

INFLUENCE OF YOUTH ACCESS TO FARM PRODUCTS MARKETS ON THEIR PARTICIPATION IN AGRICULTURE IN KAJIADO NORTH SUB-COUNTY

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ABSTRACT: *Agriculture in Kenya has great untapped potential for providing employment opportunities for youth that would enable them exploit their creativity, economic innovation and access to agricultural product markets in order to spur faster national economic growth. Reducing cereal importation in Kenya through local investment and expanding of markets for agricultural products can effectively create youth employment. A number of youth took part in agriculture in Kajiado North Sub- County with maize being the most preferred crop while poultry keeping the most preferred livestock activity by youth. The influence of youth access to markets for agricultural products on their participation in agriculture in Kajiado North Sub-County was poorly understood and hence the need for this study, which used a cross-sectional design to collect data from 397 randomly, selected youth and 22 youth and agricultural officers. Content validity of the youth and agricultural officers' questionnaires was ascertained by extension experts while reliability was determined through a pilot test involving 30 respondents. The reliability coefficient were 0.86 α and 0.80 α respectively, which were above the 0.70 threshold for acceptable reliability. The results showed a statistically significant positive relationship ($r=.330$, $p=.01$) between youth access to markets and their participation in agriculture. It also showed that youth access to markets influenced their participation in agriculture with 57.4% of the respondents indicating that poor infrastructures and limited knowledge on market prices reduced their access to markets for agricultural commodities. Youth with easy access to markets for their products had higher participation rates in agricultural activities than those with minimal access to markets. The government and other actors should support formation of organizations that can give youth the necessary bargaining power to interact on equal terms with other market actors in order to reduce transaction costs through economies of scale when buying inputs and selling produce.*

KEYWORDS: Agriculture, Employment, Gender, Market, Youth, Farm Products

INTRODUCTION

Africa has 200 million youth 15-24 years old who form over 20% of the population (World Bank (2013). Three quarters of them lack the skills and resources necessary for gainful employment and live on less than US\$2 a day. In Kenya 78.31% of the population is below 35 years and beyond secondary school and over 92% lack vocational training (KNBS, 2013). Rural youth constitute a key demographic domain of poverty as they transit from childhood to adulthood and from dependency on others to independence through self-employment (Montez, 2009; Njeru & Gichimu, 2014; World Bank, 2014). The youth often face challenges of inadequate employment opportunities, appropriate vocational training; inadequate of access to reliable markets, agricultural production resources and limited support from farmer networks (FAO, 2013; World Bank, 2014).

However, new and expanding local and international markets for agricultural products have sprang up in Kenya as a result of rapid urbanization and improvements in internet communication technologies, although many of the youth face difficulties accessing them (Leavy & Hossain 2014). Kenya, for instance, imports 33% of wheat and over 50% of the rice used in the country. Investment to reduce importation of cereals can be effectively used to create employment for the youth through enhancing youth access to the local markets (FAO, 2013). In 2003, 96% of maize and 93% of cotton was sourced from non- Common Markets for East AND South Africa (COMESA) countries while intra COMESA trade in milk was only 9% and due to under-utilization, processing plants operated at only 50% capacity producing only 20% processed milk in the country (IFAD, 2014; Wanjiku, Guthiga, Karugia, Massawe & Wambua, 2012). Kenya can produce a wide range of temperate, tropical and subtropical products and has large, expanding markets for traditional products like maize and other cereals, beef and dairy products, tea, coffee and pyrethrum (Leavy & Hossain, 2014). There is also an enormous yet under-exploited global demand for horticultural products and emerging livestock such as ostrich, guinea fowl, crocodile, frogs and butterflies, and emerging crops such as gum Arabic, assorted resins and essential oils, and aloe (Poulton & Kanyinga (2013; Wanjiku *et al.*, 2012). Market opportunities for agricultural produce have been opening up for bio-fuels from sugar cane, maize, millet, sorghum, and other oil-bearing seeds through the youth can enhance sources of their livelihoods (FAO, 2013).

However, marketing chains are long, non-transparent, inefficient, slow and unresponsive to the needs of producers who are predominantly youth. They are often characterized by low value addition, which translates to low prices, fewer job opportunities and low incomes (Poulton & Kanyinga, 2013; World Bank, 2014). The situation is worse for perishable products such as milk fruits and vegetables. Common problems in the value chains include lack of direct market access by producers, low farm gate prices and high transportation and other transaction costs, fragmented, value chain for smallholders that are mainly based on contract farming and often skewed against small scale producers (Mkulima Young, 2013; Purvis, 2014).

Even in nations where agriculture contributes little to GDP, its potential to provide solutions to challenges of youth unemployment by being an engine of inclusive growth is still widely recognized if undertaken commercially and sustainably (AEO, 2011; Aksoy, 2012; IFAD, 2014; World Bank, 2014).

Youth migration to urban areas in search of employment opportunities can be minimized by enhancing their access to market information, production technologies and financing support as well as changing their belief that agriculture and rural areas are for people who cannot make a livelihood elsewhere (ILO 2012). It can be minimized by rebranding agriculture as the new unexplored frontier for growth in business opportunities and developing sufficient financial packages tailored to the diverse conditions of the sector and enterprises of choice (Purvis, 2014; Swarts & Aliber 2013). The support should be sufficient enough to engage the youth fully. More youth groups could engage in the business of collecting, processing as well as marketing agricultural products. It can further be minimized by improving youth absorption of modern technologies and access to affordable credit, dependable markets for agricultural commodities and good infrastructure in form of roads, electricity, cold storage facilities, irrigation and water storage and processing technologies (Brooks, Amy, Goyal & Zorya, 2013; Mkulima Young, 2013). Without credit young farmers are unable to sufficiently invest in Agriculture (Swarts & Aliber, 2013). Livestock extension in ASALs like some parts of Kajiado North Sub-County

has been particularly underfinanced, which has affected pastoral youth's participation in agriculture (Swarts & Aliber, 2013; World Bank, 2014)

Better production techniques and market-oriented strategies help farmers generate a sustainable source of income while supplying agricultural produce to satisfy the world's increasing demand for food. To ensure agricultural sector's future viability, tackle rural poverty and generate employment opportunities, one has to equip the youth who are the farmers of tomorrow with the right tools (Brooks *et al.*, 2013). Transforming and strengthening agricultural value chain development activities and processes as well as markets and marketing systems in Kajiado North Sub County in ways that attract the youth would improve their participation in agriculture (FAO, 2013). In addition, providing positive market conditions and recognizing youth as important actors in value chain development can motivate them to increase their participation in agriculture thereby ensuring food security, health and well-being of the society (FAO, 2013). This study investigated the influence of youth access to markets for agricultural products on their participation in agriculture in Kajiado North Sub-County.

Statement of the Problem

About 60% of Kenya's 45 million people are in the age bracket of 15-35 and constitute 45% of the labour force. These young people work mainly in agriculture, which supports 75% of the population and contributes 29.3% to the GDP (CIA World Facts, 2014). By 2015, the World Bank (2015) envisioned that young people would be 75% of Kenya's population. The challenges posed by this tremendous youth population increase to Kenya's economy include rising unemployment and high dependence ratio due to inflation and rising cost of labour, raw materials, food, fuel and other basic commodities that had been triggered by the global economic crisis. About 80% of Kenya's labour force is engaged in agriculture but Government efforts to make agriculture more attractive and profitable to youth have not yielded positive results. Rather there was a noticeable increase in the migration of the youth to urban centres looking for alternative and better employment (ILO 2012; Poulton & Kanyinga, 2013). Furthermore, although the youth hold Kenya's future due to their enormous energy and aspirations, most of them considered agriculture to be less attractive compared to other professions. Reducing youth unemployment through participation in agriculture is a challenge in Kenya since the average age of a farmer is about 60 years and at this age bracket, farmers are less venturesome, averse to risks and hesitant to adapt innovations making it difficult to transform agriculture and agricultural related activities from subsistence to income generating activities. Although youth engagement in agriculture could greatly reduce youth unemployment in the country, 70% youth in Kajiado North Sub-County were still economically inactive. The challenge facing Kajiado North Sub-County was that influence of access to market for agricultural products and youth participation in agriculture were poorly understood and documented. This made it difficult for Kenyan leaders and their development partners to formulate innovative strategies for enhancing youth access to markets for agricultural products to ensure youth self-reliance and increased youth employment rates in the Sub-County. This study has provided information that the Government and other leaders can use to make informed decision on how to improve youth access to markets.

Purpose of the Study

The study sought to determine the influence of youth access to markets for agricultural products on their participation in agriculture in Kajiado North Sub County.

Research Hypothesis

There is no statistically significant relationship between youth access to market for agricultural products and their participation in agriculture in Kajiado North Sub-County.

RESEARCH METHODOLOGY

The Location of the Study

The study was carried out in Kajiado North Sub-County in Kajiado County which is situated north of Nairobi City. It covers an area of 6,344.9 km² and had large population of youth. The Sub-County comprises of four Wards namely Ngong 718.1 km², Ongata Rongai 16.5 km², Olorua 2640.3 km² and Ngimurunya 2980 km² and had a total population of 300,525 persons (KNBS, 2013). A report by KNBS (2013) indicated that the population for the youth in the Sub-County by then was 100,525 comprising of 49,269 males and 51,256 females with over 70% of the youth being economically inactive with high dependency rate.

Target Population

The population of the study is youth in Kenya while the accessible population for the study was the youth from the four Wards of Kajiado North Sub-County, which were Ngaimurunya, Olorua, Ngong and Ongata Rongai. The Sub-County comprised of 81,231 households with a total of 100,525 youth comprising of 49,269 males and 51,256 females youth.

Research Design

A cross-sectional design was used to collect data from 397 randomly selected youths and 22 youths and agricultural officers. This design provides self-reported facts about respondents, their feelings, attitudes, opinions and habits and is excellent for collecting original data (Kombo & Tromp, 2007; Kothari, 2008). It enables the researcher to study a large population with only a portion of it being used to provide the required data (Kothari, 2008).

Sampling Procedures and Sample Size

Kajiado North Sub-County was sampled purposively based on its uniqueness in terms of its potentiality in agriculture, its close proximity to Nairobi city an outlet market for the agricultural products. Saturated sampling was done to all the fifteen agricultural officers and the six youth officers in Kajiado North Sub-County since they were few, it was appropriate to sample all. Based on the sampling table provided by Yamane (1992) and adopted by Israel (1992), 397 youths were randomly sampled, stratified into male and female populations and by use of proportional to size sampling, a suitable sample size for male and female youth in each Ward was arrived at.

Instrumentation and Data Collection Procedures

A self-administered questionnaire was used to elicit information on the influence of youth

access to market for agricultural produce on their participation in agriculture. The questionnaires' content validity was ascertained by five extension experts while a pilot involving 30 youths was conducted to determine its reliability, which was 0.83 α . This was above the 0.70 minimum acceptable for educational research at a significance level of 0.05 set *a priori*.

Data Analysis

Data analysis involved qualitative and quantitative methods. In the qualitative data analysis, emerging trends were categorized based on research objectives. Quantitative data were coded and analysed using the Statistical Package for Social Sciences (SPSS). The Pearson Product Moment Correlation Coefficient (PPMCC) was used to determine the strength of the relationship between youth access to market for agricultural product and their participation in agriculture selected variables while frequency tables and percentages were used to summarize and present quantitative data.

RESULTS

Most of the youth (63.4%) were 26-35 years while the rest (36.6%) were 18-25 years implying that agriculture in the Sub-County had attracted very few young people between 18 and 20. While 7.3% had no formal education, it was only 12.1% of the youth that had acquired university education as indicated in Table 1.

Table 1: Academic Qualifications of the Respondents

Academic level	Frequency	Per cent
Never went to School	29	7.3
Primary (class 1-8)	81	20.4
Secondary	132	33.2
College (Diploma and certificate)	107	27.0
University	48	12.1
Total	397	100.0

Youth Challenges in Accessing Markets

Many of the youth (57.4%) were facing challenges of poor infrastructure and limited knowledge on market prices; 20.2% have literacy and ICT skills; 15.9% have limited entrepreneurial skills while the rest (6.5%) have limited skills on gender issues, price fluctuations and value addition as indicated in Table 2.

Table 2: Challenges Faced by Youth while Accessing Markets

Challenges	Frequency	Percentage
Poor infrastructures	114	28.7
Limited knowledge on market prices	114	28.7
Limited entrepreneurial skills	63	15.9
Price fluctuation	2	0.5
Limited skills on value addition	14	3.5
Gender issues	10	2.5
Limited ICT skills and literacy	80	20.2
Total	397	100.0

These findings concurs with the work of FAO (2013), which indicated that rural youth frequently lack information on markets and prices and that young rural women face additional difficulties in accessing markets due to social and cultural restrictions. They also strengthen the findings of IFAD (2014), which indicated that a characteristic feature of Kenya's agriculture is the dominance of primary production with little on-farm and off-farm processing and little efforts to improve the quality and shelf life of produce. Lack of information on markets, prices, ICT skills and value addition translate into low prices, fewer job opportunities and low incomes for young farmers. The situation is more hopeless when dealing with perishable produce such as milk, fruits and vegetables, which are mainly dominated by youth (Poulton & Kanyinga, 2013).

The findings are also consistent with the work of Brooks, Amy, Goyal & Zorya (2013) who found that poor infrastructure in terms of roads, electricity, cold storage facilities, irrigation, water storage and processing technologies impede marketing of agricultural commodities reducing young farmers' ability to increase production.

Accessibility of the youth to Market Outlets

Youth access to markets was measured using a Likert Scale six-indicator items: (i) unfavourable market structure, (ii) lack of information on market prices, (iii) lack of bargaining power, (iv) lack access to market, (v) female have problem in accessing markets, and (vi) Lack of market information.

The respondents were asked to rate these indicators using a 5 point likert scale. Each survey item that formed the 6 variables dealing with access to markets by youth was converted to scores ranging from 1-5 with the most positive response:- strongly agree having a score of 5, agree 4, neutral 3, disagree 2 and strongly disagree 1. Total scores for each item were calculated and the mean, standard error (SE), standard deviation (SD) and range determined as shown in table 3.

Table 3: Indicator Variables for Youth Access to Markets

Indicators	Mean	SE	SD	Range
1. Unfavourable market structure	3.6	0.1	1.3	4
2. Inadequate information on market prices	3.1	0.1	1.0	4
3. Lack organizational bargaining power	3.5	0.1	1.2	4
4. Lack of access to market	4.2	0.0	0.9	4
5. Females have a problem in accessing markets	4.0	0.1	0.9	4
6. Lack of market information	3.3	0.1	1.2	4
Index of youth access to markets	21.5	0.2	4.8	29

N=397

The scores for the six indicator variables were added to create an index of access to markets by the youth. The index had a mean of 21.49 and varied from 5-30. The index's reliability was 0.76 α .

Relationship between Youth Access to Markets for Agricultural Products and their Participation in Agriculture

The Hypothesis number three of this study was stated as: - *There is no statistically significant relationship between youth access to market for agricultural products and their participation in agriculture in Kajiado North Sub-County.*

Correlation analysis using the index of youth access to markets for agricultural products and their participation in agriculture were used to test the hypothesis, the results are given in Table 4.

Table 4: Correlation for Youth Access to Markets and their Participation in Agriculture

Variables	r	p	n
Youth participation in Agriculture	0.330	0.01	397
Youth access to markets			

The results Table 4 of the correlation analysis between the youth access to markets for agricultural products and youth participation in agricultural activities show there is a statistically significant positive relationship ($r=.330$, $p=.01$). We reject the null hypothesis and accept the alternative hypothesis that there is a statistically significant relationship between youth access to markets for agricultural products and their participation in agriculture. The implication is that youth would be able to acquire farm inputs, farm services and to deliver agricultural produce to buyers as a result of market accessibility. This finding agreed with earlier FAO (2012) and Brooks *et al.*, (2013) findings that sustainable market access guaranteed smallholders increased income and reduced poverty. This implies that if youth access to market information on appropriate pricing for their produce, then access to farm inputs could be enhanced which inturn will increase access to farm output and

CONCLUSIONS

There was a statistically significant positive relationship between youth access to markets for agricultural commodities and their participation in agriculture hence it influenced their level of participation in agriculture. Youth experienced difficulties while accessing markets for instance, poor infrastructures and limited knowledge on market prices while accessing markets (cited by 28.7%); limited ICT skills (cited by 20.2%); and limited entrepreneurial skills (cited by 15.9%). Limited skills on value addition, gender issues and price fluctuation during marketing also limited the youth access to viable markets for agricultural commodities. Youth with easy and better market access engaged more in agricultural-related activities such as acquiring farm inputs, farm services and marketing. Market access for agricultural products motivated the youth to increase their farm products, which enabled them to benefit from economies of scale as a result of a higher bargaining power

RECOMMENDATIONS

Based on the conclusions of the study, the researchers recommend as follows

- i. Education and training which are essential for successful youth participation in agriculture should be tailored to the needs of young producers in order to equip them with knowledge and competencies that enable them comply with market requirements, specific skills development and increased confidence.
- ii. Leaders should encourage the youth to specialize on production, processing or marketing to be effective in conducting specific activities along the agricultural product value chain.
- iii. Leaders should encourage the youth to form groups through which they can have better access to markets, increased bargaining power and reduced transaction costs when buying agricultural inputs and selling agricultural produce as a result of economies of scale.
- iv. Leaders should encourage the youth to apply modern ICTs in agriculture as it offers great potential for attracting youth to agriculture, providing up-to-date information, marketing agricultural products, offering training and managing finances for agricultural projects.

Recommendation for Further Research

In order to determine whether the situation is different in other areas, other researchers should replicate the study in order to come up with a more comprehensive program for enhancing youth participation in agriculture in Kenya.

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