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RELATIONSHIP BETWEEN ACCESS TO FINANCIAL SERVICES AND YOUTH INVOLVEMENT IN AGRICULTURAL VALUE CHAINS IN KAKAMEGA COUNTY, KENYA

Purpose. Agribusiness offers huge employment potential considering its wide labour absorptive capacity and the youth have a role to play. The study aimed at assessing the relationship between access to financial services and youth involvement in agricultural value chains.

Methodology / approach. The study was conducted in Kakamega County, Kenya. Stratified and simple random sampling was adopted to select 240 respondents. Interviews were conducted using a stratified questionnaire. The collected data were analyzed to generate frequencies, percentages and correlation.

Results. The results revealed that youth involvement across the agricultural value chain is low. Further, there was a strong correlation between access to finance and youth involvement in agricultural value chains. Inadequate access to financial services is a key constrain to agricultural productivity in Kakamega county as it affects all aspects of the value chain except consumption.

Originality / scientific novelty. The study considers the entire agricultural value chain from production to consumption and assesses the relationship between financial resource access and youth involvement at each segment of the value chain. This is significant since the Kenyan population is youthful.

Practical value / implications. The study reveals that there is a strong relationship between access to financial service and youth involvement in the agricultural value chain towards securing their livelihoods. This knowledge is useful to County and national government policymakers and Donor agencies to formulate policies that will enhance youth access to financial resources and consequently their involvement in the Agricultural Value Chain to grow their incomes and improvement of their wellbeing. This will be achieved by knowing what segments of the value chain offer best opportunities for them to thrive in business to guide development of intervention strategies.

Key words: youth involvement, Agricultural Value chains, financial services, Kenya.

Introduction and review of literature. In Kenya, agriculture is commonly done by the older people as the typical age of a Kenyan farmer is 59–60 years; owing to the increase in rural to urban areas migration by Kenyan youth in search of office work. Youth unemployment in Kenya is a growing problem and this reality hits them once they get into the overcrowded stage of unemployment (Kinya and Were, 2019). Access to finance is as essential as access to land in agricultural production, whereby in some cases, 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 enhance the budget of the nation (Sakketa and Gerber, 2017). In Kenya, there is limited youth savings, high unemployment rates, high land prices, and low wages for young people in rural areas which make them unable to practice agriculture (Korankye et al., 2019). Avenues that were created to enhance access to finance such as Youth and Uwezo Funds were not able to achieve their purpose due to limited knowledge among the youth as well as stringent measures to access the loan money (Lagat et al., 2012). The implication is that there are no adequate incentives to stimulate the youth to actively engage in agriculture as a business. The key research question being, what is the relationship between access to financial services and youth involvement in the value chain in Kakamega County, Kenya?

According to Soosay et al. (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 production to final consumption. Many actors take part in a value chain cooperating as the product moves from one point to another. It is reported that players in a value chain while cooperating to reach the final consumer at times cannot tell how they are linked up either forward or backward across the chain (Nasrah-Allah et al., 2020). This study refers 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 et al. (2012).

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 growth 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 the youth as farmers face inequalities in access to resources (Charoenratana and Shinohara, 2018). According to the 2019 Population and Housing Census, the population without a job in the county was 849,497 out of which 134,614 were 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). The high rate at which youth look for credit to join the “boda boda” (motorcycle) business, gambling (Sportpesa, Betway, Elitebet etc). is a worrying trend in the county (Ehebrecht, Heinrichs and Lenz, 2018). Many youths can avoid vices such as crime, gambling, sexual immorality, and substance abuse by involvement in agribusiness (Fox, Senbet and Simbanegavi, 2016).

Access to credit and finance is as essential as access to land. Farming and agribusiness to the formal banking sector is considered a high-risk venture, hence its given little attention (Osti et al., 2015). The youth are perceived as high-risk clients than the elderly 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 as collateral, hence, financing agribusiness is not attractive to the Kenyan banking industry (Kinya and Were, 2019). The inadequate capacity and knowledge to draft business plans by rural youth in Africa and Latin America is also a major drawback (FAO, 2013), thus their business ideas cannot be “bought” by financial institutions. Kenya has a well-structured banking system, but despite this, access to financial services from the bank 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 and Wambua, 2019). Loans as a source of credit are difficult due to lack of essential collateral like land, logbook or savings to get credit from banks and microfinance institutions (Mohamud and Ndede, 2019).

It is further argued that loans are mainly given to youth who have established enterprise or agribusiness rather than start-ups (Nyangweso and Wambua, 2019). 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 (Nyangweso and Wambua, 2019). 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 about the existence of the funds (Issa and Kiruthu, 2019). 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 and 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 (Macharia et al., 2020). Loans are the most ideally available credit to the youth. However, 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). In Kenya, the absence of capital and access to inexpensive credit is mentioned by the young people as the major element behind the limited productivity in agribusiness (Macharia et al., 2020).

Young ladies face added obstacles to obtaining 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 and to make decisions over assets that can be accepted as security in agricultural credit

sources. Kenney and Fletschner (2014) indicated 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 and often do not have security such as land and in some communities, their movement is controlled (Twumasi et al., 2019).

Fletschner and Kenney (2014) stated that in most cases, loans are available only 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 (Twumasi et al., 2019). Without credit, young farmers are not capable of adequately investing in Agriculture. Credit accessibility issues notwithstanding, FAO (2013) reported that young people in rural areas are usually cautious of taking loans because they fear to default. Apart from credit, Fletschner and Kenney (2014) saw that savings are exceptionally important for youth; it assists them to put together assets, plan for their life events and react to crises. Unfortunately, financial service providers have a tendency of focusing more on credit instead of enabling savings. Gachuhi and Awuor (2019) stated that it is only less than half of microfinances in most of the developing world that deal with savings products.

According to a study conducted by Kinya and Were (2019) in Juja Constituency, Kenya, 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. Supporting youth and women with credit is a basic function, however, formal microfinance establishments have failed to achieve it (Kaburi et al., 2012). Despite the extensive efforts by the government and development organization in offering capacity building and funds provision to youth groups and young people in Kakamega, it's not clear how the programmes are coordinated or in the actual sense who receives these grants. Youth in Kenya contributes to 70 % of the overall unemployment in the country; this is because Kenya's economy is at present reliant on agriculture (Kaburi et al., 2012). 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. Some of the problems now emerging within our society are 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 purpose of the article. Agribusiness offers huge employment potential considering its wide labour absorptive capacity and the youth have a role to play. The study aimed at assessing the relationship between access to financial services and youth involvement in agricultural value chains.

Methodology. This study took place in Kakamega County. The target population was youth farmers in Kakamega County. The study was conducted in all the 12 Sub Counties. The main economic activity in the area chosen by the researchers was farming hence all the essential information for the study was obtained (Kakamega

County Development Profile, 2017). Cultural diversity, Ease of access, and population consistency also informed the selection. There is a total of 897 farmer groups in Kakamega County; 146 of these are youth groups, distributed across all the 12 sub-counties. 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 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 Opie (2019) acceptable sample has less than 10 % error; hence for greater accuracy, in getting the minimum sample size, a sampling error of 6.5 % was 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:

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

As a result, 216 respondents is the lowest acceptable number to achieve a 6.5 % sampling error. To increase the level of accuracy a higher number (240) of respondents was identified. Simple random and stratified random sampling technique was used. The population was stratified into sub-counties, therefore, obtaining 12 sub-counties. From this, 240 youths were selected randomly from a database of youth farmers obtained from the social service department to fill the questionnaire. This enabled collection of information from a wide range of people that is vital and relevant (Opie, 2019).

To enhance the quality of study, instrument piloting was done in the neighboring Vihiga County, questionnaires were directed to a random sample of 25 respondents randomly 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. For instrument validity the study 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 Opie (2019), items in the instrument are legal and acceptable when the CVI is 0.7 and above.

$$\text{For this study} \quad \frac{\text{Relevant Items}}{\text{Overall number of items}} = \frac{25}{27} = 0.92$$

A CVI of 0.92 was obtained which is higher than 0.7 hence the instrument is valid. In addition, experts and supervisor's input was sought. Views from an expert in the field was sought to ensure all themes in the objectives were captured. This is in connection with Opie (2019) who indicated that the content validity of an instrument is perfected through specialist rulings.

The study used a structured questionnaire as the primary data collection tool. This was administered face to face to the 240 youth farmers in Kakamega County through the help of two trained research assistants. The questionnaires were collected after filling and data captured digitally for analysis. Descriptive statistics with the help of Eviews7 software were used to analyze collected data. 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 (Opie, 2019).

Results and discussion. Study findings indicate, there were more male respondents than female, however, the distribution was fair with 54.8 % and 45.2 % respectively, with a low standard deviation (0.494) indicating that the sample was fairly even in terms of gender distribution. 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 1.

Table 1

Respondents profile

General Information	Gender	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 Education	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		

Source: author's calculations based on the youth survey, Kakamega County, 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. In terms of main occupation (151), considered farming is their main occupation. With others being employed or doing business and farming as a secondary source of income. This, therefore, implies that the sample can be used to adequately draw inferences on the study objectives within Kakamega County.

The study sought to find out the level of youth involvement across the agricultural value chain. Youth as final consumers had a high percentage of 98.1 % and a low standard deviation (0.227). This indicates that the 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 the 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 though the standard deviation was high (0.945) indicating the response had a huge variation. The study revealed 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 well as wholesalers and retailers. Youth involvement in production, input supply of seeds, fertilizer and chemicals was above average as shown in Table 2.

Table 2

Youth involvement in agricultural value chains

Statement		N	SE	LE	A	%	S.D
Producers	F	45	145	34	16	52	0.769
Youth involvement as producers	%	18.8	60.4	14.2	6.7		
Input Suppliers	F	39	143	34	24	54	0.821
Youth as suppliers of fertilizers	%	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	F	14	63	104	59	71	0.819
Youth as transporters of agro products	%	5.8	26.3	43.3	24.6		
Distributors	F	23	81	103	33	71	0.819
Youth as distributors of agro products	%	9.6	33.8	42.9	13.8		
Processors	F	224	15	1	0	65	0.841
Do youth own processing plants	%	93.3	6.3	0.4	0.0		
Processors	F	34	43	113	50	26	0.273
Youth as processors	%	14.2	17.9	47.1	20.8		
Whole Sellers	F	89	98	45	8	69	0.945
Youth as wholesalers	%	37.1	40.8	18.8	3.3		
Retailers	F	121	89	26	4	47	0.825
Youth as retailers	%	50.4	37.1	10.8	1.7		
Final Consumers	F	0	0	13	227	41	0.742
Youth as consumers	%	0.0	0.0	5.4	94.6		

Note. N – Never; SE – Small Extend; LE – Large Extend; A – Always; S.D – Standard deviation; % – percentage; F – frequency.

Source: author's calculations based on the youth survey, Kakamega County, 2019.

In general, youth are mainly consumers and work in processing plants. This is a worrying trend since the sample was drawn from youth farmers.

From the research, it was noted that to receive bank loan title deed is a requirement indicating there is a relationship between ownership of land and access to finance as confirmed by 214 respondents. The majority of the youth farmers believe that the loan repayment rates are high. Most 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. Most of the youth (199) do not have access to lending facilities a (low standard deviation of 0.503), and this indicates that this cuts across all farmers regardless of the gender or location.

The results indicate that loan access by the youth requires 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 secured 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 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 Njeru et al. (2015) who found out that lack of collateral inhibits many youths from accessing money lending facilities.

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 3.

*Table 3***Youth access to financial resources in Kakamega County**

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 can improve productivity	F	23	99	108	99	86.3	1.011
	%	4.2	9.6	45.0	41.3		
Youth access money improve productivity	F	5	38	95	102	82.1	0.813
	%	2.1	15.8	39.6	42.5		

Note. SD – Strongly Disagree; D – Disagree; A – Agree; SA – Strongly Agree; S.D – Standard deviation; % – percentage; F – frequency.

Source: author's calculations based on the youth survey, Kakamega County, 2019.

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.

The study defined that limited access to financial resources has a strong positive correlation to their involvement in final consumption. There was a weak positive correlation between access to finance and involvement in transportation, as they seek to get their livelihood from “bodaboda” transport business. Further, there was a negative correlation between limited access to finance and production, input supply, distribution, processing, wholesaling and retailing as shown in Table 4.

Table 4

Correlation between access to finance and youth involvement in agricultural value chains

Indicators	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: author’s calculations based on the youth survey, Kakamega County, 2019.

There was a strong negative correlation between access to finance and youth involvement in wholesaling. The implication is that to be involved in retailing and wholesale of agricultural products, access to financial resources is very critical. This partly confirms that the low involvement of youth in these sections across the value chain is 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 agricultural production in Kenya. It is also in agreement with the Weberian theory that to impart change in society, youth require wealth, power and prestige.

Conclusions. Access to financial resources for agricultural productivity among the youth in Kakamega County is limited. The study found out that youth access to finance for farming can lead to improved agricultural productivity. Stringent measures make access to loan difficult for youth in agriculture. Institutions that offer

finance without collateral also charge high-interest rates on the loans that make it difficult for youth to repay leading to loss in family property. The Kenyan government initiated a way to help youth access credit through the Youth Enterprise Fund, but many young people are yet to benefit from it while some are also not aware of the opportunity. Although a substantial 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 lack. For youth who have access to land there is a lack of finance to invest in it.

The findings here show that; if the youth had the same control, accessibility, and access 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 finance is enhanced to the youth. Enhanced support to other sections of the value chain such as retail, input supply and processing is necessary.

Based on the findings we, therefore, recommend that:

1. The government should put in place a conducive policy environment that would cushion market financial institutions to offer reasonable interest rates on loans.

2. Youth Enterprise Development Fund and Uwezo Fund should review its stringent policies to enable easy access to finance and publicize the products in the remote areas.

3. Government-supported loans such as Youth Enterprise Fund and Agricultural Finance Cooperation should consider an hybrid system that would accommodate other forms of collateral apart from ownership of land for investment in other sections of the value chain except for primary production.

4. The private sector (banks and micro finance institutions) and government agencies need to be encouraged to have credit products that target the youth to ensure the availability of financial services to them.

The findings from the study form a basis for, donors in the agriculture sector to know which segments of the value chain and what resources are needed by the youth to drive productivity in Kakamega county, Kenya. Further research has to be conducted on specific major crops and livestock products in Kakamega County, to assess how youth are involved in the specific value chains. To enable strengthen government policy on issues of youth access to finance it is necessary to conduct the similar studies in all the counties in Kenya.

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