrate that agribusiness value chain and value addition offer opportunities for youth in agribusiness. However, limited access to credit facilities,

inadequate agribusiness education (training), lack of access to land, agricultural extensions services and lack of access to improved agricultural inputs and inadequate youth agribusiness programs are the main challenges youth face in agribusiness.

#### **4.1.2 Contribution of youth employment in agribusiness to their socio-economic well-being**

Objective three of the study aimed at assessing the relationship between youth employment in agribusiness and well-being. The study findings show that majority of youth employed in agribusiness were employed in family farm (44.5%) with an average total annual per capita consumption expenditure of MK 213 362.4 (USD 290.3). Female youth were found to have slightly higher per capita consumption expenditure compared to their male counterparts.

The findings from the chi-square test revealed significant association between youth employment across all agribusiness categories and the subjective well-being indicators (income, food availability, housing and health care). However, the level of satisfaction of youth employed in specific agribusiness categories with the adequacy of income, food, housing and health care vary. Findings from OLS analysis revealed that being employed in family farm had negative significant relationship with per capita consumption expenditure while being employed in a mix of family farm and non-agricultural business as well as being employed in a mix of off-farm agricultural activity had positive and significant relationship with per capita consumption expenditure. Furthermore, control variables such as sex, education, access to credit, livestock ownership were positively and significantly correlated with per capita consumption expenditure. Whereas, age, land ownership, distance to the market were negatively and significantly correlated with per

capita consumption expenditure. It suggests the need to promote investment in the agribusiness sector by and with youth so as to have positive socio-economic effects among youth.

## **4.2 Conclusions**

This study aimed at identifying key factors that determine urban and peri-urban youth employment in agribusiness in Malawi and analyse the implication of youth employment in agribusiness on well-being of youth. The study concludes that youth employment in agribusiness is influenced more by push factors which includes being a female, married or widow/widowed and having less education. As well as large household size, high dependency ratio, less wealth (assets), experiencing idiosyncratic shock and long distance to the market. Furthermore, youth employment in agribusiness is influenced by pull factors such as age of youth, access to credit, access to agricultural extension services and livestock ownership. Understanding the factors that influence youth employment in agribusiness is critical for developing and improving youth employment policies and programmes in agribusiness.

Moreover, the study concludes that youth employment in agribusiness especially employment in farming but also in a mix of farming and non-agricultural business as well as employment in off-farm agricultural business, have an effect on per capita consumption expenditure (well-being) of youth. The study concludes that the challenges youth face in agribusiness inhibits the growth of agribusiness enterprises and their engagement in agribusiness, which affects the livelihoods of youth thus affects their well-being. Based on the study findings, it is suggested that youth employment in agribusiness has the potential to improve well-being of youth. But, the agribusiness sector in Malawi is

characterized by low government investment and support especially towards youth. This impedes youth employment in agribusiness and hampers the reduction of youth unemployment. The policy implication of the study is that government and development partners should gear their effort towards facilitating access to credit, land, agribusiness education (training), and agricultural extension services. As well as increase access to markets among other things.

### **4.3 Recommendations**

Based on the study findings, it is recommended to the government and development partners, as follows:

- i. Reformation of national education curriculum through formation of specialized tailor-made agribusiness curricula at all education levels, with a more practical approach including financial literacy courses.
- ii. Improve access to credit facilities towards youth and tax wavers on farming equipment to help commercialise farming and help youth to acquire resources.
- iii. Improve access to land through land reforms in order to increase accessibility of land to youth for agricultural production thus, increase engagement in agribusiness.
- iv. Improve access to improved farm inputs such as seeds, fertilizers, irrigation and solar pumps to help youth in agribusiness activities through inputs loans.
- v. Improve access to extension services with appropriate knowledge and skills to support youth in agribusiness.

### **4.4 Area for Further Studies**

The study focused on cross sectional data which looks at the correlation hence, future study is needed to look at the causal relationship by using longitudinal panel data and

advanced analysis. In addition, the current study only measured well-being in terms of per capita consumption expenditure and future research can expand this by adding other measure of well-being such as wealth (assets).



## APPENDICES

**Appendix 4.1: Description of variables used in the study**

	<b>Variable</b>	<b>Variable Description</b>	<b>Nature</b>
<b>Dependent Variables</b>	Farming (family or ganyu)	Employed in farming or not	Binary
	Farming/ off-farm agri	Employed in farming and off-farm agricultural activity or not	Binary
	Farming/ off-farm non- agri act	Employed in farming and off-farm non-agricultural activity or not	Binary
	Farming/ non-agri business	Employed in farming and non-agricultural business or not	Binary
	Farming/Unpaid Apprenticeship	Employed in farming and unpaid apprenticeship or not	Binary
	off-farm agricultural activity	Employed in off-farm agricultural activity or not	Binary
	off-farm agri /non-agri business	Employed in off-farm agricultural activity and non-agricultural business or not	Binary
	Unemployed	Unemployed or not	Binary
	<b>Independent Variables</b>	Age	Age of youth
Sex		Whether male or female	Binary
Marital status		Whether married or not	Dummy
Relation to household head		Relationship to head of family	Dummy
Religion		Whether have religion or not	Dummy
Household size		Number of people in the household	Continuous
Dependency ratio		Number of dependents	Continuous
Education level		Whether primary, secondary, tertiary and none	Dummy
Wealth		Assets owns	Continuous
Land ownership		Land size owned in acres	Continuous
Livestock ownership		Number of livestock owned	Continuous
Access to credit		Whether receive access to credit or not	Binary
Access to extension services		Whether receive extension services or not	Binary
Distance to road		Distance to the road in Kms	Continuous
Distance to market		Distance to market in Kms	Continuous
Household Shock		Whether youth experienced shock	Binary
Location	Residing in urban or peri-urban area	Binary	

**Source: Authors' conception based on theoretical and empirical review**

**Appendix 4.2: Description of variables used in the study**

	<b>Variable</b>	<b>Variable Description</b>	<b>Nature</b>
<b>Dependent Variables</b>	Well-being	Per capita consumption expenditure	Continuous
<b>Independent Variables</b>	Farming (family or ganyu)	Employed in farming or not	Binary
	Farming/ off-farm agri	Employed in farming and off-farm agricultural activity or not	Binary
	Farming/ off-farm non- agri act	Employed in farming and off-farm non-agricultural activity or not	Binary
	Farming/ non-agri business	Employed in farming and non-agricultural business or not	Binary
	Farming/Unpaid Apprenticeship	Employed in farming and unpaid apprenticeship or not	Binary
	off-farm agricultural activity	Employed in off-farm agricultural activity or not	Binary
	off-farm agri /non-agri business	Employed in off-farm agricultural activity and non-agricultural business or not	Binary
	Age	Age of youth	Continuous
	Sex	Whether male or female	Binary
	Household size	Number of people in the household	Continuous
	Dependency ratio	Number of dependents	Continuous
	Education level	Whether primary, secondary, tertiary and none	Dummy
	Wealth	Assets owns	Continuous
	Land ownership	Land size owned in acres	Continuous
	Livestock ownership	Number of livestock owned	Continuous
Access to credit	Whether youth has access to credit	Binary	
Distance to market	Distance to market in Kms	Continuous	
Location	Whether urban or not	Binary	

**Source: Authors' conception based on theoretical and empirical review**

**Appendix 4.3: Questionnaire for Respondents**

<b>SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT</b>																					
	<b>Unique Household Identifier</b>	<b>Sex</b> 1=Female 0=Male	<b>Age</b>	<b>Relationship to household head</b>	<b>Education Level</b> 1=None 2=Primary 3=Secondary 4=Tertiary	<b>Marital Status</b> 1= Single 2= Married 3= Cohabiting 4= Divorced 5= Widowed 6= Separated															
<b>1</b>																					
<b>2</b>																					
<b>3</b>																					
<b>4</b>																					
<p><b>A1:</b> What economic activity are you engaged in?</p> <ul style="list-style-type: none"> <li>1- Wage employment excluding ganyu (casual work)</li> <li>2- Household business (non-agriculture)</li> <li>3- Unpaid household labor (agriculture)</li> <li>4- Unpaid Apprenticeship</li> <li>5- Ganyu (casual work)</li> </ul> <p><b>A2:</b> What is your main and secondary from the above economic activities?</p> <p><b>A3:</b> Describe your main wage job over the last 12 month?</p> <p><b>A4:</b> Describe what kind of trade or business your main wage job over the last 12 months is connected with?</p> <p><b>A5:</b> How many individuals normally live and eat their meals together in this household?</p> <p>_____</p>																					
<p><b>SECTION B: WEALTH (DURABLE ASSETS)</b></p> <p><b>B1:</b> Does your house own a [item]?</p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 20%;"><b>B2:</b> How many [items] do you own?</th> <th style="width: 15%;"><b>B3:</b> Do you own land?</th> <th style="width: 15%;"><b>B4:</b> What is the total land owned?</th> <th style="width: 15%;"><b>B5:</b> What is the area of the property? (Acres)</th> <th style="width: 35%;"><b>B6:</b> What other assets do you own?</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p><b>B7:</b> Do you own livestock? _____</p> <p><b>B8:</b> How many [livestock] do you own present at your farm or away?</p> <p>_____</p>							<b>B2:</b> How many [items] do you own?	<b>B3:</b> Do you own land?	<b>B4:</b> What is the total land owned?	<b>B5:</b> What is the area of the property? (Acres)	<b>B6:</b> What other assets do you own?										
<b>B2:</b> How many [items] do you own?	<b>B3:</b> Do you own land?	<b>B4:</b> What is the total land owned?	<b>B5:</b> What is the area of the property? (Acres)	<b>B6:</b> What other assets do you own?																	
<p><b>SECTION C: ACCESS TO BASIC SERVICES</b></p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 33%;"><b>C1:</b> How far is it to the nearest tar/asphalt road? (km)</th> <th style="width: 33%;"><b>C2:</b> Distance to the nearest daily market? (km)</th> <th style="width: 33%;"><b>C3:</b> Distance to the nearest larger weekly market? (km)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>							<b>C1:</b> How far is it to the nearest tar/asphalt road? (km)	<b>C2:</b> Distance to the nearest daily market? (km)	<b>C3:</b> Distance to the nearest larger weekly market? (km)												
<b>C1:</b> How far is it to the nearest tar/asphalt road? (km)	<b>C2:</b> Distance to the nearest daily market? (km)	<b>C3:</b> Distance to the nearest larger weekly market? (km)																			
<p><b>SECTION D: ACCESS TO EXTENSION SERVICES AND CREDIT</b></p> <p><b>D1:</b> Did you receive any advice? _____</p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 10%;"><b>No</b></th> <th style="width: 45%;"><b>D2: What kind of advice did you</b></th> <th style="width: 45%;"><b>D3: Did you receive any training?</b></th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>							<b>No</b>	<b>D2: What kind of advice did you</b>	<b>D3: Did you receive any training?</b>												
<b>No</b>	<b>D2: What kind of advice did you</b>	<b>D3: Did you receive any training?</b>																			

	receive?	
1		
2		
3		
4		

**D4:** Do you have access to credit? \_\_\_\_\_

**D5:** Did you borrow money for business or farming? \_\_\_\_\_

**SECTION E: SHOCK**

**E1:** Have you experienced any shock? \_\_\_\_\_

<b>E2: Were affected negatively by any of the following shock?</b>	
1. Weather event	
2. Death or serious illness of household member)	
3. Increase in food price	
4. Other .....	

**SECTION F: SUBJECTIVE ASSESSMENT SOCIO-ECONOMIC WELL-BEING**

**Using the following responses below**

*It is less than adequate for household needs (low)..... 1*

*It is just adequate for household needs (medium).....2*

*It is more than adequate for household needs (high)....3*

<b>F1:</b> Concerning your household's food consumption which of the following is true?	
<b>F2:</b> Concerning your housing which of the following is true?	
<b>F3:</b> Concerning the standard of health care you receive for household members which of the following is true?	
<b>F4:</b> Concerning your income. Which of the following is true?	

**Appendix 4.4: Key informant interview guide (checklist)**

<b>INTERVIEW QUESTIONS</b>
1. What do you think about the current youth employment situation in Malawi?
2. To what extent does education prepare youth for self-employment?
3. What do you think of the current education curriculum in relation to preparing youth to work?
4. What are the factors driving employment growth in agribusiness?
5. How effective is agribusiness on promoting youth employment?
6. What are the youth employment prospects from agribusiness?
7. How many agribusiness initiatives or programs are available that supporting youth?
8. How accessible are these initiatives or programs to youth?
9. How far do these initiatives and programs support youth employment?
10. How far does youth employment in agribusiness contribute to socio-economic well-being of youth?
11. What can you say about the difference in the welfare of male and female youth in agribusiness? If any
12. What contributes to these differences or lack thereof in socio-economic wellbeing among or between male and female youth?
13. How can these differences if any be reduced?
14. What policy instruments are available to development actors and policymakers in assisting formal and informal agricultural enterprises to create jobs? Why/why not.
15. What are the underpinning issues or challenges that hinder successful operation of agricultural enterprises among youth?
16. And are these issues or challenges the same for all youth in the country?
17. How can challenges youth face in agricultural related enterprises be addressed?
18. In your view, what policy recommendations should be adopted to solve youth employment problem?

**Thank you for your cooperation**

**Appendix 4.5: Focus group discussion guide**

<b>KEY QUESTIONS</b>	<b>PROBING QUESTIONS</b>
1. What are the main factors you consider to influence youth employment in agribusiness?	How do these factors influence youth employment in agribusiness?
2. What opportunities are there in agribusiness for youth?	What accomplishments have you made thus far in your lives? What assets, skills, knowledge allowed you to accomplish this?
3. To what extent does education prepare youth for self-employment?	What needs to be change and why?
4. Where do most of youth earn money?	How it is like finding work in the area?
5. How do most of youth earn money?	What differences exist between male and female in earning money?
6. How does ACADES initiatives provide youth with a good opportunity for employment?	How readily available are these to youth? How is ACADES promoting youth employment?
7. How is the engagement of females and males in agribusiness?	
8. How far does youth employment in agricultural related enterprise contribute to socio-economic well-being of youth?	What do you think has improved in your life or well-being because of engaging in agribusiness?
9. How would you compare male and female youth's socio-economic well-being after engaging in agribusiness?	What difference existing in welfare status between male and female?
10. What attributes to the difference or no difference in welfare between male and female youth?	How can these differences if any be reduced?
11. How many agribusiness initiatives or youth programs are available in community apart from ACADES?	How easily accessible are they? If there are no or limited programs, what sort of programs are most important for young people?
12. What are the main challenges youth face in agribusiness?	
13. What programs or strategies do think should be put in place to address youth employment problems? And why?	Which areas of support do you require in order to run a successful agribusiness venture? Any advice to government and development partners working on youth programs?

**Thank you for your cooperation**