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**Assessing The Relationship Between Resource Access And Youth
Involvement In Agricultural Value Chains In Kakamega County,
Kenya**

Rogito Jeremiah Magoma

102862



**A Dissertation Submitted in Partial Fulfillment of the Requirements for the Award
of the Degree of
Master of Management in Agribusiness of Strathmore University**

June, 2020

DECLARATION

Students Declaration

I declare that this dissertation is my original work and has not been previously submitted and approved for any award in any other university. To the best of my belief and knowledge, this dissertation contains no material previously written or published by another person except where due reference is made in the dissertation.

Rogito Jeremiah Magoma

102862

Signature _____

Date 22/05/2020

Strathmore University Business School

Supervisor's Approval

This research dissertation has been reviewed and approved by:

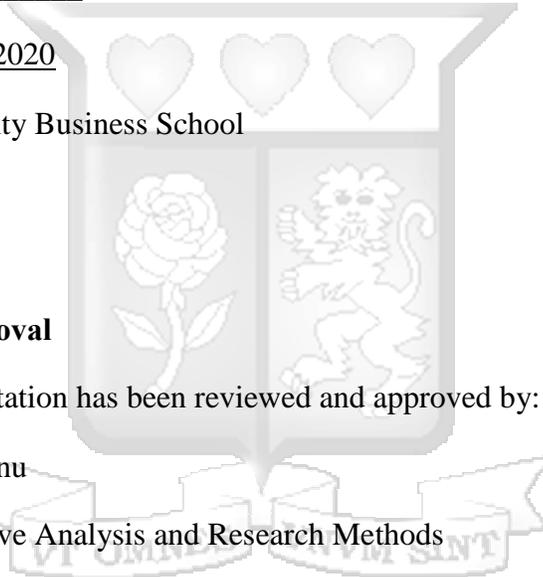
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Signature _____

Date 22/05/2020



ABSTRACT

According to the Kenya National Bureau of Statistics 2020 economic survey, 75 % of the total population in Kenya is youthful 36% of this are between 15-34 years and 38.1% of them are unemployed. Agribusiness has a huge potential in offering employment to the youth considering its wider labor absorptive capacity. Despite this, youth involvement in agribusiness is low due to existing inequalities in the value chain. In Kakamega County, there is a large percentage of unemployed young people, leading to migration from rural to urban centres by the youth. This study sought to identify the relationship between access to resources and youth involvement in agribusiness value chains. The study objectives included; identifying youth's access to land use, information services and financial services in the value chain in Kakamega County. The study was guided by the Weberian theory of social stratification which implies that to impart meaningful change in society one requires access to wealth, prestige and power. The research adopted a quantitative research design. For this study, the target population was 2453 members of registered youth farmer groups in Kakamega County. The sample size was 240 respondents. Stratified and simple random sampling was adopted to select the respondents from each of the 12 sub-counties in the County. Data collection involved using a questionnaire. Data was analyzed quantitatively using Eviews7 computer software to generate frequencies, means, percentages and correlation which has been presented, discussed, and interpreted in line with the study objectives. It was established that there is a strong correlation between access to resources in this case land, finance, and information and youth involvement in agricultural value chains. Lack of or inadequate access to these resources is a key constrain to agricultural productivity in Kakamega county. Access to the various resources affect the various segments of the agricultural value chain uniquely. Lack of access to land affects production mainly. Lack of or limited access to finance greatly affects the value chain including consumption. Limited access to information services affects all aspects of the value chain. However, it was found out that in Kakamega county, limited access to these resources does not affect the consumption of agricultural products as this is the last part of the agricultural value chain. Hence, youth are predominantly consumers of products that they did not actively get involved in producing, processing packaging and marketing. Policymakers will make use of findings in the study to formulate policies that will enhance youth equity and consequently youth involvement in the Value Chain. Scholars will find this study useful to broaden their knowledge base. Donors will find the study use as it will direct their minds to what segments of the value chain to focus on youth intervention strategies. The study is significant because agriculture is the backbone of Kenyan economy, and a source of livelihood to residents of Kakamega County.

Keywords: *Youth involvement, Resource access, Agricultural Value chains, Kakamega, Kenya*

DEDICATION

This dissertation is dedicated to my parents Geoffrey Rogito and Beatrice Mombinya, as well as my brother Jonathan Nyamota, sisters Norah Nyaboke and Marilyn Sarange. God bless you abundantly.



ACKNOWLEDGEMENT

This work was achieved through God's leading all glory to Him. I acknowledge the determination and contribution of my Supervisor Dr. Everlyne Makhanu as well as research methods lecturers, Dr. Mathuva and Dr. Hilda Mogire for exercising great patience in guiding me as I developed this dissertation. Special thanks to the youth farmer group members of the various groups in Kakamega for providing responses that shaped the discussion in this dissertation. The input and advice of Prof. Job Lagat as well as critical review of the document was very useful. Special appreciation to my colleagues at Welthungerhilfe/German Agro Action-Western Region and Equatorial Hortifresh Limited. Thank you to my family members for regular guidance and encouragement, critical reading, and constructive suggestions on this work. Tembo syndicate members, classmates, friends, and lecturers kindly receive my appreciation. You encouraged me in the development of this dissertation.



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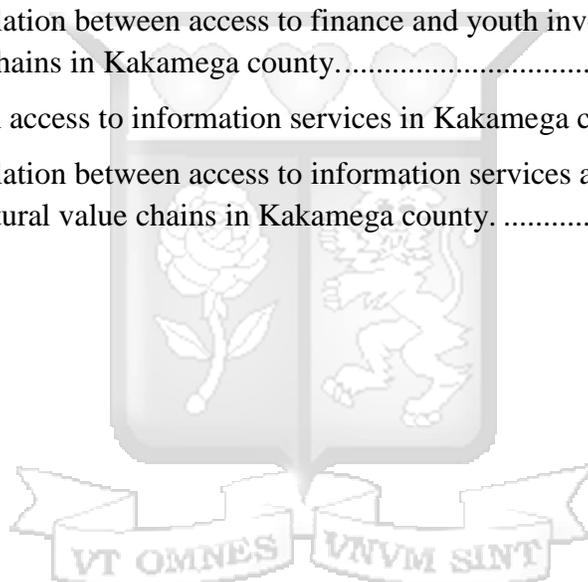
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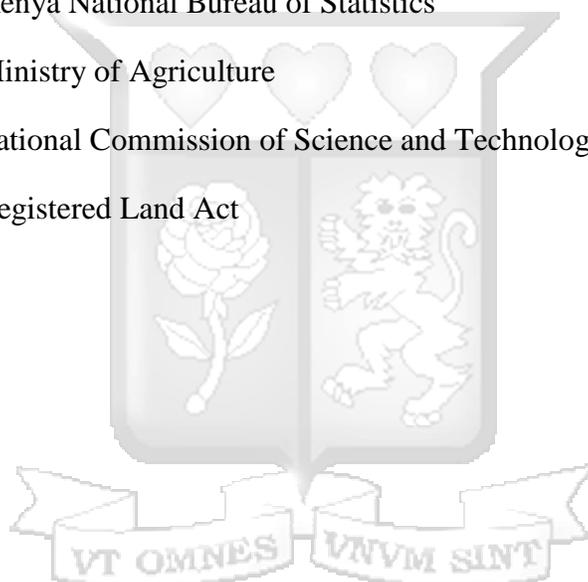
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ABBREVIATIONS AND ACRONYMS

BDS:	Business Development Services
CVI:	Content Valid Index
FAO:	Food and Agriculture Organization
ICT:	Information Communication Technology
KER:	Kenya Economic Report
KFN:	Kenya Farmers Network
KNBS:	Kenya National Bureau of Statistics
MOA:	Ministry of Agriculture
NACOSTI:	National Commission of Science and Technology
RLA:	Registered Land Act



DEFINITION OF TERMS

Agribusiness Value chains: the list of activities and exercises needed to get an agricultural product or service originating in the farm, through production, processing, marketing, transport to ending at consumer or customers (Soosay, Fearne, & Dent, 2012).

Credit services: the right to use and governing of financial services in agribusiness (Twumasi et al., 2019).

Extension services: provision plus dissemination of information and technologies which are essential in agricultural production (Sakketa & Gerber, 2017).

Equality: This is a case where all people within a given society have the same status in certain respects, property rights, including civil rights, and similar access to most goods and services that are social in nature (Nyangweso & Wambua, 2019).

Land use: access, user rights, ownership and control of land for farming activities (Sakketa & Gerber, 2017).

Resource access: refers to the social and geographic occurrence of resources on earth or among a group of people and the availability for use. In other words, where resources are located, it varies with various regions having an abundance of what others desire and various regions/people having it more available for use (Samuel et al., 2019).

Youth: a person who is below 35 years, 18-35 years (Kenyan Constitution, 2010).

Youth involvement- is the engagement of young people in issues that affect their livelihood and attempting to have them included in decision making, planning and designing (Yami et al., 2019).

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter contains an overview of the study conducted on resource access among the youth and its impact on agricultural value chains. It entails the background of the study, statement of the problem, research questions and study objectives, scope as well as significance of the study.

1.2 Background of the study

In Kenya, agriculture is commonly done by the grown-up people as the typical age of a Kenyan farmer is 59-60 years; this is as a result of rural to urban areas movement by Kenyan youth is on the increase in search of office work. However in Kenya, youth unemployment is a growing problem and this reality hits them once they get into the overcrowded stage of unemployment (Kising'u, 2016).

1.2.1 Agricultural resources

Agricultural resources mean the on-farm building, land, manure, equipment and processing facilities which take part in the production, preparation, processing and marketing of crops, and livestock products as a business or commercial enterprise. Further, agricultural resources can either be naturally occurring or artificial (Sakketa & Gerber, 2017). Resources under review include land, information and financial services. For sustainable agricultural activities access to these resources is key (Oduor et al., 2019). Land is a key factor for primary production of crops and livestock (Kimani et al., 2019). Globally, youth access to land for agriculture is limited (Charoenratana & Shinohara, 2018). In many parts of the world, access and control to land for production is an inhibiting factor to both the young people and women in agriculture since traditional systems have bestowed ownership of land to heads of the family who are mainly male, thus, limiting the ability of youth to control land use where they can farm (Bergman., 2019).

For effective and successful land use, user rights, ownership and access to agricultural information and extension service is key. Youth would participate in a fast and changing environment by building their ability and interest in non-monetary employments (Green, 2012). For increased agricultural output and incomes various countries in the world have adopted various production

strategies as is the case in Sub Saharan Africa. Successful agri-production heavily depends on natural, financial and information resources. Age and gender factors affect access to these productive resources that are essential, beneficial and powerful part in the farming division (Carter, Trainor, Cakiroglu, Swedeen, & Owens, 2010).

Information and quality data on new techniques is significant for agribusiness investors on whether to take in a new development or not. In Kenya, the ratio of national extension staff to farmer ratio is estimated at 1:1500 in relation to the recommended ratio of 1:400 internationally (Afande et al., 2015). This has led to less or lacking awareness of improved agribusiness practices limiting most farmers from developing with the dynamic technological advances (Irungu et al., 2015). Access to credit and finance is as essential as access to land, in other parts young people can access land but have no money to invest in it (Afande et al., 2015). Increased access to financial resources provides an opportunity to improve plant yield and quality, security to sustain the value chain and central budget of entire people and nations (Sakketa & Gerber, 2017). Minimal Savings by the youth, high unemployment rates, high prices of land and low wages for youth make them unable to practice agriculture (Adekunle, Adefalu, Oladipo, Adisa, & Fatoye, 2010). Avenues that were created to enhance access to finance such as Youth Fund and Uwezo Fund have not been able to achieve their purpose due to limited knowledge among the youth as well as stringent measures to access the loan money (Afande et al., 2015).

For this study, resources of key interest will be land, information and financial services. This is in agreement with Sakketa & Gerber (2017) definition of agricultural resources.

1.2.2 Agricultural Value Chain

According to Soosay, Fearn and Dent (2012) the sequence of activities that develops a product and service from the start is a value chain. It involves combining factors of production in agriculture to meet market demands of the service or product from start to final consumption.

Components of an agricultural value chain entail production which is the growing of grass, crops, or trees attached to the surface of the land or farm animals with commercial value. Input supply which involves giving away of feedstuffs, fertilizers and permitted plant protection products as well as cleaning agents and additives used in food production. Transportation is also an essential aspect of crop production that enables the delivery of agricultural resources to a farmer.

Distribution which is involved with the delivery of goods produced in factories and/or commodities in agriculture to reach the customers. Agricultural processing which is the processing of crops or milk to produce a product primarily for wholesale or retail sale for human or animal consumption, including but not limited to potato, fruit, vegetable, and grain processing. Establishing a retail or wholesale business in farm supplies is essential for easy access by the consumer. Consumption the action of using up a resource produced in the farm and is the last section in the agricultural value chain (Soosay, Fearne, & Dent, 2012).

Many actors take part in a value chain cooperating as the product moves from point to point. It is said that players in a value chain while cooperating to reach the final consumer at times cannot tell how they are linked up either forward and or backward across the chain (Nasra-Allah et al., 2020).

This study will refer to the agricultural value chain as activities from production, input supply, transportation, distribution, processing, whole selling, and retailing to final consumption this is in agreement with Soosay, Fearne and Dent (2012).

1.2.3 Youth involvement

Youth is defined in many ways but mainly with reference to age brackets; an agreement has not been reached on the lower and upper limits (Afande, Maina, & Maina, 2015). For example, in Ethiopia, the Ministry of Youth, puts youth bracket between 15 – 29 years (Sakketa & Gerber, 2017). National Youth Policy of Ghana, 2010 has put it 15-35 (Naamwintome & Bagson, 2013). In Senegal, the Youth Development Sector Policy Letter has 15 – 35 years as age bracket for youth. Kenya's National youth policy has set it at between 15 – 35 years, while, the Kenya Youth Enterprise Development Fund has set it at between 18 – 35 years (Charles, Loice, Joel, & Samwel, 2012). Youth, according to the UN is a person ranging between 15 – 24 years old (Cumiskey, Hoang, Suzuki, Pettigrew, & Herrgård, 2015). The World Health Organization defines youth as people between 10 and 24 years (Cárdenas, De Hoyos, & Székely, 2015). The Kenya vision 2030 identifies youth as any persons between 15-35 years. Samah (2015) referred to the youth as men and women, young who have a lot of strength and energy physically and mentally. This definition goes beyond the confines of age.

The agribusiness sector has a lot of potential, despite this, youth engagement in agribusiness is reducing in many countries in Africa, as is the case in Kenya (Fox et al., 2016). According to Afande, Maina, and Maina (2016), young people constitute a huge population and are predominantly located in rural areas where most are unemployed; therefore, it's necessary that they are sustainably engaged in Agriculture. Change in society, including change in behavior, is mostly driven by young people. The participation of young people is paramount for many development interventions; the growing age group of 15 to 24 years will determine its relevance (Cumiskey et al., 2015). Huge and massive youth population makes it challenging and a bit difficult in designing, planning, initiating, implementing, monitoring and evaluating youth development strategies, for example, social economic enterprise development. Many challenges arise during rollout of the youth development strategies, affecting them from reaching their great potential. The possibility of agriculture offering employment for the youth is well known locally and around the world (Charles et al., 2012).

This study will refer to youth as people in the age bracket of 18-35 years in concurrence with the Kenya Youth Enterprise Development Fund.

1.2.4 Overview of Kakamega County

Kakamega County is found in Western Kenya and borders Siaya, Bungoma and Trans Nzoia, Uasin Gishu and Nandi Counties. The region covers an expanse of 3,051.3 Km² and is the second most populous county after Nairobi with the leading population of rural people. The altitude of the county is between 1,240 metres and 2,000 metres above sea level. The southern part of the county is hilly. The annual rainfall ranges from 1270.1 mm to 2124.1 mm per year. Rainfall pattern is uniformly distributed across the year with March and June getting heavy rains as November and February receive light showers. Temperatures vary from 17-29 degrees Celsius. The hottest months are January, February and March, other months have moderate temperatures except for June and August that are relatively cold (Kakamega County Integrated Development Profile, 2017).

Kakamega County has 12 Sub counties: Malava, Lurambi, Lugari, Navakholo, Likuyani, Matungu, Butere, Mumias West, Khwisero, Shinyalu, Mumias East, and Ikolomani. The county has two main ecological zones; the Lower Medium (LM) and the Upper Medium (UM). Upper Medium entails the Northern and Central parts of the county such as Malava, Navakholo, Lurambi,

Ikolomani, and Shinyalu where intensive tea, maize, beans and horticultural production on subsistence is mainly practiced; and Likuyani and Lugari where large scale farming is practiced. The Lower Medium (LM), covers mainly the southern part of the county that includes Mumias East, Matungu, Mumias West and Butere. Here, the main economic activity is the production of sugarcane with a few farmers practicing tea, groundnuts, maize, cassava and sweet potatoes production (Kakamega County Development Profile, 2017).

According to the 2019 Population and Housing Census, the population without a job in the county was 849,497 out of which 134,614 are between 18-34 years. The implication is that most of the people in the labour market are not meaningfully engaged. Sectors that form a significant number of self-employed persons include the boda boda, cottage industries and Jua Kali. Agriculture sector involvement was as follows Farming 335269, Crop production 321945, Livestock production 235264, Aquaculture 2223 and Fishing 318. Self-employed persons in agriculture, involved themselves mostly in bush clearing, planting, land preparation, thinning, weeding, pruning, harvesting, marketing, storage and transportation as well as post-harvest practices (Kenya National Bureau of Statistics, 2019). Others are occupied in brick making, forestry, mining, and construction of buildings (Eckert et al., 2019). As a result, conducting a value chain analysis to understand the relationship between resource access among the youth in Kakamega County and their involvement in agribusiness value chains was essential.

1.3 Statement of the Problem

With the availability of a wide range of agricultural resources in Kakamega County, agricultural productivity is not improving over time, despite having the capacity to stimulate agricultural productivity in Kenya. Maize yield, for instance, has stagnated at 2 Tons per hectare since 1989 (Kakamega County Development Profile, 2017). Kakamega County has access to adequate rainfall and good soil, yet youth have not embraced farming. This is because these farmers face inequalities in access to resources (Charoenratana & Shinohara, 2018). Kenyan Constitution (2010) spells out rights to land access by everyone. However, in many regions and communities these rights are not honored (Fairbairn, 2013).

In Kakamega County, there is a large number and percentage of unemployed young people leading to migration from rural to urban centres (Amare et al., 2019). These centres are unable to generate

jobs as fast as population growth leading to youth unemployment (Fox, Senbet, & Simbanegavi, 2016). The high rate at which youth seek credit to join the “boda boda” (motorcycle) business, gambling (Sportpesa, Betway, Elitebet etc.) is a worrying trend in the county (Ehebrecht, Heinrichs, & Lenz, 2018). Many youths can avoid vices such as crime, gambling, sexual immorality, and substance abuse by involvement in agribusiness. Despite worrying trends on youth’s lack of involvement in agriculture, little research has been done to establish youth’s opinions, speeches and ambitions toward agribusiness (Amegnaglo et al., 2019). Therefore, there is little proof of enhanced youth engagement in agriculture value chain undertakings in Kakamega.

There is criticism on lack of youth awareness of these programs or reaching a minute percentage of the young people who need the support (Irungu, Mbugua, & Muia, 2015). Despite the extensive venture by the government, as is the case with development associates in offering capacity building and funds provision to youth groups and young people in Kakamega, it’s not clear how coordinated the programmes are or in actual sense who receives these grants. Youth in Kenya contribute to 70% of the overall unemployment in the country; this is because Kenya’s economy is at present reliant on agriculture (Ehebrecht, Heinrichs, & Lenz, 2018).

Hence, this study in Kakamega County, sought an understanding of the relationship between resource access and youth involvement in the value chain, their access to land, extension/information and financial services in agricultural value chains for enhanced agricultural production, employment creation and food security in Kakamega County.

1.4 Research objectives

1.4.1 Purpose of the Study

This study aimed at establishing the relationship between resource access and youth involvement in agricultural value chains in Kakamega County.

1.4.2 Specific objectives

- i. To establish the relationship between access to land and involvement in agricultural value chains among the youth in Kakamega County, Kenya.
- ii. To establish the relationship between access to financial services and involvement in the value chain among the youth in Kakamega County, Kenya.

- iii. To determine the relationship between access to information services and involvement in agricultural value chains among the youth in Kakamega County, Kenya.

1.5 Research Questions

- i. What is the relationship between access to land and youth involvement in agricultural value chains in Kakamega County, Kenya?
- ii. What is the relationship between access to financial services and youth involvement in the value chain in Kakamega County, Kenya?
- iii. What is the relationship between access to information services and youth involvement in agricultural value chains in Kakamega County, Kenya?

1.6 Scope of the Study

This study sought to identify the access of agricultural resources among the youth and their effects on youth involvement in Agribusiness value chains. It was conducted in the county of Kakamega, in all the 12 sub-counties. This study area was selected since the main economic activity in the region is agriculture. Kakamega county is also cosmopolitan and the second-most populous county in Kenya. The study looked at issues of access to land, finance and information services among the youth in the county. Crop and livestock enterprises are predominant with average farm size in Kakamega County being 1-3 acres (Kakamega County Development Profile, 2017). This study was done between October 2019 and December 2019.

1.7 Significance of the Study

Some of the problems now emerging within our society is as a result of unemployment, in reviving the agriculture sector, this problem can be sorted out. If youth are incorporated fully in the agriculture sector, they will avoid other socially unacceptable practices. The study was significant to young people and youth groups in Kakamega County as it seeks to unravel poverty and unemployment amongst the youth through engagement in agribusiness.

Policymakers especially the Ministry of Agriculture, County government of Kakamega and other interested parties in the financial and extension information service delivery, will find information from the study useful in forming policies that will ensure youth equity, for quick and effective provision of agricultural information services and monetary services. Interested parties in various

agricultural value chains will be informed of the prevailing youth inequities. Information on proposed interventions to promote youth access to resources for improved productivity will be provided.

The study will benefit Scholars as it will increase knowledge on issues of youth participation in the agricultural value chain and provides the basis for future research. It will also contribute to the knowledge of youth access to resources across the value chain. Donor agencies will use the research findings to establish areas that require to be looked into when allotting grants for amplified efficiency and productivity.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The Chapter contains reviewed literature on resource access on youth involvement and their influence on agribusiness value chains. Culture, policies, institutions, and laws influencing youth involvement have also been discussed with emphasis on access to and use as well as control of agricultural productive resources. It also features the conceptual framework, the theories that the study was anchored and the knowledge gaps.

2.2 Theoretical review

According to Mibey (2015) a number of studies have indicated that there are various theories and models if followed more young people would be involved in agribusiness.

2.2.1 Weberian Theory

This study was be guided by the three-component theory or Weberian stratification as coined by Max Weber (Weber, 1978). This theory was developed by German sociologist Max Weber in which he argued that power, status and class are ideal but distinct types. The author further developed a social stratification that took a multidimensional approach which shows that wealth, prestige and power interact. He also stated that class, status and power not only affect individuals but also affects others in society.

Wealth economic situation analysis may include; property such as houses, buildings, lands, farms, factories and among others. Prestige status is with respect to which a person is regarded by others. While power is the ability of a person or group of people to attain their objectives despite opposition and challenge from others. Power has two dimensions, possession of power and exercising it. In America in 1989, the theory was applied to show how women in household due to lack of power, prestige and wealth in terms of resources, they are unable to effect any special change to the economy (Blumberg & Coleman, 1989). Wallerstein in applying the Weberian theory stated that using the three components, society is divided into different classes based on gender, age and race hence having an impact on agriculture (Wallerstein, 2011).

The theory is relevant to the study because, youth in a society are unable to impact any meaningful change due to existing inequalities that deprived them of wealth, power and prestige to bring about the change. Aspects of wealth as portrayed by ownership of property land, information and financial resources are a challenge. Youth's lack of power in society is also a challenge. This study will seek to assess the youth resource access inequalities that exist and how they affect youth participation in agribusiness projects in a society.

2.2.2 Sen's Entitlement Theory

The study was also directed by Sen's Entitlement Theory. This relativity as anticipated by Sen (1981) is one sort of ownership that can be acquired by four methods; Trade-centred entitlement, Inheritance and transfer entitlements, Own-labour entitlements and production-based entitlements. Trade takes place either by transaction or production. The entitlement arrangement of a person can be determined by two factors; the ability of a person and the give and take entitlement. Other than the ability or ownership factor, the key determining factor of a human being's wellbeing is his give and take entitlement. On the other hand, the main factor is on whether they can give and take their endowment or give and take and if so for by what time and at what speed. The give and take entitlement vary from one person to another based on opportunities enhanced to them.

The concerns are broadly differing varying from social customs, property rights, gender and youth empowerment actions for women and youth entitlement factors to academic concerns. Sen, (1981) moved ahead to challenge that prospect of ownership in the end of the enhancement, and that attention should be relocated from people with low earning to those wanting in progression of human competences. Dumont et al. (2009) applied the theory in youth entitlement and its effect on social-economic issues in society. The results of this study offer support to the further use of economic motivations and endorsing social integration among youth as pillars of peacebuilding programs in South Africa and similar settings. He pointed the need to enlarge young people's political and civic engagement to drastically reduce their risk of participation in violent movements. Several donor programs in South Africa and other countries have already adopted this lesson and are promoting constructive possibilities for political participation among youth alongside hard work to advance their economic freedom for meaningful engagements.

This theory is relevant as it suggests that inequalities in resource access is an impediment to agricultural value chain development and youth involvement. It further suggests that all people in society are entitled to equal access to resources. Hence youth are also entitled to access the agricultural resources available in society. The guidelines of rights in agribusiness are the obligations and civil rights which affect the value chain elements including land, financial services and information services. These elements affect agricultural productivity.

2.3 Empirical review

2.3.1 Access to land and youth involvement in agricultural value chains

Youth access to and control over the most important asset of agribusiness production is a challenge as parents hold land ownership. Often at times young people end up with no land or very small parcel, for helpful agriculture to them large tracts of land is needful (Osti et al., 2015). Around the world, youth access to land as a critical agricultural asset is limited. In the United Kingdom, for example, land prices are very high and there are very few farms for sale (Cotula, 2013). In many parts of the world, access and control to productive land is an inhibiting factor to both the women and youth in agribusiness since traditional systems have bestowed ownership of land to head of the family, thus, limiting the ability of youth to control land use on where they can farm (Michalscheck et al., 2020).

In customary African countries social orders, agriculture is basically an old male obligation. Older men manage all farming operations and sell the produce (Fischer & Qaim, 2012). This leads to imperfect choices in regard to crop decisions (Kidido & Burgi 2020). Yields are comparatively low than it would be if the whole family was involved and assets were used effectively (Charoenratana & Shinohara, 2018). In many African countries, social norms and customary laws determine how land will be transferred inter-generationally, and these system works against the interests of youth in rural area (Jayne, Chamberlin, & Headey, 2014). Issues of land tenure continue to limit many young people from being engaged in agriculture, many young people use land without exclusive ownership rights (Oluoko et al., 2019). In Pakistan the older people are not willing to share their land with the young people fearing it will not be enough for everyone (Osti et al., 2015). In rural Ethiopia as well as other African countries like Mozambique, where many

youth live, there is constitutional right to have access and control land in their community despite this, majority do not own land(Abbink, 2011).

According to Rose et al., (2020), Hebrew Scriptures attest to us that over time land has been a vital matter that linked people with Yahweh. In other words, it was in the land that people had right to use to life. Land has also been something that people looked for and it is with this reason that when they were Promised Land that would enable them to achieve their prosperity. The land somehow provided people of God to have a closer relationship with their creator. Hebrew scriptures inform us that land has been something natural. The book of Genesis talks of an individual who is promised land and later that promise is shared by his descendants. It talks about obligations that were to be met by those who were to secure land. Land gave life and this tasked people to acquire and take maintain it.

According to a study conducted by Mibey (2016) in Bomet Central Sub County, Kenya, this study established that, the number youth who strongly agreed that land prices are high were highly represented by 44% and followed closely by 34% who agreed that land prices are high, 2% of the youth were not sure of the land prices while those who either Disagreed or Strongly disagreed that land prices were indeed high were represented by 10% and 8% respectively. Further, 28% of the youth disagreed that the parents give them land to farm, followed closely by those who strongly disagreed by 27% and those who agreed by 22% while 6% were neutral. Youth who strongly agreed with the statement were 7%. Youth who strongly agreed that they have access to productive land for agribusiness projects were 11%, those who agreed were 13%. Those who strongly disagreed were 36% followed closely by those who only disagreed by 31%. 9% were neutral. Youth utilization to the available land for agriculture was also realized to be low.

In Kenya several youths work on the family land and in most cases, they get no pay from the labor. World Bank (2011) established that the world population is anticipated to grow from 6.79 billion in 2011 to 9.23 billion in 2050 and rural population is likely to continue growing until 2020. Subdivision of land is the result of growing population growth as well as highly split parcels (FAO, 2011). As a result, young people particularly those who have many siblings inheriting a minute portion (Ronner et al., 2019). In cases where land is possessed communally, rulings on land use is

normally taken by the older people, often overlooking young people interests. In many countries in the Middle East and North Africa, division of inherited land is discouraged, hence farmers have to work on the piece on a joint-ownership state with their co-heirs (Njeru et al., 2015).

For youthful ladies it is more problematic to get land. Gender and land rights database kept by FAO demonstrates state gender discrepancies in land holdings world over. Mali for example, only 3% of the landowners in the country are women and less than 2% of the accessible land worldwide is owned by women (FAO, 2013). FAO (2013) further established that land rights in many communities are overseen by both customary and statutory laws (Sala et al., 2019). In Kenya, many of these traditional laws reject women right to ownership or use of land. Land is inherited by men and women attain user rights through their close association with a male relative (Mwaura, 2017). This is steady across wide areas in Kenya where the traditions and cultural perspectives are really granted hence denying female young people access to land for farming (Ombogo, 2017).

According to a study conducted by Kerubo (2019) assessing the inequalities in ownership and access to land among the women in Ainabkoi Sub County, Uasin Gishu County, Kenya, it was realized that women do not secure land by inheritance for farming and production as illustrated by 60% of the respondents. However, 86.6% settled on that women do not secure land by hiring. Further, 86.4% of the respondent also settled on that women do not secure land by purchasing for their farming activities. In the study, 67.4% of the farmers differed by saying that the land is under the name of the female family member as 80% of the respondent settled on that female do not possess land for their farming activities. Another 80% settled on that female members do not have access over the land for their farming activities. In the study, 60% also disagreed that the society has no influence on how land is allocated in their family for farming while 81.4% of the farmers opposed that the household they come from there are detached male and female plots for farming.

The new constitution of Kenya 2010 enables progressive human rights, youth and women are beneficiaries in a great spectrum and specifically land reforms, despite all this youth rights in terms of access to land as a resource is still a challenge to sustainable agriculture by the youth. Youth access to land is in two ways, the use of physical land and provision in terms decision making (Gichimu & Njeru, 2014). In Kenya land rights are governed by both customary and statutory laws

in many regions and communities. Many youth can only cultivate the family land and get nothing from this endeavor (Boye & Kaarhus, 2011). This illustrates how young people are deprived of the chance to get self-employment through agribusiness.

2.3.2 Access to financial services and youth involvement in agricultural value chains

Access to credit and finance is so essential as access to land, in other parts young people have access to land but have no money to invest in it (Afande et al., 2015). Increased access to credit offering organizations provides an opportunity to improve plant yield and quality, security to sustain the value chain and central budget of entire people and nations (Kimani et al., 2020). There is limited youth savings, high unemployment rates, high prices of land and low wages for young people in rural areas which makes them unable to purchase land (Korankye, 2019).

Farming and agribusiness to the formal banking sector is considered a high-risk venture, hence they give farming little attention (Osti et al., 2015). Youth form a high-risk client category than the elderly as perceived by financial institutions (Yami et al., 2019). Complicated land laws and tenure systems plus risks associated with agribusiness have led to less use of land a collateral, hence, financing agribusiness is not attractive to the Kenyan banking industry (Mwithali & Were, 2019). According to FAO (2013), rural youth in Africa and Latin America have no knowledge in drafting business plans hence their business ideas cannot be “bought” by financial institutions. Kenya has a well-structured banking system in spite of this, access to bank financial services by the youth is a significant challenge (Ali, 2017). Limited support from the family is the only common source of finance for young people willing to participate in agribusiness activities (Nyangweso & Wambua 2019). Loans as a source credit remains difficult due to lack of essential collateral like land, logbook or savings to get credit from banks and microfinance institutions (Mohamud & Ndede, 2019).

It is further argued that loans are mainly given to youth who have established enterprise or agribusiness rather than start-ups (Fischer & Qaim, 2012). Apart from credit, it's been stated that savings are significantly necessary for youth since it aids them build assets and respond to emergencies. Unfortunately, financial service providers have often focused especially on credit

rather than facilitating savings, only less than half of microfinance in Sub Saharan Africa offer savings products (Gichimu & Njeru, 2014).

Youth in agribusiness have close to zero access to finance. Women Enterprise Fund and Youth Development Fund are attempting to give structured support for increased awareness and youth involvement; however, many groups have not benefited from this initiative. Some youths have no idea on the existence of the funds (Issa & Kiruthu, 2019).

In Kenya, the absence of capital and access to inexpensive credit is mentioned by the young people as the major element behind the little productivity in agribusiness (Macharia et al., 2020). The right to acquire bank credit especially by youth farmers is a key challenge regardless of the reality that Kenya has a reasonably well-established banking system (Gachuhi & Awuor, 2019). Risks connected to agribusiness coupled with complex land laws and tenure systems that put boundaries in the use of land as security make funding of agriculture unappealing to the formal banking industry in Kenya (Samuel et al., 2019). Thus, family provision is a common funding source for youth eager to start a farming activity which is normally inadequate (Musa, 2020). Loans are the most normally obtainable monetary products to youth. However, many a times, acquiring credit remains problematic for young people as they frequently lack the required security such as land or savings to acquire credit from financial institutions (Herbel et al., 2015).

Youthful ladies face added obstacles to obtain credit even though it is established that they are more dependable clients than men (Chepkoech et al., 2019). Legal policies and traditional rules frequently inhibit women's right to have to and make decisions over assets that can be accepted as security in agricultural credit sources. Kenney and Fletschner (2017) saw that youth ladies are much less expected to have land titled under their name and are less expected than male youth to have decisions over land, even when they do officially own it. Typically, they have lower literacy levels than men, often do not have security such as land and in some communities, their movement is controlled (Twumasi et al., 2019).

McNulty and Nagarajan (2015) stated that loans are usually only made available to youth who have a recognized running business rather than to start-ups. In a substantial number of cases, farmers turn away credit given as input materials or even cash thus making repayment of the same not

effective (Kangai et al., 2011). Without credit, young farmers are not capable of adequately investing in Agriculture. Credit accessibility issues notwithstanding, FAO (2013) showed that young people in rural areas are usually cautious of taking loans because they fear that they may not be able to manage to repay. Apart from credit, Kenney (2015) established that savings are exceptionally important for youth; it assists them put together assets, plan for life events and react to crises. Unfortunately, financial service providers have a tendency of focusing more on credit instead of enabling savings. Kangai (2011) stated that it is only less than half of microfinance providers in most of the developing world that deal with savings products.

According to a study conducted by Mibey (2016) in Bomet Central Sub-County, Kenya assessing youth access for financial services, the study found out that youth fund is at reach to the youth, this statement was disagreed by 33% followed by those who strongly disagree by 30%, 19% agreed while 11% strongly disagree with the statement. The least was neutral by 7%. To get a loan is a tedious process in Bomet Central Sub-County. The youth who agreed with the statement were the highest by 42% followed closely by those who strongly agreed by 33%. Those who did not agree were 10% followed by those who strongly did not agree by 8%, those who were neutral were the least by 7%. On the issues of affordability of bank loans, youth who strongly disagreed with the statement were highest by 51% followed by those who disagreed by 33%. Youth who strongly agreed were the least by 4% followed by those who agreed by 11%. In the study, youth who agreed that they are in self- help groups to facilitate access to credit were highest 44% followed by 33% who strongly agreed. Those who disagreed were 17% followed those who strongly disagreed with 8%. Those who were neutral were 9%.

According to a study conducted by Kerubo (2019), 76.8% of the farmers agreed that female farmers have the right to get funds from lending facilities for their agribusiness activities. However, 54% settled that to get loan money they need to have a title deed, 74% of the respondent also settled to that the resolutions on how to expend the loan money are made by the senior man figure considered to be head of the family for farming activities. Further, 74.6% settled to that loan money is not put to purchase of fertilizers and other farm inputs for their agricultural activities while 71.3% of the farmers settled to that the reimbursement rates are high as 85.7% of the farmers settled to that if the loan money is not reimbursed family assets is lost, 78.6% strongly were not in

agreement that women get money for agribusiness cannot enhance farming. Further, 84% of the farmers were not in agreement that women are capable of making on how to expend money for the enhancement of agricultural productivity.

According to a study conducted by Adekunle et al. (2010) in Nigeria, access to credit is the leading factor inhibiting youth involvement in Agribusiness. Limited access to affordable credit and lack of capital is cited by young farmers in Kenya as the key factor leading to low productivity in agriculture (Kaburi et al., 2017). Supporting youth and women with credit is a basic function, however, formal microfinance establishments have failed to achieve it (Dankelman & Davidson, 2013).

2.3.3 Access to information services and youth involvement in agricultural value chains

For effective land use, proper aptitudes and learning is required in agriculture. Youth would participate in a fast and changing environment by building their ability and interest in non-monetary employments (Green & Kisimbii, 2020). Information and quality data on new methods is significant for people in agriculture so as to know whether to take in new ideas or not. In Kenya national extension staff: farmer ratio is estimated at 1:1500 in relation to the recommended ratio of 1:400 internationally. This has led to less or lacking awareness of improved agribusiness practices limiting most farmers from developing with the dynamic technological advances (Mudege et al., 2019).

Extension information services to a great extent have taken an adult dominated often due to a misconception that young people cannot be farmers (FAO., 2013). As a result, youth are less inclined to be beneficiaries of this service (Kumar & Philip, 2019). The manner in which extension service is passed affects youth using data for advancements. Time, financial requirements and social reservations restrict youth from attending field days and such events especially if it's located far from rural homesteads (Paroda, 2019). Studies in Kenya have shown that agribusiness expansion programs often ignore plots governed by youth and women but support plots overseen by adult males (Raza et al., 2020).

Rural youth are attracted by modern ICTs, for example, mobile phones and the Internet and have the potential for enabling agribusiness innovation and facilitating dissemination and access to information to enhance on-farm productivity and providing access to markets and credit services (Njeru et al., 2015). Enhanced focus on modern ICT-based information provision is necessary. Despite the passion by development organizations working with farmers in promoting the use of ICT in disseminating agricultural information, we know little about its use in agribusiness transactions (Okello, Ofwona-Adera, Mbatia, & Okello, 2010).

Youth training on income-generating initiatives especially in the agribusiness front is very crucial. Many youths are not aware agriculture is a viable business. Youth regiment, activeness, and skilled performance is the power that is required for the development of a country (Samah, 2015). Training youth to farm quality crops and livestock will enable them to increase employment opportunities and as a result, their income will increase. With proper support and correct training youth in rural areas will be motivated to take up agriculture as a source of livelihood. They will stay in the rural areas and stop moving to towns and cities (Bezu & Holden, 2014). Their training that is timely and relevant on agricultural innovations and how to utilize them is very important towards developing knowledge and skills on agribusiness and motivating young people to come in. As a result of climatic, environmental, market changes, new technological training and information, and solution and adaptation is required with proper knowledge can skill gained by youth will prepare them to establish their own business (Filmer et al., 2014).

Despite the rising awareness on agribusiness projects, due to existing inequalities many youth struggle to access such ideas on agriculture (Yami et al., 2019). Emphasis is required to make access to, libraries schools and local municipalities where information can be obtained easily. The information should be in languages and diction the youth can understand (Abebe, 2020). To help young farmers commercialize their operations, we should invest in vocational training and revise the rural vocational and technical education curriculum. They are also are keen on boosting their production as a result of enhanced production techniques (Gichimu & Njeru, 2014).

According to a study conducted by Mibey (2016) assessing the factors affecting youth involvement in agribusiness value chains in Bomet Central Sub-county, Kenya, the study established that Local agricultural department brings together on a regular basis youth trainings. The youth who disagreed were the highest by 31% followed by those who strongly disagreed with 27%, this was

followed by those who strongly agreed by 17%, then those who only agreed by 14% and lastly the neutral by 11%. Agricultural extension services aggressively involve youth in contemporary farming techniques. The number of youths who disagreed was high by 33% followed closely by those who strongly disagreed by 28%, followed by those who agree by 14%, and those who were neutral by 13%. The least were those who strongly agreed with 11%.

Extension services are readily available for the youth. The number of youths who strongly disagreed was the highest by 37% followed by those who disagreed by 32%. The least were those who agreed by 14%, strongly agreed by 12% and lastly neutral by 4%. Youth attend extension training workshops always. The number of youths who strongly disagreed was the highest by 44% followed closely by 38% of those who disagree. The least were those who agreed with 10% and those who strongly agreed with 8%.

Agricultural extension services satisfactorily meet the wants of the youthful agribusiness community in Bomet Central Sub-County. The number of youths who disagreed was 36% closely followed by those who strongly disagreed with 35%, the neutral by 14% and lastly agree and strongly agree by 9% and 7% respectively.

According to a study conducted by Kerubo (2019) assessing the gender disparities in access to information services in the value chains, in Ainabkoi Sub County, Uasin Gishu County, established that, 62.6% women farmers do not obtain regular agricultural information services. However, 48% settled on that women all the times take part in extension meetings. Of the respondents, 26%, settled on that organization of extension services involve women. Further, 26.6% settled on that the extension services solve women's wants for agricultural activities. Further, 40% of the farmers settled on that women usually request for particular extension services. In addition, 6.6% of the respondent disagreed that access to information does not enhance worthiness to produce quality and hence superior rates. In the study, 37.6% also settled on that access to information services is organized to meet womens` wants as farmers. Additionally, 91.3% of the farmers settled on that access to extension services make female farmers advance farming abilities. The study revealed that female farmers do not obtain regular extension services, nor do they take part in extension gatherings. Men are alleged to be leading in farming and are hence, aimed at for extension services; however, the women also aggressively take part in agriculture. The men are likely to have obtained higher literacy as well as education levels as equated to women which makes it easier for them to

access information on farming and agriculture in general. Men are active in outdoor activities hence it is easy for them to intermingle with the extension information providers.

According to Irungu (2011), female farmers lack finances that will make it possible for them to take part in acquiring extension services. Women have difficulties in showing up extension gatherings due to their responsibilities which comprise of livestock and poultry management. Extension information services are offered during seminars, workshops, field days, and agricultural business to business meetings and open day forums when not within the village, women and youth are not permitted by the head of the family to attend as they have no money for transport and accommodation.

According to studies conducted by Njenga, Mugo, & Opiyo (2011) that assessed the level of awareness of existing programs supporting agribusiness activities by the youth. Majority youth (54.6%) revealed that they are not aware of any projects in agriculture in their community or area. Various projects have been developed which integrate ICTs in passing agricultural information to youths. Mobile tools like Farming Kenya, mkulima-young and m-farm. More mobile and ICT applications have been developed to provide extensive information to people interested in agriculture. However, in as much as mobile technology has highly penetrated in rural areas, Internet has not. Computers` prices are high as well as the Internet, coupled with limited or no electricity, and limited access to Internet in rural areas of Sub Saharan Africa (Boye & Kaarhus, 2011).

2.4 Summary of knowledge gaps

Several studies have been conducted around the issues of youth and agricultural resource access across the world. A study done by Adekunle et al. (2010) in Nigeria concluded that access to credit is the greatest factor inhibiting youth involvement in agribusiness. There are limited studies on the subject in Kenya. In Kenya, a study by Afande et al., (2015) stated that in some cases where access to land for the youth was not a challenge they faced the burden of getting finance to invest in it. This study, however, failed to identify why access to finance for the youth is a burden. A study by Njeru et al., (2015) stated that youth perception to agribusiness is the leading constrain to their low involvement in agribusiness. This study, however, failed to capture youths' voices about their involvement. Raza et al., (2020) argued that majority of the youth are unaware that agriculture is

a worthwhile business. Youth have the control and the progress of a country depends on their well organized, active and skillful performance. This study did not seek to understand why they are unaware of.

Existing literature or studies conducted on the subject in Kenya have failed to focus on an agricultural value chain system. Kerubo (2019) conducted a study focusing on resource access and inequalities in terms of access to crucial agribusiness resources, however, the study focused on gender and women inequalities neglecting the youth who form a majority of the Kenyan population. Little research has been done in Kakamega County in the subject of access to resources and existing inequalities that in turn lead to low involvement among the youth subject despite good agricultural potential and low involvement by a majority of idle youth.

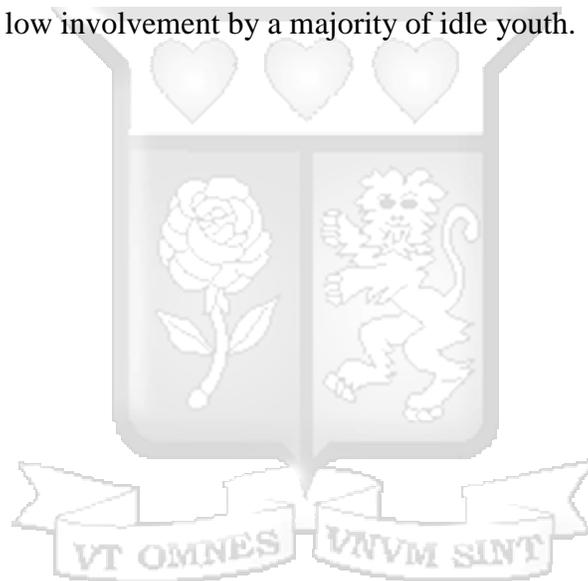


Table 2.1 Summary of literature gaps

Author(s)	Research Focus	Major Findings	Knowledge Gaps
Adefalu, & Oladipo(2010)	Factors influencing implementation of agribusiness projects in Kwara State, Nigeria	The study established that the mindset of the youth, surrounding, the government persuaded elements, and other youth enablement programs are what influence youth in taking part in agriculture.	The study did not take into consideration issues that affect youth engagement in agriculture.
Muhoma (2014)	Constraints to youths' engagement in agricultural activities in the milk value chain: a case of Rongai in Nakuru county Kenya.	The study discovered how marketing and economic factors, demographic factors and youth alertness affect youth in agriculture. The study established that most of the young people engaged in the milk value chain were in the marital state and they had restricted access to low interest funding restricting their capacity to invest.	This study was limited to the milk value chain projects in Rongai, Kenya.
Holden and Bezu, (2014)	Are rural youth in Ethiopia abandoning agriculture?	It was established that an intensified migration of young people in the past six years was due to of lack of access to land which forced the youth to make their way out of agriculture.	The study was limited to issues of land alone, staying clear of other agricultural resources.
Kerubo (2019)	Effects of Influence of Gender Inequalities on Agribusiness Value Chains In Ainabkoi Sub-County, Located in Uasin Gishu Kenya.	The study focused on a value chain perspective. It was found out there are inequalities in women's access to crucial agricultural resources. Ranging from access to land, information, and financial services.	The study failed to focus on youth who form most of the Kenyan population.

Source researcher (2019)

2.5 Conceptual framework

This section gives a presentation of the dependent and independent variables and their relationship as they were used to realize the objectives and formulate the questionnaire. The independent variable in this study will be resource access in terms of access to land, information/extension services and financial services. The dependent variable is youth involvement in the value chain. Land is a basic factor of agricultural production hence access and control of land in terms of ownership and decision making will affect agricultural productivity. For proper land utilization, credit facilities should be available. Anyone with an interest in agribusiness requires knowledge and skills for proper land utilization. All this affects productivity; access challenges faced by youth in relation to these services affect the agricultural value chain from production to consumption.

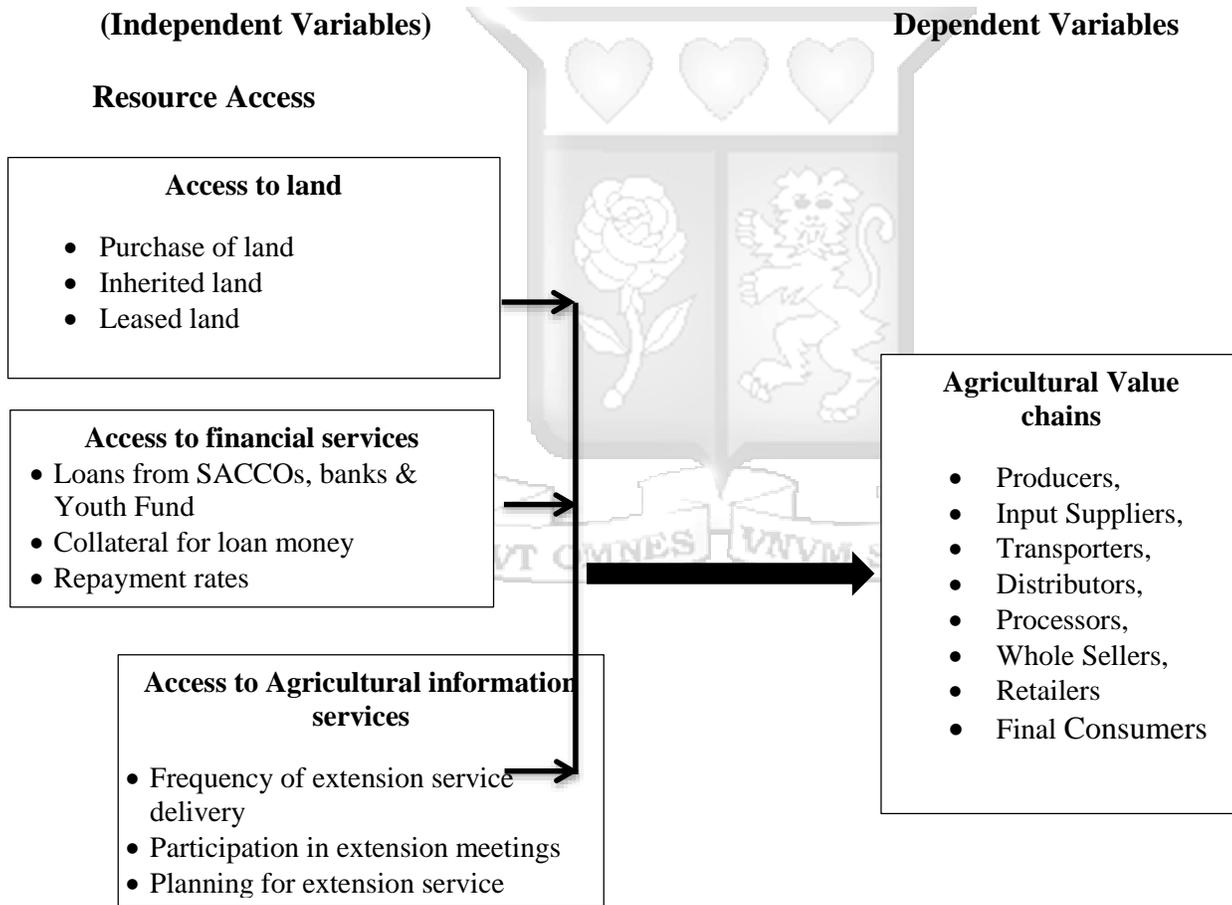


Figure 2.1 Conceptual framework

2.6 Operationalization of Variables

Resources whose distribution influence agricultural value chains were conceptualized for this study as access to land, information services and financial services. The level of measurement and the method of analysis for each of these variables is summarized in Table 2.2 below:

Table 2.2 Operationalization of Variables

Independent variable	Data instrument	Method of analysis
Access to land		
Purchase of land	Questionnaire	Descriptive and inferential
Inherited land	Questionnaire	Descriptive and inferential
Leased land	Questionnaire	Descriptive and inferential
Access to financial services		
Loans from SACCOs, banks & youth fund	Questionnaire	Descriptive and inferential
Collateral for loan money	Questionnaire	Descriptive and inferential
Repayment rates	Questionnaire	Descriptive and inferential
Access to information services		
Frequency of extension service delivery	Questionnaire	Descriptive and inferential
Participation in extension meetings	Questionnaire	Descriptive and inferential
Planning for extension service	Questionnaire	Descriptive and inferential

Source researcher (2019)

2.7 Chapter Summary

This chapter has looked at the theories and concepts of the various agricultural value chain concepts. Empirical studies on various agricultural resources, their distribution among the youth and effects on agricultural value chains have been review leading to the identification of the research gap. The conceptualization and operationalization of the various independent variables has also been covered. A conceptual framework for the study was developed in this chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers research design, study area, target population, sampling procedures and technique of sample selection. It also covers instrumentation, testing reliability and validity, methods of data collection and analysis and ethical considerations.

3.2 Research Design

According to Bryman (2016), the choice of framework for an investigation is dependent upon the research question and the object evaluated. The research was centered on a quantitative research design. To evaluate youth access to resources that affect the agricultural value chain, the researcher employed descriptive survey research design. Descriptive research shows the natural happening of a situation. Present practices as they are, beliefs and procedures that are on-going are justified and judgment on developing theories and trends are shown (Bryman, A. 2016). Facts about the status and nature of the situation during the study time are also shown.

3.3 Study area

This study took place in Kakamega County. Kakamega County is in Western Kenya and borders Siaya County to the West, Uasin Gishu and Nandi Counties to the East. It covers 3,033.8 km² and is the second populous county after Nairobi with the largest population in rural areas. The altitude ranges between 1,240 meters and 2,100 meters above sea level. Kakamega County has 12 sub-counties, Lugari, Matungu, Butere, Likuyani, Khwisero, Shinyalu, Navakholo, Mumias West, Malava, Lurambi, Mumias East, and Ikolomani (Kakamega County Integrated Development Plan, 2017).

3.3.1 Target population

The target population was all the youth farmers in Kakamega County. The study was conducted in 12 Sub Counties (Lugari, Matungu, Butere, Likuyani, Khwisero, Shinyalu, Navakholo, Mumias West, Malava, Lurambi, Mumias East, and Ikolomani.) The main moneymaking activity in the area chosen by the researcher is farming hence all the essential information for the study was

obtained (Kakamega County Development Profile, 2017). Cultural diversity, Easiness in access, and population consistency also informed the selection.

3.3.2 Sampling design

There are 897 farmer groups in Kakamega County. 126 of these are youth groups. Each youth group has 15-20 members (Kakamega County Development Profile, 2017). The study involved 2453 youth farmers. The total sample size was determined using Taro Yamane’s formula. In determining an appropriate sample size for the study, the formula is suitable as it is presumed to have normal data distribution for consideration in the diverse classes of individuals. According to Bryman (2016) acceptable sample has less than 10% error; hence for greater accuracy, in getting the minimum sample size, a sampling error of 6.5% will be used.

The formula is as shown:

$$n = \frac{N}{1+N(e)^2}$$

In which: N=population size- 2453

e= sampling error 0.065

n=sample size

Therefore:

$$n = \frac{2453}{1+2453(0.065)^2}$$

$$= 215.85$$

Hence 216 respondents is the lowest acceptable number to achieve a 6.5% sampling error. To increase the level of accuracy, 240, a higher number of respondents was identified. This was also to enhance ease of distribution of the questionnaire and to attain two respondents in each group.

3.3.3 Sample selection

To determine the sample, stratified random sampling technique was used. The population was stratified into sub counties therefore obtaining 12 sub-counties. From the population, each of the 12 sub-counties had around 8-15 youth groups this gives a total of 126 youth groups. Youths were then randomly selected from each of the 126 youth groups giving a total of 240 youths. This will

allow obtaining information from a wide range of people that is vital and relevant (Saunders, Lewis & Thornbill, 2016).

3.4 Data Collection methods

The study used the questionnaire (Appendix 1) as the primary data collection tool. The respondents were not required to give their names, name of group or An introductory letter from Strathmore University as well as ethical approval from Strathmore University Institutional Ethics Review Committee, facilitated the researcher to acquire permission from, County Director of Education, County Commissioner, County governor of Kakamega County as well as National Commission of Science Technology and Innovation, to conduct the research. The primary data collection instrument was the questionnaire. This was administered to 240 youth farmers in Kakamega County through the help of two trained research assistants. The questionnaires were then collected after filling for data analysis.

3.5 Research quality

3.5.1 Instrument Piloting

Piloting was done in the neighboring Vihiga County, questionnaires were directed to a random sample of 25 respondents carefully chosen before the actual research. Accuracy of results was checked by testing and retesting the administered questionnaires to the randomly chosen respondents. This was to make sure that respondents do not get the wrong idea of the questions; inaccurate codes and terminologies not required were removed as well as inconsistent instructions to the respondents.

3.5.2 Instrument Validity

The research made use of the Content Valid Index (CVI) to check consistency, legitimacy and significance.

This is relevant items to the objectives over the overall number of items.

$$\frac{\text{Relevant Items}}{\text{Overall number of items}} = \text{CVI}$$

According to Novak (2014), items in the instrument are legal and acceptable when the CVI is 0.7 and above.

For this study,

<u>Relevant Items</u>	<u>51</u>
Overall number of items	56 =0.91

0.91 is higher than 0.7 hence the instrument is valid. In addition, experts and supervisor`s input was sought. This is in connection with Griniel and Unrau, (2018), who indicated that the content validity of an instrument is perfected through specialist rulings. Views from the supervisor and an expert in the field was sought to ensure all themes in the objectives were captured.

3.5.3 Instruments Reliability

It is the measure of the degree to which the instruments present consistency of results when subjected to several trials. To assess the internal consistency, Cronbach`s alpha coefficient was used. One statement was given to the 25 respective smallholder farmers and three weeks later presented to the same farmers. Single items do not have a Cronbach`s alpha internal consistency reliability; hence, for a single statement calculating a test-retest reliability coefficient was vital.

According to Novak (2014), entries in the research instrument are reliable if the correlation is 0.7 and above. A Pearson Correlation coefficient of 0.82 was attained which is good enough for an explorative study.

3.6 Data processing and Analysis

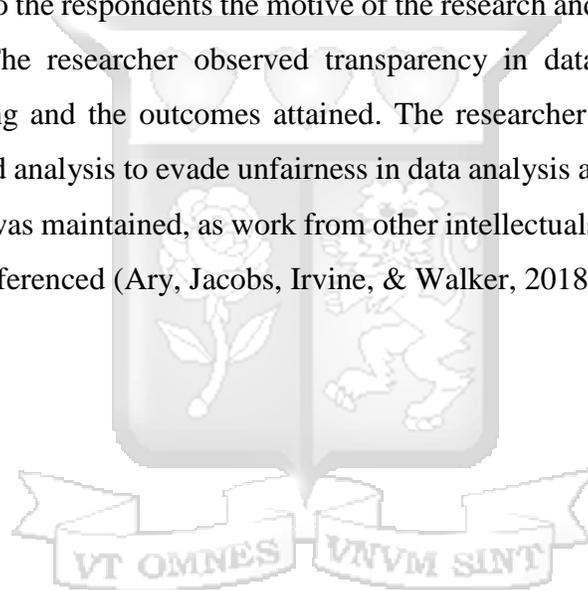
Descriptive statistics with the help of Eviews7 software was used to analyze collected data. Responses were given labels and codes. The overall trend of the findings of the study variables was deduced from descriptive information of frequencies. Mean, standard deviation, percentages, and making use of tables. Further, to assess the relationship between resources in question and involvement in the agricultural value chain Pearson correlation coefficient was used. Information received was triangulated through data editing for syntactic accuracy, sequence and exactness (Ary et al., 2020). The research problem was comprehensively addressed with the quantitative data.

3.7 Ethical Considerations

According to Bryman (2016), ethics is described as the essential principles and morals that direct human conduct. Connelly (2014) affirms that ethical considerations are important for research. The researcher did maintain ethical standards and principles in making sure that the data collected was handled with the greatest confidentiality the researcher kept his personal integrity and used data for academic purposes only. The study observed the ethical rules by striving to avoid any

harm to respondents. According to Ferreira, Buttell, & Ferreira (2015) researchers should avoid psychological or physical harm to respondents.

This was attained by receiving a letter from the Strathmore Business School accompanying the questionnaire to be administered. Before giving out the questionnaires, the researcher sought permission from the relevant bodies including Strathmore Review and Ethics Committee, NACOSTI, County Director of Education, County Government (Appendix 4,5,6,7,8 and 9) as well as powers at the Kakamega County Youth Affairs Department. The research questionnaires did not require the respondent to provide personal information. Researchers should adhere to ethical consideration by being confidential, anonymous and avoid deceptions, (Novak, 2014). The researcher made it clear to the respondents the motive of the research and guaranteed them privacy of the data collected. The researcher observed transparency in data gathering methods and procedures, data reporting and the outcomes attained. The researcher made sure of objectivity during data collection and analysis to evade unfairness in data analysis and interpretation. Respect for intellectual property was maintained, as work from other intellectuals and researchers has been quoted and adequately referenced (Ary, Jacobs, Irvine, & Walker, 2018).



CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter gives an illustration of the study findings as per the study objectives. Quantitative approach of data analysis was made use of, which incorporated descriptive statistics made use of to analyze quantitative data. In the study frequencies distribution tables were used to give a summary and present the data.

4.2 Response Rate

The overall number of questionnaires distributed for the study was 240; all the 240 (100%) were well filled and returned. This symbolizes a response rate of 100%. Frankfort-Nachmias *et al.*, (2015) showed that any comeback of 50% and above is regarded as good for analysis, thus, a 100% response rate, was excellent. This was achieved since the questionnaire was given out and directions given physically by the researcher to the selected youth and collected right after filling.

4.3 Respondent Profile

The researcher sought to find out the background information of the youth farmers who participated in the study. The findings are as shown in table 4.1.

Table 4.1: Respondent profile

General Information		F	%	Mean	S. D
Gender	Male	134	54.8	47.24%	0.494
	Female	106	44.2		
	Other	0	0		
Age	15-20	33	13.8	73.04%	0.597
	20-30	140	58.3		
	30+	67	27.9		
Education Level	No Formal	47	19.6	60.00%	0.986
	Primary	101	42.1		
	Secondary	59	24.6		
	Post-Secondary	33	13.8		
Marital Status	Single	145	60.4	51.95%	0.721
	Married	64	26.7		
	Other	31	12.9		
Main Occupation	Business	23	9.6	68.95%	0.776
	Employed	39	16.3		
	Farming	151	62.9		

	Other	27	11.3		
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Key: F- Frequency S.D-Standard deviation %-percentage Source: Field data 2019.

The education level of the youth farmers had a high standard deviation (0.986) indicating a huge variation in the education levels of the youth farmers. The gender information had a low standard deviation (0.494) indicating that the sample was fairly even in terms of gender distribution. Majority of the respondents were between the age of 20-30 (140) and were mainly single (145). In terms of main occupation (151) out of the 240 sampled youth farmers from the youth groups, considered farming is their main occupation. With others being employed or doing business and farming as a secondary source of income. Hence the sample is relevant for deducing information on agricultural information as the majority of the respondents are actively involved as farmers.

4.4 Youth involvement in Agricultural value chains

The researcher also sought to find out the level of youth involvement across the agricultural value chain. The findings are as shown in table 4.2.

Table 4.2: Youth involvement in Agricultural value chains

STATEMENT		N	SE	LE	A	%	S.D
Producers Youth involvement as producers	F	45	145	34	16	(52%)	0.769
	%	18.8	60.4	14.2	6.7		
Input Suppliers Youth as suppliers of fertilizers	F	39	143	34	24	(54%)	0.821
	%	16.3	59.6	14.2	10.0		
Youth as suppliers of seeds	F	41	133	44	22	(55%)	0.826
	%	17.1	55.4	18.3	9.2		
Youth as suppliers of chemicals	F	44	141	37	18	(53%)	0.791
	%	18.3	58.8	15.4	7.5		
Transporters Youth as transporters of agro products	F	14	63	104	59	(71%)	0.819
	%	5.8	26.3	43.3	24.6		
Distributors Youth as distributors of agro products	F	23	81	103	33	(65%)	0.841
	%	9.6	33.8	42.9	13.8		
Processors Do youth own processing plants	F	224	15	1	0	(26%)	0.273
	%	93.3	6.3	0.4	0.0		
Processors Youth as processors	F	34	43	113	50	(69%)	0.945
	%	14.2	17.9	47.1	20.8		
Whole Sellers Youth as wholesalers	F	89	98	45	8	(47%)	0.825
	%	37.1	40.8	18.8	3.3		
Retailers Youth as retailers	F	121	89	26	4	(41%)	0.742
	%	50.4	37.1	10.8	1.7		
	F	0	0	13	227		0.227

Final Consumers	%	0.0	0.0	5.4	94.6	(98.6%)	
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**Key: F-frequency S.D-Standard deviation %-percentage N-Never SE-Small Extend LE-Large Extend
A-Always Source: Field Data 2019**

Youth as final consumers had a percentage of (98.6) and low standard deviation (0.227). This indicates that majority of the youth are consumers of agricultural products. Youth ownership of processing plants had a low standard deviation (0.273) as well as a low mean of 26% indicating that majority of the youth in Kakamega do not own processing plants. However, it was realized that majority of the youth (69%) work in processing plants however the standard deviation was high (0.945) indicating the response had a huge variation from case to case basis.

4.5 Youth access to land and land use in Kakamega County

The researcher sought to find out the extent to which youth access land and land use management in Kakamega county. The results are as shown in table 4.3.

Table 4.3: Youth access to land and land use in Kakamega county

STATEMENT		SD	D	A	SA	MEAN	S.D
Youth do not possess land	F	3	7	37	193	(93%)	0.568
	%	1.3	2.9	15.4	80.4		
Youth do not get land through purchasing	F	6	9	36	189	(87%)	0.661
	%	2.5	3.8	15.0	78.8		
Youth do not acquire land through leasing	F	7	9	87	137	(93%)	0.708
	%	2.9	3.8	36.3	57.1		
Young women do not secure land by Inheritance	F	9	8	20	203	(93%)	0.698
	%	3.8	3.3	8.3	84.6		
Youth do not have user privileges over land	F	17	28	31	164	(86%)	0.952
	%	7.1	11.7	12.9	68.3		
The land is in the name of head of the family	F	0	9	24	207	(96%)	0.469
	%	0.0	3.8	10.0	86.3		
Youth access to land will not enhance farming	F	207	27	6	0	(29%)	0.432
	%	86.3	11.3	2.5	0.0		
Society has no authority In land allocation in the family	F	185	31	21	3	(34%)	0.691
	%	77.1	12.9	8.8	1.3		
Youth judgements over land will nor enhance farming.	F	189	24	15	12	(34%)	0.814
	%	78.8	10.0	6.3	5.0		

**Key: F-frequency S.D-Standard deviation %-percentage SD-Strongly Disagree
D- Disagree A- Agree SA- Strongly Agree**

Source: Field Data 2019

Youth ownership of land is a big challenge as indicated by the high percentage (93%) of youth who do not own land. Land is predominantly under the family head as shown by a huge percentage

response of (96%) and a low standard deviation of (0.469) indicating that this cuts across all the sub-counties in Kakamega county and among the various cultures in Kakamega. Out of the 240 sampled youth farmers, (207) believe that agricultural productivity can be improved through youth access to land.

4.5.1 The relationship between access to land/land use management and youth involvement in agricultural value chains

The researcher sought to find out the relationship between access land and land use management and youth involvement in agricultural value chains in Kakamega county. The results are as shown in table 4.4.

Table 4.4: Correlation between access to land and land use in and youth involvement in agricultural value chains in Kakamega County

	Producti on	Input Supply	Transpo rt	Distributi on	Processin g	Whole Selling	Retailing	Consump tion
Youth do not own land	-0.570	-0.492	0.133	-0.347	-0.460	-0.910	-0.797	0.993
Youth do not acquire land through buying	-0.567	-0.490	0.119	-0.359	-0.450	-0.905	-0.788	0.995
Youth do not acquire land through leasing	-0.692	-0.622	0.485	-0.004	-0.605	-0.994	-0.962	0.840
Young ladies do not acquire land through Inheritance	-0.537	-0.461	0.027	-0.437	-0.390	-0.862	-0.724	1.000
Young ladies do not secure land by inheritance	-0.488	-0.408	0.065	-0.393	-0.443	-0.854	-0.740	0.998
The land is under the name of head of the family	-0.524	-0.445	0.081	-0.387	-0.440	-0.875	-0.757	0.999
Youth do not have user privileges over land	-0.056	-0.137	-0.842	-0.604	0.998	0.562	0.821	-0.434

Source: field data 2019

The study found out that there is a strong positive correlation between youth access to land and land use management and involvement in consumption. There is also a weak positive correlation between access to land and youth involvement in transport in the agricultural value chain. There is a strong negative correlation between youth access to land and their involvement in wholesaling and retailing in the agricultural value chain. In general, the study finding is that there is a

correlation between youth access to land and their involvement in the value chain as shown in table 4.4.

4.6 Youth access to financial services in Kakamega County

The researcher sought to find out how and to what extent youth access financial resources in Kakamega county. The results are as shown in table 4.5.

Table 4.5: Youth access to financial resources

STATEMENT		SD	D	A	SA	MEAN	S.D
You require a title deed to access loan money	F	0	10	16	214	83.2%	0.851
	%	0.0	4.2	6.7	89.2		
You have a challenge accessing money lending facilities	F	1	13	27	199	29.0%	0.503
	%	0.4	5.4	11.3	82.9		
The repayment rates are high	F	1	16	26	197	52.5%	0.993
	%	0.4	6.7	10.8	82.1		
Loan money is not used to buy fertilizers	F	31	26	84	99	81.0%	0.818
	%	12.9	10.8	35.0	41.3		
Family property is lost if the loan money is not repaid back	F	0	18	19	203	39.3%	0.736
	%	0.0	7.5	7.9	84.6		
Youth decisions on how to spend money cannot improve productivity	F	99	108	23	10	41.0%	1.011
	%	41.3	45.0	9.6	4.2		
Youth access money cannot improve productivity	F	102	95	38	5	35.0%	0.813
	%	42.5	39.6	15.8	2.1		

**Key: S.D-Standard deviation %-percentage F-frequency SD-Strongly Disagree
D- Disagree A- Agree SA- Strongly Agree**

Source: Field Data 2019

From the research, it was noted that to receive loan money one requires a title deed indicating there is a relationship between ownership of land and access to finance this is shown by the high response of (214) who indicated that in order to receive loan money one requires a title deed. Majority of the youth farmers believe that the loan repayment rates are high. Majority of the farmers (81%) assert that loan money is not used to buy fertilizers. This indicates why 41% of the sampled farmers believe that youth ability to make decisions on how to spend money cannot affect

farming and agriculture in general. Majority of the youth (199) do not have access to money lending facilities with a low standard deviation (0.503) this indicates that this cuts across all farmers regardless of the gender or location.



4.6.1 The relationship between access to finance and youth involvement in agricultural value chains

The researcher sought to find out the relationship between access to finance and youth involvement in agricultural value chains in Kakamega County. The results are shown in Table 4.6.

Table 4.6: Correlation between access to finance and youth involvement in agricultural value chains.

	Production	Input Supply	Transport	Distribution	Processing	Whole Selling	Retailing	Consumption
You require a title deed to access loan money	-0.503	-0.424	0.046	-0.413	-0.421	-0.854	-0.730	0.999
You do not have access to money lending facilities	-0.516	-0.437	0.095	-0.372	-0.455	-0.877	-0.765	0.998
You do not have access to money lending facilities	-0.501	-0.421	0.094	-0.370	-0.461	-0.870	-0.760	0.997
Loan money is not used farm inputs	-0.747	-0.687	0.552	0.080	-0.575	-0.979	-0.956	0.742
Family property is lost if the loan money is not repaid back	-0.475	-0.394	0.065	-0.390	-0.449	-0.848	-0.737	0.997
Family property is lost if loan money is not repaid	0.757	0.701	-0.577	-0.116	0.566	0.965	0.949	-0.698
Youth access money to cannot improve agriculture	0.660	0.588	-0.533	-0.052	0.648	0.986	0.976	-0.820

Source: field data 2019

The study found out that there is a strong positive correlation between access to finance and youth involvement in consumption in the agricultural value chain. There is also a weak positive correlation between access to finance and youth involvement in transportation in the agricultural value chain as shown in table 4.6. Further, the study found out that there is a negative correlation between access to finance and production, input supply, distribution, processing, wholesaling, and retailing. The negative correlation for access to finance and youth involvement in wholesale and retail is strong.

4.7 Youth access to information services In Kakamega county.

The researcher sought to identify the level to which youth access information services in Kakamega county. The research findings are stipulated in table 4.7.

Table 4.7: Youth access to information services

STATEMENT		SD	D	A	SA	MEAN	S.D
You do not receive frequent extension services as youth farmers	F	15	15	86	124	3.329 (89%)	0.851
	%	6.3	6.3	35.8	51.7		
Planning of extension services involves youth	F	211	16	13	0	1.175 (29%)	0.504
	%	87.9	6.7	5.4	0.0		
Youth always participate in extension meetings	F	83	74	59	24	2.1 (52%)	0.992
	%	34.6	30.8	24.6	10.0		
Youth ask for specific extension services	F	12	23	104	101	3.225 (80%)	0.818
	%	5.0	9.6	43.3	42.1		
The information service addresses your needs	F	136	73	29	2	1.57 (39%)	0.734
	%	56.7	30.4	12.1	0.8		
You are access the available ICT based agricultural information services	F	197	31	7	5	1.105 (25%)	0.405
	%	82.1	12.9	2.9	2.1		
Extension services do not meet your needs	F	161	31	25	23	1.63 (40.6%)	1.011
	%	67.1	12.9	10.4	9.6		
Extension services do not add value to produce quality and prices	F	179	35	14	12	1.41 (35%)	0.813
	%	74.6	14.6	5.8	5.0		
Access to extension services makes you improve farming skills	F	0	13	41	186	3.721 (93%)	0.558
	%	0.0	5.4	17.1	77.5		

Key: S.D-Standard deviation F-frequency %-percentage A- Agree SA- Strongly Agree SD-Strongly Disagree D- Disagree Source: Field data 2019.

From the sampled farmers, (89%) asserted that they do not receive extension services this is, however, has a great variation given the high standard deviation of (0.851). Planning for extension services rarely involves the youth as indicated by the low mean of (29%) and low standard deviation of 0.504 indicating that this cuts across all farmers. There was a big variation across youth farmers in terms of their participation in extension meetings as shown by the huge standard deviation of (0.992) and a percentage of (52%). Youth farmers believe that access to extension services will make youth farmers improve their farming skills as asserted by the (93%) of the respondents. This result has a low standard deviation indicating that this belief cuts across all the youth farmers as shown in table 4.7.

4.7.1 The relationship between access to information services and youth involvement in agricultural value chains

The researcher sought to find out the relationship between access to information services and youth involvement in agricultural value chains in Kakamega county. The results are shown in table 4.8.

Table 4.8: Correlation between access to information service and youth involvement in agricultural value chains

	Production	Input Supply	Transport	Distribution	Processing	Whole Selling	Retailing	Final Consumption
You do not receive frequent extension services	-0.705	-0.637	0.404	0.018	-0.602	-0.993	-0.964	0.820
Planning of extension services involves youth	-0.122	-0.204	0.316	0.097	-0.999	-0.518	-0.784	0.922
Youth always participate in extension meetings	-0.544	-0.461	0.357	0.125	-0.628	-0.950	-0.912	0.943
Youth ask for specific extension services	-0.627	-0.569	0.334	0.315	-0.695	-0.907	-0.970	0.899
The extension service addresses your needs	-0.327	-0.243	0.237	0.344	-0.894	-0.844	-0.977	0.993
The information services does not meet your needs	-0.123	-0.203	0.338	0.427	0.990	-0.507	-0.781	0.893
You access the available ICT based agricultural information services	-0.619	-0.737	0.376	0.016	-0.702	-0.897	-0.943	0.875
Extension services does not lead to produce quality and prices	0.843	0.823	0.352	0.311	0.998	0.568	0.827	0.829
Access to extension services makes you improve agriculture	0.947	0.767	0.175	0.304	0.503	0.913	0.818	0.989

Source: Field data 2019

The study found out that there is a strong positive correlation between access to information service and youth involvement in final consumption. A weak positive correlation between access to information and youth involvement in transport and distribution exists. Further, there is a negative correlation between access to information and youth involvement in production, input supply, processing, wholesaling and retail, with the correlation of wholesaling and retail being a strong correlation as shown in table 4.8.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion based on the results/findings presented in chapter 4 of this study. It contains a summary of the findings based on the three objectives namely access to land, finance and information services. Further, the chapter contains conclusions and recommendations. Recommendations are broken into five key areas namely, recommendation for policy, for various stakeholders, for common practice, contribution to literature and suggestions for further research.

5.2 Summary of Findings

In this research, there were more male respondents than female, however, the distribution was fair with 54.8% and 45.2% respectively, indicating a fair distribution in terms of gender in the responses. The majority of the respondents were between the ages of (20-30) which is within the age bracket (youth) under investigation. In terms of education level, the distribution ranged from no formal education, primary, secondary and tertiary with the majority falling between primary and secondary education.

Majority of the respondents were single and the main occupation of the respondents had (62.9%) recording farming as their main occupation as shown in table 4.1. This, therefore, implies that the sample can be used to adequately draw inferences on the study objectives as the respondents are mainly youth farmers within Kakamega County. In terms of youth involvement in agricultural value chains, the researcher found out that across the value chain youth are mainly involved as final consumers, transporters and processors. Youth involvement in terms of ownership of processing plants was low 26% as wholesalers and retailers were also low.

Youth involvement in production, input supply of seeds, fertilizer and chemicals was above average as shown in table 4.2. In general, youth are mainly consumers and work in processing plants. This is a worrying trend since the sample was drawn from youth farmers whose involvement in agricultural value chains should be higher than the listed percentages. Generally, youth involvement across the value chains remains relatively low.

5.2.1 Access to land and involvement in agriculture value chains

On access to land, the researcher found out that youth access to land is a big challenge. It was realized that 93% of the youth do not own land. In addition, 87% and 93% respectively do not acquire land either through buying or leasing respectively. It was realized as reported by 96% of the respondents that the land is under the head of the family. Youth reported that they do not have user rights over land with 86% affirming that. Young women are worst hit with the challenge of access to as 93% cannot access land even through inheritance.

On the other hand, 71% of the respondents believe that youth access to land will lead to increased agricultural productivity as 66% believe that youth decision making on land will lead to agricultural productivity as shown in table 4.3. In terms of the relationship between access to land and land use management, it was realized that there is a strong positive correlation between youth not owning land and failure to acquire either through leasing and buying and their involvement in final consumption as illustrated in table 4.4. There was a negative correlation between youth access to land and their involvement in production, input supply, distribution, processing wholesaling and retailing. There was a weak positive correlation between youth access to land involvement in the transport of agricultural products.

This indicates that limited access to land has different influences across different sectors of the agricultural value chain. Limited access to land indicates that youth become predominant consumers of agricultural products they do not produce. Limited access to land has little influence on transportation of agricultural produce as youth in Kakamega turn to boda boda due to lack of land and become very useful, in transportation of the produce to the market this is in agreement with Gichimu & Njeru (2014) who found out that access to land in Kenya leads to low productivity and low participation by the youth in the agricultural value chain. It is also in agreement with the Weberian theory that states that to impart change in society, youth need access to wealth, power and prestige. Land is an important aspect of wealth and also it portrays prestige and power.

When youth have limited access to land it affects their involvement in primary production, input supply, distribution, wholesale and retail activities leading to low involvement by the youth in agricultural value chains in Kakamega County as shown in table 4.4.

5.2.2 Access to financial services and involvement in agriculture value chains

In terms of access to finance the study found out that to access loan money, youth require a title deed as illustrated by 83.2% of the respondents. This shows that there is a relationship between land ownership and access to financial resources for farming. It was also noted that loan money when taken by other household members is not used for purchase of the farm inputs. Further, 52.2% of the youth reported that the repayment rates for the loan are high. The study found out that family property is lost if the loan money is not repaid. Majority of the youth also noted that they do not have access to money lending facilities. In general access to finance is a big challenge to youth farmers in Kakamega county. This is in agreement with Gichimu & Njeru (2014) who found out that lack of collateral inhibits many youths from accessing money lending facilities.

On the other hand, the study found out that youth access to money for farming will lead to improved agricultural productivity. Further 59% of the respondents asserted that youth ability to make decisions on how to spend money will lead to improved agricultural productivity. As illustrated in table 4.5. The study found out that limited access to financial resources has a strong positive correlation to their involvement in final consumption. There is a weak positive correlation between access to finance and involvement in transportation. As they seek to get their livelihood from bodaboda business.

There was a negative correlation between limited access to finance and production, input supply, distribution, processing, wholesaling and retailing as shown in table 4.6. There is a strong negative correlation between access to finance and youth involvement in wholesaling. This illustrates that to be involved in retailing and wholesale of agricultural products, access to financial resources is very critical. This signifies that the low involvement of youth in these sections across the value chain can be attributed to their lack of financial resources. This agrees with Afande et. al (2015) who noted that limited access to finance limits youth engagement in agriculture production in Kenya. It is also in agreement with the Weberian theory that states that to impart change in society, youth need access to wealth, power and prestige.

In general, the low involvement by youth in agricultural value chains in Kakamega county can be attributed to their limited access to financial resources and the high repayment rates of the loans as well as the diversion of money meant for agricultural production to school fees and other family

needs. This is in agreement with Kerubo (2019) who noted that the family head receives loan for agricultural products, but it is diverted to other family needs such as school fees.

5.2.3 Access to information services and involvement in agriculture value chains

The study found out that youth farmers do not get frequent and adequate information or extension services as asserted by 89% of the respondents. Further, 71% of the respondents noted that youth are not involved in planning for extension service. Youth participation in extension meeting was realized to be at 48%. In addition 82.1% of the respondents noted that they are not aware and consequently unable to access agriculturally based Information Communication Technologies. However, it was noted that youth ask specific type for extension service. Majority of the youth noted that extension service does not meet their needs since they are not well coordinated as shown in table 4.7. This is in agreement with Ali (2017) who found out that the farmer to extension agent ratio in Kenya is low leading to a majority of farmers being left out in the extension service delivery.

On the other hand, the respondents noted that extension services if well-coordinated can lead to improved quality and agricultural productivity. They also noted that access to extension service will help them improve their farming with a majority asserting the importance of extension service on agricultural productivity. In general, extension service to the youth in Kakamega is limited while it has the potential to stir agricultural productivity in the county it well coordinated and executed.

In terms of the relationship between access to information service and youth involvement in agricultural value chain in Kakamega county, the study found out that, there was huge variation in terms of the responses across the value chain as shown in table 4.8. There is a negative correlation between access to extension services among the youth and their involvement in production, input supply of chemical seeds and fertilizers, transportation, processing, wholesaling, retailing and final consumption. Unlike the other two factors namely access to land and finance, limited access to information services seems to affect all sections of the agricultural value chain. This underscores the importance of access to information service for improved agricultural productivity. This is in agreement with Kising'u (2016) who found out that access to information service affects youth involvement in agricultural value chains.

In general, there is limited access to information service among the youth in Kakamega County. This, in turn, affects their involvement in the agricultural value chain. Youth involvement in the value chain can be enhanced with improved access to information services.



5.3 Conclusions

The study sought to assess the relationship between access to agricultural resources and their influence on youth involvement in agricultural value chains in Kakamega county. In line with this objective, the study found out that there is limited involvement by youth in the agricultural value chain in Kakamega county especially in production, input supply of fertilizers, chemicals and seeds, ownership of processing plants, wholesaling and retailing. However, in some sections of the value chain such as transportation and consumption, youth are involved to a great extent.

Access to land for agricultural productivity among the youth in Kakamega County is limited. Since youth do not own land and they find it difficult to purchase or lease land. Land inheritance is a challenge as youth achieve land inheritance age when they are adult. Older men are unwilling to surrender the land to the young people. Young women are worst hit by this as it is difficult for them to access land. This limited access to land leads to low involvement by youth in the agricultural value chain, as youth who have an interest in farming lack where to practice the farming and have to resolve into other sectors to seek a livelihood. Youth access to land and land use management has the potential to spur agricultural productivity in Kakamega County if well utilized.

Access to finance for agricultural productivity among the youth in Kakamega County is limited. Stringent measure and control to access loan money make it difficult for youth to access finance for agricultural productivity. Institutions that offer finance without collateral also charge high interest rates on the loans that makes it difficult for youth to replay and end having their family property being lost. The government initiated a way to help youth access credit through the Youth Enterprise Fund, many young people are yet to benefit from it while the majority are also not aware of the opportunity. Stringent measures for youth to access the fund makes it difficult for youth seeking the credit to access it. Although a percentage of youth have joined self-help groups to facilitate access to credit, uptake of bank loans is slow among youth due to rigidity of the process as well as collateral requirements which the youth may not be able to provide. There is a relationship between access to financial resources and youth involvement in agricultural value chains in Kakamega county since, the limited access to financial resources had led to low involvement by the youth in agricultural value chains in Kakamega county. Even for youth how

have access to land they lack finance to invest in it. Youth involvement in agriculture in Kakamega can be enhanced with improved access to financial resources.

Access to information services among the youth in Kakamega county is limited. Lack of involvement of youth in planning for extension service greatly affects this. Lack of appropriate extension techniques and modern technologies dissemination in Kakamega county has greatly affected youth involvement. Although a number of youth have aspiration to join agribusiness lack of crucial information and inability to access agricultural extension services impedes them.

There is a relationship between access to information services among the youth and their involvement in agricultural value chains. For the few youths who have land and financial resources, they lack the information on where to invest in the value chain. Improved access to information services among the youth will lead to enhanced involvement by the youth across the agricultural value chains.

According to FAO (2015), 20-30% of the total agricultural output could be raised by reducing inequalities. Also, if we fail to reduce the inequalities and increasing the proportion of youth agriculturalist, farming would be low restraining growth and output and indirectly hindering the performance of the Agricultural Value Chains. The agribusiness sector could be a potential source of gainful employment for the many underemployed and unemployed young people. The findings here, show that; if the youth had the same control, accessibility, and access to land, extension services and financial services as others in the society greater productivity would be realized.

There is an opportunity to develop agricultural productivity as a result of increasing yields and consequently increased income from agribusiness. However, these increases can be realized if access to critical resources such as land, finance and information is enhanced to the youth.

5.4 Recommendations

This section covers the researcher's recommendations to policy, various stakeholders, for daily practice and suggestions for further research based on the study objective, the result findings and discussions.

5.4.1 Policy

On matters of land, the government should strengthen and align legal with customary practices. Women and men of all ages must be incorporated in the process. The government should ensure that land ownership policy is implemented. Further, the government can identify large land tracts of land and allow youth or youth groups who are interested in farming to be given for production and livelihood and charges deducted at final harvest.

The government should have in place policies that will enhance access to financial resources among the youth. Enhanced support to other sections of the value chain such as retail, input supply and processing is necessary. Stringent measures should be developed by the government to knock out of the market financial institutions that offer excessive high interest rates on loans. Government supported loans such as Youth Enterprise Fund and Agricultural Finance Cooperation, should scrap off the requirement of ownership of land for investment in other sections of the value chain except for primary production.

It is necessary to develop a policy that will ensure youth equitably access information services through extension. Youth should be involved in planning for extension services as well as the older generation. The structure of extension service delivery should be amended to incorporate specific needs that the youth require.

5.4.2 Stakeholder specific

Financial institutions should be encouraged to target youth to ensure the availability of financial services which favour the youth. Youth Enterprise Development Fund and Uwezo Fund should review its stringent policies to enable ease of access to finance. Agricultural Finance Cooperation should identify a product that favour the youth in agribusiness. The products need to be published and well known in the remote areas.

Using the findings in this study, donors in the agriculture sector can know which segments of the value chain and what resources to employ to the youth to drive productivity in Kakamega county.

5.4.3 Practice

In households, the beneficiaries, both male and female smallholder farmers should adopt farming as a family business where youth are adequately incorporated. The household leader should plan and manage family land for agricultural maximization. There is a need to facilitate land ownership among the young people in order to attract them into farming.

In addition, there is a need to train youth on relevant and timely agricultural innovations and methods of utilizing technologies. Method such as, holding shows on agricultural fields, will be key in making information accessible for free.

5.4.4 Literature

The study contains critical empirical results on youth involvement in the agricultural value chain in Kakamega county. This information is useful in formulating policies and principles of youth engagement in agriculture in Kakamega county. Further, it contains empirical data on the relationship between access to resources and youth involvement in the agricultural value chain. The recommendations herein are important for driving transformation for the agricultural sector.

5.5 Suggestions for Further research

- i. To assess the relationship of resource distribution and youth involvement in agricultural value chains in other counties in Kenya.
- ii. To determine the effect of youth involvement in agriculture on productivity.
- iii. To assess the impact of youth employment in agriculture in Kenya.
- iv. To assess the relationship of resource distribution and youth involvement in specific crop/animal value chains.

REFERENCES

- Abbink, J. (2011). 'Land to the foreigners': economic, legal, and socio-cultural aspects of new land acquisition schemes in Ethiopia. *Journal of Contemporary African Studies*, 29(4), 513-535.
- Abdul Aziz Abdullah & Norhlilmahin Naem Suleiman, (2013). Factors that Influence the Interest of Youths in Agricultural Entrepreneurship. *International Journal of Business and Social Sciences*. Vol. 4 (3).
- Abebe, A. (2020). The Key Challenges of Youth in Ethiopia. *Journal of Agricultural Economics*, 6(1), 684-688.
- Adekunle, O. A., Adefalu, L., Oladipo, F. O., Adisa, R., & Fatoye, A. D. (2010). *Constraints to Youths' involvement in Agricultural Production in Kwara State, Nigeria* (Vol. 13).
- Afande, F., Maina, W., & Maina, M. (2015). Youth engagement in agriculture in Kenya: Challenges and prospects. *Journal of Culture, Society and Development*, 7, 4-19.
- Ali, A. e. E. S. (2017). The challenges facing poverty alleviation and financial inclusion in North-East Kenya Province (NEKP). *International Journal of Social Economics*, 44(12), 2208-2223.
- Amare, M., Mariara, J., Oostendorp, R., & Pradhan, M. (2019). The impact of smallholder farmers' participation in avocado export markets on the labor market, farm yields, sales prices, and incomes in Kenya. *Land Use Policy*, 88, 104168.
- Amegnaglo, C. J., & Soglo, Y. Y. (2019). Land Ownership, Youth and Agricultural Performance Among Maize Farmers in Republic of Benin. *Journal of Land and Rural Studies*, 7(2), 141-151.
- Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2018). *Introduction to research in education*: Cengage Learning.
- Bergman Lodin, J., Tegbaru, A., Bullock, R., Degrande, A., Nkengla, L. W., & Gaya, H. I. (2019). Gendered mobilities and immobilities: Women's and men's capacities for agricultural innovation in Kenya and Nigeria. *Gender, Place & Culture*, 26(12), 1759-1783.
- Bezu, S., & Holden, S. (2014). Are rural youth in Ethiopia abandoning agriculture? *World Development*, 64, 259-272.
- Blumberg, R. L., & Coleman, M. T. (1989). A theoretical look at the gender balance of power in the American couple. *Journal of family issues*, 10(2), 225-250.

- Boye, S. R., & Kaarhus, R. (2011). Competing claims and contested boundaries: legitimating land rights in Isiolo District, northern Kenya. *Africa Spectrum*, 99-124.
- Bryman, A. (2016). *Social research methods*: Oxford university press.
- Cárdenas, M., De Hoyos, R., & Székely, M. (2015). Out-of-school and out-of-work youth in Latin America: A persistent problem in a decade of prosperity. *Economía*, 1-40.
- Charles, L., Loice, M., Joel, C., & Samwel, K. C. (2012). Youth Enterprise Development Fund (Yedf) and Growth of Enterprise at Constituency Level in Kenya. *European Journal of Economics, Finance and Administrative Sciences*, 54.
- Charoenratana, S., & Shinohara, C. (2018). Rural farmers in an unequal world: Land rights and food security for sustainable well-being. *Land Use Policy*, 78, 185-194.
- Chepkoech, K. L., A. Kurgat, and P. I. Omboto. "Effects of awareness among youth on financial services access from microfinance institutions in Nairobi County, Kenya." *Academic Research Insight Journal* 1, no. 1 (2019): 81-99. [le at SSRN 3523201](https://www.ssrn.com/sol3/papers.cfm?abstract_id=3523201).
- Connelly, L. M. (2014). Ethical considerations in research studies. *Medsurg Nursing*, 23(1), 54.
- Constitution, K. (2010). Government printer. Kenya: Nairobi.
- Cotula, L. (2013). The international political economy of the global land rush: A critical appraisal of trends, scale, geography and drivers. In *The New Enclosures: Critical Perspectives on Corporate Land Deals* (pp. 43-74). Routledge.
- Cumiskey, L., Hoang, T., Suzuki, S., Pettigrew, C., & Herrgård, M. M. (2015). Youth participation at the Third UN World Conference on disaster risk reduction. *International Journal of Disaster Risk Science*, 6(2), 150-163.
- Dankelman, I., & Davidson, J. (2013). *Women and the Environment in the Third World: Alliance for the Future*: Routledge.
- Dumont, A. M., Gasselin, P., & Baret, P. V. (2020). Transitions in agriculture: Three frameworks highlighting coexistence between a new agroecological configuration and an old, organic and conventional configuration of vegetable production in Wallonia (Belgium). *Geoforum*, 108, 98-109.
- Domeher, D., & Abdulai, R. (2012). Land registration, credit and agricultural investment in Africa. *Agricultural Finance Review*, 72(1), 87-103.
- Eckert, E., Turner, E., & Sallah, J. A. Y. (2019). *Youth Rural-Urban Migration in Bungoma, Kenya: Implications for the Agricultural Workforce*. RTI Press, 9983.

- Ehebrecht, D., Heinrichs, D., & Lenz, B. (2018). Motorcycle-taxis in sub-Saharan Africa: Current knowledge, implications for the debate on “informal” transport and research needs. *Journal of Transport Geography*, 69, 242-256.
- Fairbairn, M. (2013). Indirect dispossession: Domestic power imbalances and foreign access to land in Mozambique. *Development and change*, 44(2), 335-356.
- FAO. (2013). *FAO Statistical Yearbook: World Food and Agriculture*: FAO.
- FAO, I., & UNICEF. (2015). WFP. The state of food insecurity in the world.
- FAO, I. (2011). WFP, “The State of Food Insecurity in the World: How does international price volatility affect domestic economies and food security?”. Food and Agriculture Organization of the United Nations, 99.
- Ferreira, R. J., Buttell, F., & Ferreira, S. (2015). Ethical considerations for conducting disaster research with vulnerable populations. *Journal of Social Work Values and Ethics*, 12(1), 29-40.
- Filmer, D., Fox, L., Brooks, K., Goyal, A., Mengistae, T., Premand, P., . . . Zorya, S. (2014). Overview: Youth Employment in Sub-Saharan Africa. In.
- Fischer, E., & Qaim, M. (2012). Gender, agricultural commercialization, and collective action in Kenya. *Food Security*, 4(3), 441-453.
- Fletschner, D. and Kenney, L. (2011) Rural women’s access to financial services credit, savings. United Nations, 2010 – 2011.
- Fox, L., Senbet, L. W., & Simbanegavi, W. (2016). Youth employment in Sub-Saharan Africa: challenges, constraints and opportunities. *Journal of African Economies*, 25(suppl_1), i3-i15.
- Gachuhi, L., & Awuor, E. (2019). Strategic Management Practices and Sustainability of SME’s Agribusiness in Kenya: A Survey of Githunguri Sub County. *Journal of Agriculture*, 3(1), 21-42.
- Gichimu, B. M., & Njeru, L. K. (2014). Influence of access to land and finances on Kenyan Youth Participation in Agriculture: A Review.
- Green, O. J., & Kisimbii, J. (2020). Determinants of the Implementation of Youth Projects for Sustainable Peace: A Case of Tana River County, Kenya. *Journal of Entrepreneurship & Project Management*, 4(2), 1-21

- Grinnell Jr, R. M., & Unrau, Y. A. (2018). *Social work research and evaluation: Foundations of evidence-based practice*. Oxford University Press.
- Herbel, D., Rocchigiani, M., & Ferrier, C. (2015). The role of the social and organisational capital in agricultural co-operatives' development Practical lessons from the CUMA movement. *Journal of Co-operative Organization and Management*, 3(1), 24-31.
- Irungu, K., Mbugua, D., & Muia, J. (2015). Information and Communication Technologies (ICTs) attract youth into profitable agriculture in Kenya. *East African Agricultural and Forestry Journal*, 81(1), 24-33.
- Issa, A. G., & Kiruthu, F. (2019). Effect of youth enterprise development fund on the performance of youth enterprises in Marsabit County, Kenya. *International Academic Journal of Law and Society*, 1(2), 138-164.
- Jayne, T. S., Chamberlin, J., & Headey, D. D. (2014). Land pressures, the evolution of farming systems, and development strategies in Africa: A synthesis. *Food Policy*, 48, 1-17.
- Kaburi, S. N., Omari, A., Sewe, T., Mobegi, V., & Kombo, A. (2017). Entrepreneurship challenges in developing economies: A case of Kenyan Economy.
- Kakamega County. (2017). *County Integrated Development Plan 2017-2022*. Kakamega: Kakamega County.
- Kangai, E. Mburu, J. and Nyikal, R. (2011) Incentives and Constraints of Financing Mechanisms for Compliance to Global GAP Standards among Smallholder Horticultural Farmers in Kenya. Presented in AGRO 2011 Biennial Conference, College of Agriculture and Veterinary Sciences, University of Nairobi, Kenya, 26th - 28th September, 2011.
- Kenya National Bureau of Statistics. (2019). 2019 Kenya Population and Housing Census Volume I: Population by County and Sub County.
- Kenya National Bureau of Statistics. (2019). 2019 Kenya population and housing census Vol. IV: Distribution of Population by Socio Economic Characteristics.
- Kerubo, M. (2019). Effects Gender Inequalities on Agricultural Value chains in Uasin Gishu County.
- Kidido, J. K., & Bugri, J. T. (2020). Youth Access to Agricultural Land from Peri-urban and Rural Perspective: A Study of Techiman Traditional Area in Ghana. *Journal of Land and Rural Studies*, 8(1), 37-56.

- Kijima, Y., & Tabetando, R. (2020). Efficiency and equity of rural land markets and the impact on income: Evidence in Kenya and Uganda from 2003 to 2015. *Land Use Policy*, 91, 104416.
- Kimani, A. W., Nyang'anga, H. T., & Mburu, J. I. (2019). Assessing the Status of Social Media Familiarity among Smallholder Farmers: A Case Study of Thika, Kiambu Kenya. *International Journal of Agricultural Extension*, 7(1), 13-20.
- Kimani, D., Karanja, S., Ngure, K., & Mwalili, S. (2020). Multi-level challenges and opportunities in providing antiretroviral treatment to adolescents in Kenya. *AIDS care*, 1-4.
- Kising'u, J. M. (2016). Factors Influencing Youth Participation In Agricultural Value Chain Projects In Kenya: A Case of Kathiani Sub-County, Machakos County, Kenya. Kenya. Nairobi, Kenya: University of Nairobi.
- KNBS (2020) *Kenya Economic Survey Report, 2020. KNBS.*
- Korankye, B. A., Frempong, L. N., & Isaac, A. (2019). The Nexus Between and Enhancement of Youth's Involvement in Agriculture: The Case of Eastern Region, Ghana. *Nexus*, 9(10).
- Kumar, M. N., & Philip, H. (2019). Information and Communication Technology Utilization Pattern and Determining Factors of Knowledge and Skill Gain among Rural Youths—An Analysis. *Environment and Ecology*, 37(3B), 966-970.
- Macharia, J. M., Chui, M. M., & Edabu, P. (2020). INSTITUTIONAL FINANCIAL RESOURCE DYNAMICS AND TOTAL QUALITY MANAGEMENT ACHIEVEMENT IN TECHNICAL INSTITUTIONS IN KENYA. *African Journal of Education and Practice*, 5(1), 49-60.
- Mibey, M. C. (2015). Factors influencing youth involvement in agribusiness projects in Bomet Central Sub-county, Kenya.
- Michalscheck, M., Groot, J. C., Fischer, G., & Tittonell, P. (2020). Land use decisions: By whom and to whose benefit? A serious game to uncover dynamics in farm land allocation at household level in Northern Ghana. *Land Use Policy*, 91, 104325.
- Mohamud, H. A., & Ndede, F. (2019). Youth Enterprise Development Funds Services and Youth Empowerment in Wajir County, Kenya. *International Journal of Current Aspects*, 3(II), 280-292.
- Mudege, N. N., Mbiri, D., & Mdege, N. (2019). Making the agriculture sector work for youth: A tool to promote young men and women's engagement in growing root, tuber and banana crops.

- Muhoma, R. A. (2014). Factors influencing youth employment through involvement in the milk value chain: a case of Rongai/Nakuru sub-counties, in Nakuru county Kenya (Doctoral dissertation, University of Nairobi,).
- Musa, S. F. P. D. (2020). A Study on Youth Aspiration and Perception of Agriculture and Its Policy Implications. In Handbook of Research on Agricultural Policy, Rural Development, and Entrepreneurship in Contemporary Economies (pp. 441-453). IGI Global.
- Mwaura, G. M. (2017). Just farming? Neoliberal subjectivities and agricultural livelihoods among educated youth in Kenya. *Development and Change*, 48(6), 1310-1335.
- Mwaura, G., Odame, H., & Atela, M. (2018). An Apprenticeship Policy Framework on Youth Employment Creation in Agriculture and Agro-Processing in Kenya.
- Mwithalii, J. K., & Were, S. (2019). DRIVERS OF SUSTAINABILITY OF YOUTH ENTERPRISE DEVELOPMENT FUNDED PROJECTS IN KENYA: A CASE OF JUJA CONSTITUENCY. *International Journal of Project Management*, 2(3). *Insight Journal* 1, no. 1 (2019): 81-99.
- Naamwintome, B. A., & Bagson, E. (2013). Youth in agriculture: Prospects and challenges in the Sissala area of Ghana. *Net Journal of Agricultural Science*, 1(2), 60-68.
- Nagarajan, G., & McNulty, M. (2015). Microfinance amid conflict: Taking stock of available literature. Accelerated Microenterprise Advancement Project. Washington, DC: USAID.
- Nasr-Allah, A., Gasparatos, A., Karanja, A., Dompreeh, E. B., Murphy, S., Rossignoli, C. M., ... & Karisa, H. C. (2020). Employment generation in the Egyptian aquaculture value chain: implications for meeting the Sustainable Development Goals (SDGs). *Aquaculture*, 734940.
- Njenga, P. K., Mugo, F., & Opiyo, R. (2011). *Youth and women empowerment through agriculture in Kenya: VSO Jitolee*.
- Njeru, L. K., Gichimu, B. M., Lopokoiyit, M. C., & Mwangi, J. G. (2015). Influence of Kenyan Youth's Perception towards Agriculture and Necessary Interventions; a Review. *Asian Journal of Agricultural Extension, Economics & Sociology*, 40-45.
- Njeru, L. K., Gichimu, B. M., Lopokoiyit, M. C., & Mwangi, J. G. (2015). Influence of Kenyan Youth's Perception towards Agriculture and Necessary Interventions; a Review.
- Novak, A. (2014). Anonymity, confidentiality, privacy, and identity: The ties that bind and break in communication research. *Review of communication*, 14(1), 36-48.

- Nyangweso, A. N., & Wambua, P. (2019). Business Support Services and Growth of Youth Owned Enterprises Benefiting From Uwezo Fund in Kitui County, Kenya. *International Journal of Current Aspects*, 3(II), 26-40
- Oduor, F. O., Boedecker, J., Kennedy, G., & Termote, C. (2019). Exploring agrobiodiversity for nutrition: Household on-farm agrobiodiversity is associated with improved quality of diet of young children in Vihiga, Kenya. *PloS one*, 14(8).
- Okello, J. J., Ofwona-Adera, E., Mbatia, O. L., & Okello, R. M. (2010). Using ICT to integrate smallholder farmers into agricultural value Chain: The case of DrumNet project in Kenya. *International Journal of ICT Research and Development in Africa (IJICTRDA)*, 1(1), 23-37.
- Oluoko-Odingo, A. A., & Mutisya, E. (2019). The Enterprise of Waste management among urban youth for sustainable development in Kenya. *Journal of Sustainability, Environment and Peace*, 1(2), 45-51.
- Ombogo, J. O. (2017). Food Security Problems in Various income Groups of Kakamega County. *J Nutr Health Food Eng*, 7(1), 00228.
- Osti, A., van t Land, J., Magwegwe, D., Peereboom, A., van Oord, J., & Dusart, T. (2015). The future of youth in agricultural value chains in Ethiopia and Kenya.
- Paroda, R. S. (2019). Motivating and Attracting Youth in Agriculture. *LS: International Journal of Life Sciences*, 8(3), 149-156.
- Raza, M. H., Khan, G. A., Shahbaz, B., & Saleem, M. F. (2020). Effectiveness of information and communication technologies as information source among farmers in Pakistan. *Pakistan Journal of Agricultural Sciences*, 57(1).
- Ronner, E., Abdulai, R., & Njoki, P. (2019). Participatory identification of agricultural transformation pathways in Kitui County, Kenya: Task 3.3: Participatory development of alternative agricultural transformation pathways (WUR). STEP-UP.
- Sakketa, T., & Gerber, N. (2017). Rural Shadow Wages and Youth Agricultural Labor Supply in Ethiopia: Evidence from Farm Panel Data.
- Sala, S. M., Jakinda, D., Nzuma, J., & Mureithi, S. (2019). Understanding the Key Drivers of Land use and Livelihood Dynamics in the Drylands of Kenya: The Case of Fodder Production in Isiolo County.

- Samah, B. A. (2015). Potential benefits of ICT for youth agro-based entrepreneurs in Malaysia. *Journal of Applied Sciences*, 15(3), 411-414.
- Samuel, G. M., Mukulu, E., & Odhiambo, R. (2019). Influence of Access to Entrepreneurial Finance and Performance of Coffee Smallholders' Micro and Small Agribusinesses in Murang'a County, Kenya. *Journal of Entrepreneurship & Project Management*, 3(2), 17-34.
- Sen, A. (1986). Food, economics and entitlement. *Lloyds Bank Review*.
- Soosay, C., Fearne, A., & Dent, B. (2012). Sustainable value chain analysis—a case study of Oxford Landing from “vine to dine”. *Supply Chain Management: An International Journal*, 17(1), 68-77.
- Twumasi, M. A., Jiang, Y., & Acheampong, M. O. (2019). Capital and credit constraints in the engagement of youth in Ghanaian agriculture. *Agricultural Finance Review*.
- Wallerstein, I. (2011). *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century* (Vol. 1): Univ of California Press.
- Weber, M. (1978). *Economy and society: An outline of interpretive sociology* (Vol. 1): Univ of California Press.
- World Bank. (2011). *Engendering Development Through Gender Equality in Rights, Resources and Voice*. New York: Oxford University Press.
- Yamane, T. (1973). *Statistics: An introductory analysis*.
- Yami, M., Feleke, S., Abdoulaye, T., Alene, A. D., Bamba, Z., & Manyong, V. (2019). African rural youth engagement in agribusiness: achievements, limitations, and lessons. *Sustainability*, 11(1), 185.

APPENDICES

Appendix 1: Letter to the respondent

Dear Respondent,

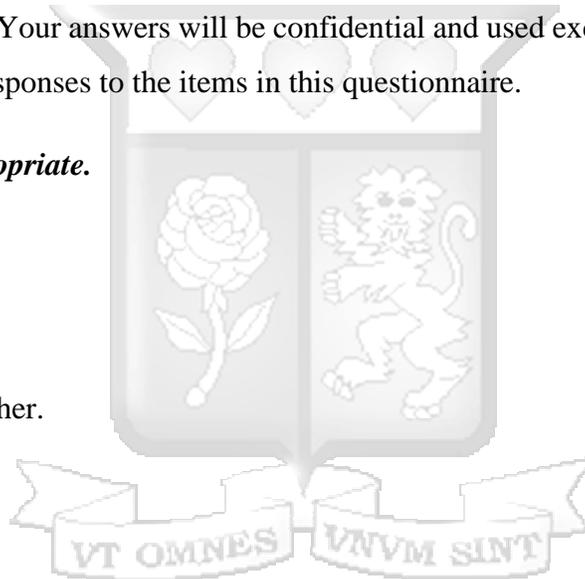
Am a student at Strathmore University Business School Pursuing Master of Management in Agribusiness. Am undertaking a study titled: **“Assessing the relationship between resource access and youth involvement in Agricultural Value chains in Kakamega County, Kenya”** as part of my post graduate degree requirements. You have been identified as one of the respondents for this study. You do not have to give your name. The findings of this study will be purely for academic purposes only. Your answers will be confidential and used exclusively for this research. Kindly provide honest responses to the items in this questionnaire.

Directions: Tick as appropriate.

Thank you,

Yours Faithfully,

Jeremiah Rogito-Researcher.



Appendix 2: Questionnaire

Instructions

1. Please answer all the questions in all sections of the questionnaire.
2. Tick where you agree.
3. Kindly share your honest opinions regarding the questions in the questionnaire.

SECTION A: GENERAL INFORMATION

1. Sex 1) Male 2) Female
2. Age (years) 1) 15 – 20 2) 20 – 30 3) 30+
3. Marital status
 1) Single 2) Married 3) other (specify)
4. Level of education?
 1) No formal education 2) Primary 3) Secondary 4) Post- Secondary
5. Main occupation
 1) Business 2) Employed 3) Farming 4). Other (specify)

SECTION B: YOUTH INVOLVEMENT IN AGRICULTURAL VALUE CHAINS

1. Please answer all the questions in all sections of the questionnaire.
 2. Tick where you agree.
 3. Kindly share your honest opinions regarding the questions in the questionnaire.
6. The following agricultural activities are done by? **(Tick one)**

Activity	Never	Small extent	Large extent	Always
Producers Are youth involved in agricultural production				
Input Suppliers Are youth involved as suppliers of fertilizers				
Are youth involved as suppliers of seeds				
Are youth involved as suppliers of chemicals				
Transporters Are youth involved as transporters of agro products				

Distributors Are youth involved as distributors of agro products				
Processors Do youth own agricultural processing plants Are youth involved as processors of agricultural produce				
Whole Sellers Are youth involved are wholesalers of agricultural produce				
Retailers Are youth involved as retailers of agro products				
Final Consumers Youth consume products drawn from the farm				

SECTION C: ACCESS TO LAND IN KAKAMEGA COUNTY

Key: SD-Strongly Disagree, D-disagree, A-Agree, SA- Strongly Agree

1. Please answer all the questions in all sections of the questionnaire.
2. Tick where you agree.
3. Kindly share your honest opinions regarding the questions in the questionnaire.

(Please tick one where you agree)

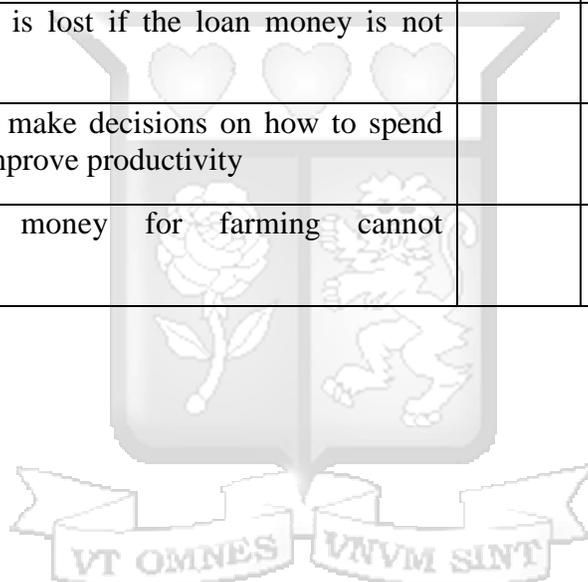
	SD	D	A	SA
1. Youth do not own land				
2. Youth do not acquire land through buying				
3. Youth do not acquire land through leasing				
4. Young women do not acquire land through Inheritance				
5. Youth do not have user rights over the land				
6. The land is under the name of head of the family				
7. Youth access to land will not enhance productivity				
8. Society has no influence on how land is allocated in the family				
9. Youth decision making over land will not enhance productivity				

SECTION D: YOUTH ACCESS TO FINANCIAL SERVICES IN KAKAMEGA COUNTY

Key: SD-Strongly Disagree, D-disagree, A-Agree, SA- Strongly Agree

(Please tick one where you agree)

	SD	D	A	SA
1. You require a title deed to access loan money,				
2. You do not access to money lending facilities				
3. The repayment rates are high				
4. Loan money is not used to buy fertilizers				
5. Family property is lost if the loan money is not repaid back				
6. Youth ability to make decisions on how to spend money cannot improve productivity				
7. Youth access money for farming cannot productivity				



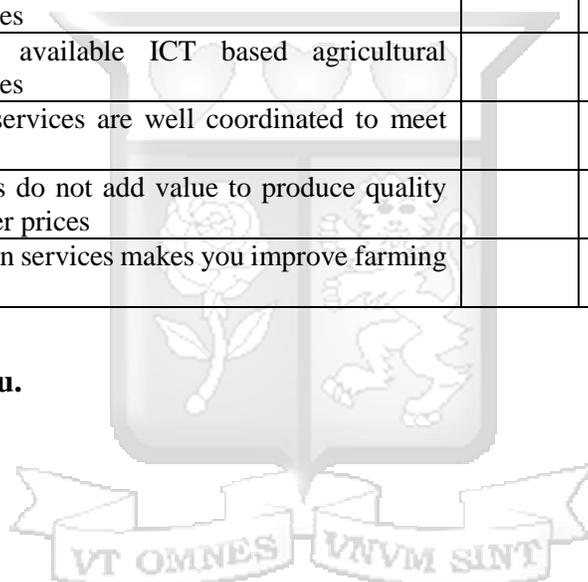
SECTION E: YOUTH ACCESS TO INFORMATION SERVICES IN KAKAMEGA COUNTY.

Key: SD-Strongly Disagree, D-disagree, A-Agree, SA- Strongly Agree

(Please tick one where you agree)

	SD	D	A	SA
1. You do not receive frequent extension services as youth farmers				
2. Planning of extension services involves youth				
3. Youth always participate in extension meetings				
4. Youth ask for specific extension/information services				
5. The information services address your needs				
6. You are aware of the available ICT based agricultural information services				
7. You access the available ICT based agricultural information services				
8. The information services are well coordinated to meet your needs				
9. Extension services do not add value to produce quality and therefore better prices				
10. Access to extension services makes you improve farming skills				

Thank you.



Appendix 3: Respondent Consent form

Respondent consent form

Jeremiah Rogito from Strathmore University Business School requests you to participate in a research study. If you have any concerns or questions, please feel free to contact 0701337622

Purpose of the study

It is to evaluate the relationship between resource access and involvement in agribusiness value chains among youth farmers in Kakamega County.

Procedure

Kindly fill the Questionnaire, to participate in this study.

Potential Risks

There are no potential discomforts or risks to participants.

Payment for participation

Your participation in this study will have no monetary benefits attached.

Confidentiality

Any identifying information that is obtained in this study will ensure every effort is made to ensure confidentiality

Participation

You can choose to be in the study or not. You may also refuse to answer any questions you don't want to answer.

Withdrawal and Rights of Research participant

In volunteering to be part of the study, you may withdraw without consequences any time and discontinue participation without any penalty.

Signature of Research participant

I agree to participate in this study. I have read the information provided for the study as described herein. I have been given a copy of this form.

Signature: _____ Name of Participant: _____ Date _____

Appendix 4: Strathmore ethics approval



22nd October 2019

Jeremiah Rogito
jeremiah.rogito@strathmore.edu

Dear Mr Rogito,

RE: Assessing the relationship between resource distribution and youth involvement in agricultural value chains in Kakamega County, Kenya

This is to inform you that SU-IERC has reviewed and **approved** your above research proposal. Your application approval number is **SU-IERC0537/19**. The approval period is **22nd October, 2019 to 21st October, 2020**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,


for: Dr Virginia Gichuru,
Secretary; SU-IERC

Ce: Prof Fred Were,
Chairperson; SU-IERC



Appendix 5: NACOSTI Research Authorization

Republic of Kenya
National Commission for Science, Technology and Innovation

Ref No: **995237** Date of Issue: **24/October/2019**

RESEARCH LICENSE



This is to Certify that Mr. Jeremiah Rogito of Strathmore University, has been licensed to conduct research in Kakamega on the topic: **ASSESSING THE RELATIONSHIP BETWEEN RESOURCE DISTRIBUTION AND YOUTH INVOLVEMENT IN AGRICULTURAL VALUE CHAINS IN KAKAMEGA COUNTY, KENYA** for the period ending : **24/October/2020**.

License No: **NACOSTI/P/19/2413**

995237
Applicant Identification Number

[Signature]
Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION

Verification QR Code



NOTE: This is a computer generated License. To verify the authenticity of this document,
Scan the QR Code using QR scanner application.

Appendix 6: Research Authorization, Kakamega County Commissioner

REPUBLIC OF KENYA



**THE PRESIDENCY
MINISTRY OF INTERIOR & CO-ORDINATION OF
NATIONAL GOVERNMENT**

Office Mobile No: 0707 085260
Email: cckakamega12@yahoo.com

When replying please quote

Ref No: ED/12/1/VOL.V/25

COUNTY COMMISSIONER
KAKAMEGA COUNTY
P O BOX 43-50100
KAKAMEGA.

Date: 01/11/2019

**JEREMIAH ROGITO
STRATHMORE UNIVERSITY**

RE: RESEARCH AUTHORIZATION

Following your authorization vide letter Ref: NACOSTI/P/19/2413 dated 24th October, 2019 by NACOSTI to undertake research on "*ASSESSING THE RELATIONSHIP BETWEEN RESOURCE DISTRIBUTION AND YOUTH INVOLVEMENT IN AGRICULTURAL VALUE CHAINS IN KAKAMEGA COUNTY, KENYA*". I am pleased to inform you that you have been authorized to carry out the research on the same.

 COUNTY COMMISSIONER
KAKAMEGA COUNTY

**P. K. MARACHI
FOR: COUNTY COMMISSIONER
KAKAMEGA COUNTY**

Appendix 7: Research Authorization, Kakamega County Governor

REPUBLIC OF KENYA
COUNTY GOVERNMENT OF KAKAMEGA



OFFICE OF THE GOVERNOR
COUNTY SECRETARY AND HEAD OF PUBLIC SERVICE

Telephone: 056-31850/31852/31853
Website: www.kakamega.go.ke
E-mail: countysecretary@kakamega.go.ke
When replying please Quote
REF NO:CG/KOCS/GEN CRR/VOL.4/11/01

County Government of Kakamega
P.O. Box 36-50100
KAKAMEGA
Date: 8th November, 2019

Mr. Jeremiah Magoma Rogito
Reg No. SU-IERC0537/19

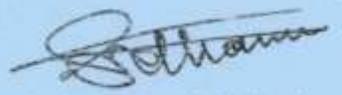
REF: AUTHORITY TO COLLECT RESEARCH DATA

The above subject matter refers.

This is to inform you that you have been granted permission to collect data on Assessing the Relationship between Resource Distribution and Youth Involvement in Agricultural Value Chains in the County Government of Kakamega for your Masters of Management in Agribusiness (MMA) at Strathmore University.

You are therefore required to adhere to ethical standards and the County Government regulations on confidentiality.

Thank you



Jacinta Aluoch Odhiambo (Mrs.)
County Secretary and Head of Public Service

Copy to: H.E the Governor

Appendix 8: Research Authorization, Kakamega County Director Education

REPUBLIC OF KENYA



MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telephone: 056 -30411

Fax: 056 – 31307

E-mail: rceducation2016@gmail.com

When replying please quote our Ref.

County Director of Education

Kakamega County

P. O. BOX 137 - 50100

KAKAMEGA

REF: WP/GA/29/17/VOL.V/60

1st November, 2019

Jeremiah Rogito
Strathmore University
P. O. box 59857
NAIROBI, Kenya

RE: RESEARCH AUTHORIZATION

The above has been granted permission by National Council for Science & Technology vide letter Ref. NACOSTI/P/19/2413/995237 dated 24th October, 2019 to carry out research on **"Assessing the relationship between resource distribution and youth involvement in Agricultural value chains in, Kakamega County, Kenya"** for a period ending 24th October, 2020.

Please accord him any necessary assistance he may require.

COUNTY DIRECTOR OF EDUCATION
KAKAMEGA COUNTY


DICKSON O. OGONYA
COUNTY DIRECTOR OF EDUCATION
KAKAMEGA COUNTY

CC

The Regional Director of Education
WESTERN REGION

Appendix 9: Research Authorization, Kakamega Chief officer Education

**REPUBLIC OF KENYA
COUNTY GOVERNMENT OF KAKAMEGA**



DEPARTMENT OF EDUCATION, SCIENCE AND TECHNOLOGY

Telephone: 0736075087
Email: moest@kakamega.go.ke
Website: www.kakamega.go.ke

The Chief Officer
KAKAMEGA
P.O. Box 36 – 50100

REF: CGK/CO.ED/AD/1 /8

DATE: 1st November, 2019

Jeremiah Rogito
Strathmore University
P.O. Box 59857
NAIROBI, Kenya

RE: RESEARCH AUTHORIZATION

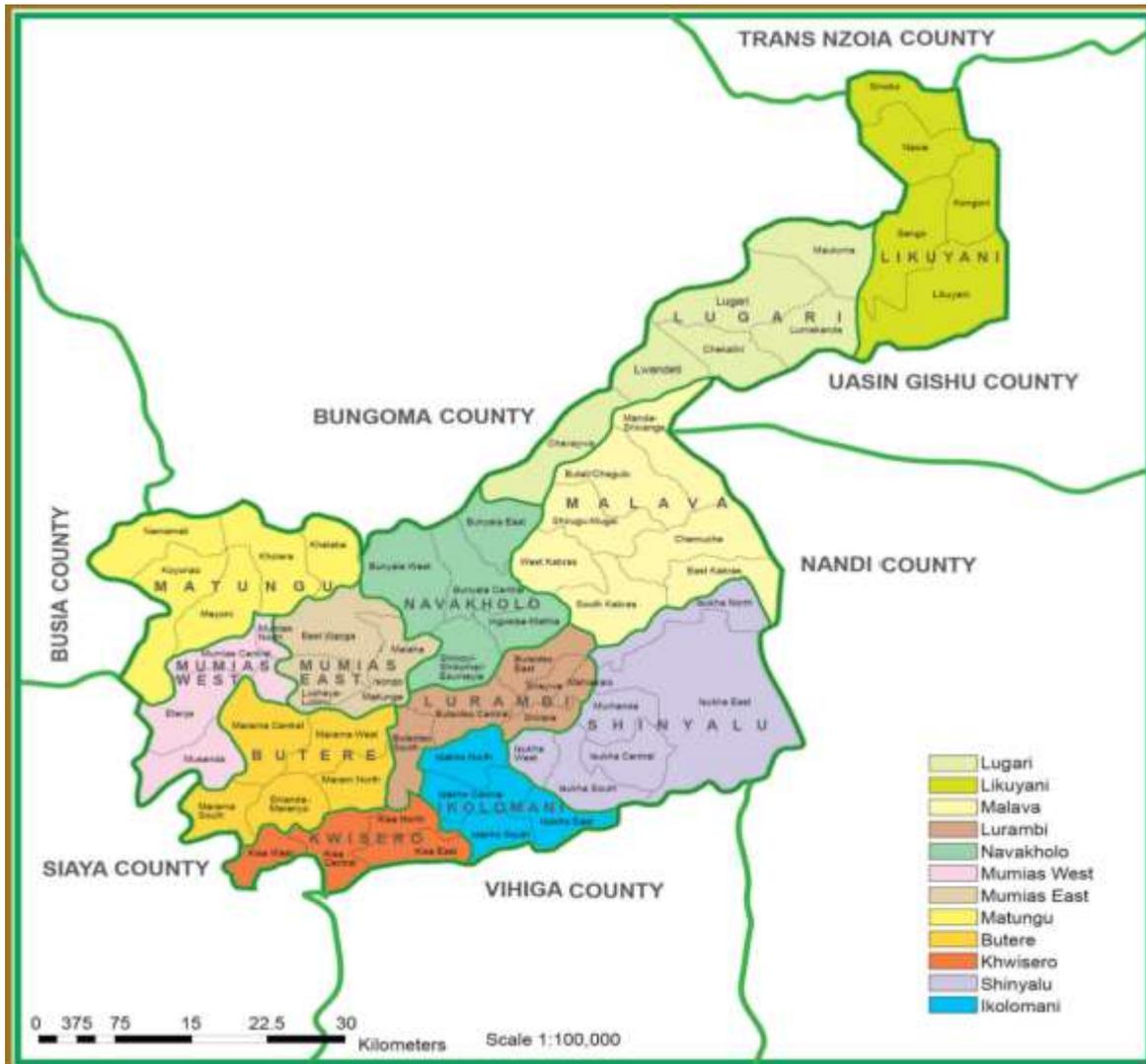
The above has been granted permission by the County Government of Kakamega through the Department of Education Science and Technology to carry out research on **“assessing the relationship between resource distribution and youth involvement in agricultural value chain in Kakamega County, Kenya”** for a period of ending 24th October 2020

Please accord him the necessary assistance he may require.



Dr. Irene A. Ashimani
County Chief Officer, Department Of Education, Science and Technology.
COUNTY GOVERNMENT OF KAKAMEGA

Appendix 10: Map of Kakamega County



Source: information cradle

Appendix 11: Similarity index report

