

**THE EFFECT OF EDUCATION ON YOUTH EMPLOYMENT IN
KENYA**

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DECLARATION

I declare that this is my original research paper and it has not been done and presented in any institution before for awarding of a degree or any certificate.

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This research paper is submitted to me for examination and awarding of mark as university supervisor:

Dr. Phyllis Machio

Signature í í í í í í í í í í í í í í í í í í . Dateí í í í í í í í í

DEDICATION

I dedicate this work to my dad Moses Elima, my loving mum Jedida Akoth, and my siblings: Abigael, Edna, and Dayton for their support, love and prayers. It is wonderful to have them in my life.

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I start by thanking God Almighty for His grace and the gift of life that has made me achieve this. I appreciate Dr. Phyllis Machio my supervisor for her effective guidance throughout my research period. My sincere appreciation also goes to all my lecturers both in undergraduate and postgraduate who assisted me in laying a solid foundation through my course work. I also appreciate my classmates for their assistance and support special thanks to my good friend, class mate and sister Purity for her relentless support. My sincere appreciation goes to my family especially my loving dad and mum for seeing me through school. Special thanks to my friends Shaddy, Gidy, Ezekiel, Joab and Abigael for their great friendship, prayers and support.

ABBREVIATIONS AND ACRONYMS

CSOs ó Community Based Organizations

GoK ó Government of Kenya

HCT ó Human Capital Theory

ILO ó International Labor Organization

KIHBS ó Kenya Integrated Household Budget Survey

KIPPRA ó Kenya

KKV ó Kazi KwaVijana

KNBS ó Kenya National Bureau of Statistics

KNFJA ó Kenya National Federation of Jua Kali Associations

KYEP ó Kenya Youth Empowerment Project

MFI ó Micro Finance Institutions

NGOs ó Non Governmental Organizations

NSC ó National Steering Committee

NYC ó National Youth Council

NYP ó National Youth Policy

NYS ó National Youth Service

YEDF ó Youth Enterprise Development Fund

ABSTRACT

The global youth unemployment rate is estimated at 12.6 per cent, with about 73 million young people being unemployed (ILO, 2013). In Kenya, it is established that youth unemployment rate has always been higher than total unemployment rate. In 1998/99 youth unemployment rate was 19.4% while total unemployment rate was only 14.6%. In 2005/06, youth unemployment rate was 20.2% higher than total unemployment rate of 12.7%. Existing Literature depicts that education is an important factor in curbing youth unemployment (Becker, 1964). This study's main objective is to determine the effect of educational attainment on youth employment in various types of employment such as wage employment, self employment agriculture and in self employment business. The study uses the multinomial logit model and data from Kenya Integrated Household Budget Survey (KIHBS) of 2005/ 2006 to analyze findings. Findings state that education is an important determinant in employment status of the youth. Youths with no education find it difficult to get employment as compared to those with primary, secondary and tertiary education. The study suggests that the government should develop programs like internships in government ministries; the Kazi Kwa Vijana initiative, Uwezo fund, and the Youth Enterprise Development Fund, to enable the youths get some income to sustain their lives.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The present unemployment problem brings a difficult labour market experience for the youths globally. The International Labour Organization (ILO) estimated the global youth unemployment rate at 12.6 per cent, with about 73 million young people being unemployed (ILO, 2013).

The International Labour Organization (ILO) defines someone who is unemployed as one with the age of 15 years and above and covers three conditions as follows: having no work, where he or she has not had work for not less than one hour in the week of study; is in a position to get employment in a period of two weeks; has looked for work actively in the previous month or have established one starting in the coming three months (ILO, 1982).

In Africa, unemployment continues to be a hindrance to maximum exploitation of human resources in spite of strong growth over the last ten years in the region. Considerable interests are attracted by employment, unemployment and underemployment issues in Kenya. According to the Kenyan Government (GoK, 2006) the growth of the economy has not been adequate to generate sufficient employment opportunity to take in the rising labour force of about half a million every year. The economy only takes in approximately 25 per cent of youth, and 75 per cent are left to suffer unemployment.

Development policy in Kenya focuses on creation of jobs for the youth. The youth attract interest due to their large share of Kenya's population. Individuals aged below 35 years make up around 80 per cent of the population, while the youth aged 15-35 years account for about 37 per cent of the population (KIPPRA, 2013). Working age population in Kenya, are people between 15 and 64 years who are not full time students, and the labour force participation rate is the number of people that are employed or are keenly searching for work. Table 1 shows the percentage distribution of working age population in the period 1998/1999 and 2005/2006.

Table 1: Working Age Population Percentage Distribution, 1998/1999 and 2005/2006

Age cohort	Total (Working age population)	
	1998/1999	2005/2006
15-19	21.75	23.29
20-24	15.41	17.61
25-29	12.82	14.18
30-34	11.44	11.20
Total (15-34)	61.42	66.29
35-39	11.08	8.86
40-44	8.23	7.77
45-49	7.21	6.14
50-54	5.35	4.65
55-59	3.54	3.74
60-64	3.17	2.73
Total (15-64)	55.52	55.68

Source: 1998/1999 and 2005/2006 Labour Force Survey.

Youths had a higher proportion of working age population both in 1998/1999 and 2005/2006. Youth working age population increased from 61.42% to 66.29% between 1998/1999 and 2005/2006 while total working age population only increased from 55.52% to 55.68%.

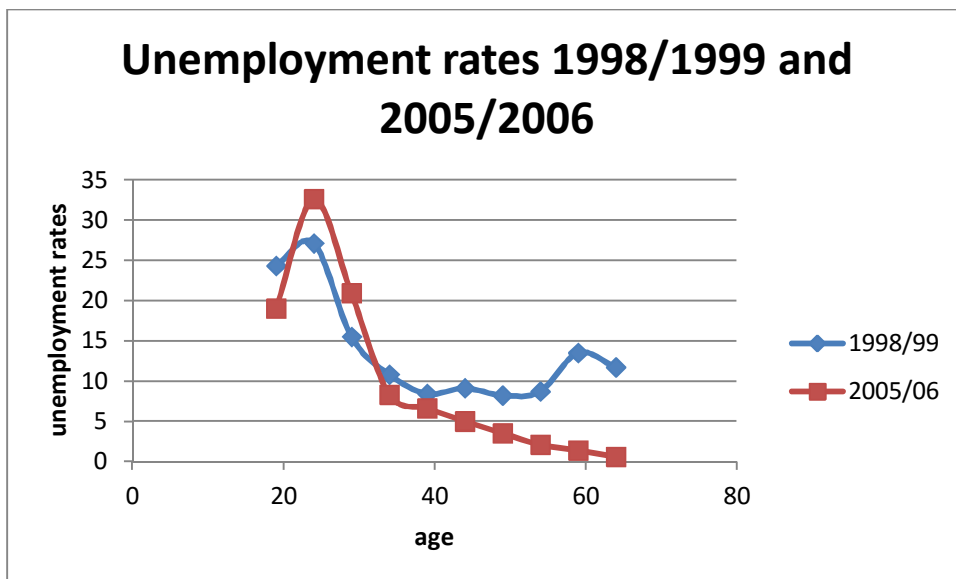
In table 2 we see that between 1998/99 and 2005/06, youth unemployment has always been above total unemployment rate. While in 1998/99 youth unemployment rate was 19.4%, total unemployment rate was only 14.6%. Similarly in 2005/2006 youth unemployment was higher at 20.2% compared to 12.7% for the total population. Unemployment rate for female also remained top than that of male between 1998/1999 and 2005/2006. In figure 1, unemployment increases with age up to around late 20s then starts to decline. It peaks in the mid 20s.

Table 2: Percentage Youth Unemployment Rates in Kenya by Age and Sex (1998/1999 and 2005/2006)

1998/1999				2005/2006		
Age (years)	Total	Male	Female	Total	Male	Female
15 ó 19	24.3	21.8	26.4	19	19.2	18.8
20 ó 24	27.1	19	33.9	32.6	31.1	33.8
25 ó 29	15.5	8.2	21.6	20.9	20.2	21.5
30 ó 34	10.8	4.8	16.8	8.3	8.1	8.5
Av	19.4	13.4	24.7	20.2	19.7	20.7
35 ó 39	8.4	5	11.8	6.6	6.6	6.6
40 ó 44	9.1	7.8	10.6	5	5.6	4.5
45 ó 49	8.2	4.9	12.5	3.5	3.5	3.5
50 ó 54	8.7	6.3	11.1	2.1	2.6	1.7
55 ó 59	13.5	14.2	12.7	1.4	2	0.9
60 ó 64	11.7	7.5	15.7	0.6	1.1	0.2
Av	14.6	9.8	19.3	12.7	11.2	14.3

Source: KNBS (2003 and 2008),

Figure 1: Unemployment rates



1.2 Youth employment policies in Kenya

The new constitution and vision 2030 center on youths, with the aim of improving Kenya's socioeconomic and political environment (Wamuyu, 2010). The youths receive great attention because of the big population, amount of the challenges they face and the position they take during political violence and crime.

In the past, policies and institutions of the public have centered on supplying young people with education and skills, and transforming their behavior, in order to fall in line with satisfactory norms and values in the society. But these approaches have lacked major impact on lives of the many young people facing a lot of challenges such as youths who are orphans, young people infected with HIV/AIDS, youths who are unemployed and uneducated, youths who break the law, and youths who are female (Wamuyu, 2010).

Following the global arrangement that sees youth as important capital to be involved in building the society, unlike looking at them as a secluded group whose assignment is to get into in bad behavior that threatens the society, there are quite a number of employment policies structured by the government of Kenya towards the youth.

1.2.1 Kenya National Youth Policy (NYP)

It was launched in 2006. It gives a wide structure addressing the problems affecting young people through important acts in programmes that deal with development in Kenya. It highlights bad youth policies and programmes, increased population growth, inappropriate and less marketable skills, inadequate resources given to young people as things that affect youths. The policy seeks for establishment of two bodies; an inter-ministerial committee and a National Youth Council (NYC). The former includes people representing related ministries that deal with issues related to young people, with the duty of checking and assessing the young people's activities done by additional actors in the government. The National Youth Policy (NYP) has five principles among them; mainstreaming youth issues which intends to increase how youth issues are seen and to

ensure that they are factored in every sector of national development inside the public and private sectors.

In general, the NYP seeks to promote participation of youth in the processes of democracy and in civic and community affairs. The NYP particularly wishes to inform those who make policies about the meaning of identifying and mainstreaming youth agendas in the building of the nation; supporting and partnering with private individuals on programs that assist young people; creating suitable surroundings for youths to build up their potential; classifying constraints that hold back Kenyan young people from recognizing their potential; and assuring those who are willing to work that they will be employed.

According to the National Youth Policy, the issue of unemployment requires positive steps to open up employment chances for young people. A surrounding that makes it possible for young people to hunt for self-employment is also needed. The government seeks to get involved in several ways, which are: creating joint venture with community based organizations, that focus on youth employment; putting in place community resource centers to help young people get important information on employment; issuing micro-credit services to enable young people to come up with activities that generate income;

The Kenyan education system has been held in charge of failing to pass on suitable skills for facilitating employment and self-employment. The 8-4-4 education system consists of eight years of primary education then four years of secondary education and four years of university education. But a lot of youths end up not completing school, and those who make it to graduate lack sufficient expertise to facilitate employment (GoK, 2006). It is not easy for female students to finish education because of pregnancy together with practices such as marriage at early age and circumcision of young girls. Training institutions in Kenya are not enough, and they do not have needed technology and facilities to get ready youths for the demanding labour market (GoK, 2006). To add on, institutions lack connections with the labour market. The NYP offers to: make it easy to

afford and access education that is quality; support education that is not formal, vocational training and development of life skills; enforce policy where girls who drop out are readmitted back to school; and make connections between institutions of education together with the private sector in research, meaningful education, internship and financing opportunities.

1.2.2 The National Youth Service (NYS)

The NYS came into place in September 1964. Its directive is to prepare youthful citizens in order to work for the country whereby they are employed in errands that are important to the nation. In particular, it is in charge of: training Kenyan young citizens to be disciplined and for professional skills growth; helping the country in errands of public significance; monitoring, providing recruits for the Kenya Armed Forces.

1.2.3 The Youth Enterprise Development Fund (YEDF)

This came up in 8th of December 2006. The YEDF centers on development of enterprise as a major factor for rising chances in the economy for the youth and a means of allowing them to participate in building of the nation. It provides capital to youthful entrepreneurs, provides services for business development, and generate market opportunities that benefit youths who produced goods and services. The YEDF also facilitates youth employment in the labour market both locally and internationally. The operations of the YEDF are decentralized and money is pay out through Micro Finance Institutions, banks, Non Governmental Organizations (NGOs) and Cooperatives, that are all over the country through branches.

The YEDF status report of 2009 brings out successful projects that have been accomplished to lift up youth entrepreneurs.

The challenges facing the fund are: First, it received negative perception because of when it was established. That was the time of the general election in 2007 that divided people politically in many parts of the country. It was seen as a tool for campaigning so that youths can vote for the party in power. Loans in some parts of the country were never

recovered because people believed they were political bribes. Second, there is weak policy framework due to the problem of youth unemployment. Third, no financial mediators and ways loans can be repaid in parts of the country, like in rural areas.

1.2.4 Kenya Youth Empowerment Project (KYEP)

Through credit from the World Bank, KYEP was started in June 2010 so as to facilitate Government efforts to make better youth employment. KYEP has two objectives: to provide young people with employment opportunities that are labour intensive and also to pass on viable skills so as to raise their probability of getting jobs. With KYEP, the initiative *Kazi Kwa vijana* (KKV) was started in 2009 by the government. The initiative was to provide labour intensive opportunities for employment to young people in the rural and urban areas through public works projects.

The Kenya Youth Empowerment Project gets its funding from donors and government. In the financial year of 2010, the Kenyan government allocated Ksh. 6.6 billion which is equivalent to 84 million US dollars. Despite much effort by the government, youth unemployment still remains high.

1.3 Educational attainment of the youth

Education and training are necessary for the youth to be able to access market for labour without many hitches because they raise their level production and chance of being employed. For instance people with no education always have higher rates of unemployment compared to people with primary, secondary and tertiary levels of education (ILO, 2010).

Table 3 shows percentage distribution of working age population by highest school level attained. It shows majority of working age population having completed primary education with the total rate averaging 98.82%. The youths aged 15 to 34 years have an average rate of 99.03% of having completed primary education of which it is a bit higher than the total rate. For secondary education, the rates of completion fluctuate before

starting to decrease at the age of 50 years and above. The total rate of secondary education completion averages at 36.02%. This is slightly lower from the average rate of secondary education completion of the youths aged 15 to 34 years which is 37.4%. The university education completion rates also fluctuate over the years with a total average of 2.05%. This is slightly higher than the youths' completion rate of 1.75%. From this analysis, it is evident that the youths have higher attainment rate of primary and secondary education completion than the total working age population. They however have a lower tertiary education completion rate.

Table 3: Percentage distribution of Working age Population by Highest School level Completed

Age group	None	Pre-School	Primary	Secondary	University
15-19	0.1		99.8	23.7	0.0
20-24	0.1	0.3	99.0	42.2	1.9
25-29	0.1	0.1	99.4	42.0	2.4
30-34		0.1	98.9	41.7	2.7
35-39	0.1	0.1	98.9	42.8	2.8
40-44	0.1	0.4	98.5	40.7	2.3
45-49	0.1	0.6	99.0	41.9	1.5
50-54	0.3	0.3	98.7	33.6	2.1
55-59	0.0	0.5	98.3	28.9	1.5
60-64	0.4	0.5	97.7	22.7	3.3
65+	0.8	0.6	97.6	15.3	1.8

Source: Kenya National Bureau of Statistics (2008)

1.4 Statement of the Problem

Youth unemployment is a serious issue of concern in Kenya. Data shows that the Kenyan economy only absorbs about 25% of youth, leaving 75% out to shoulder the weight of unemployment. It is also evident that the young persons' working age population is higher and the youth unemployment rate has always been above total unemployment rate. Data also shows that the youths have high rates of primary and secondary education completion than the entire working age population, though they have a lower tertiary education completion rate than the general population. Education is supposed to enable the youth enter the labour market successfully and also to make them more productive and make it easy for them to get employment. To what extent does education increase likelihood of employment in various types of employment among the youths in Kenya? Which level of education matters for each type of employment?

1.5 The Study Objectives

The major objective of the study is to determine the effect of educational attainment on youth unemployment in Kenya. Specifically:

- To study the effect of educational attainment on youth employment.
- To suggest policy recommendations.

1.6 Justification of the Study

Information from this study will help policy makers prioritize interventions to reduce unemployment. Specifically this study will shed light on the extent to which formal education affects unemployment. This will help to put weight to Munga et al., (2015) who recommend that the government should focus on skills development in secondary and tertiary education for graduates to match industrial requirements. This study will also add to existing studies on determinants of youth unemployment.

1.7 Organization of the Study

The other parts of the paper are as follows: Chapter 2 reviews the theoretical and empirical literature on youth unemployment. Chapter 3 analyzes the methodology that is used in this study. Chapter 4 is the result findings and discussions. Chapter 5 is the summary conclusions and policy recommendation.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Theoretical and empirical literature on determinants of youth unemployment especially those focusing on education as a determinant of youth unemployment are reviewed in this chapter. Sections 2.2 and 2.3 focus on theoretical and empirical literature respectively.

2.2 Theoretical Literature

In the year 1950s the major factors of production in the economy of the United States of America were known to be physical capital, labour, land and management (Becker 1964). But come the early 1960s, the growth of the economy could not be simply explained using the four traditional factors of production. This is when human capital, a new form of capital that included people's learning capacities, was considered as a factor of production in producing goods and services. Since that time to date, the Human Capital Theory (HCT) has been used to understand decisions made by economic agents like choice of employment and health care.

The theory of human capital emphasizes role played by education and training in reducing unemployment. It precisely depicts formal education as highly instrumental and necessary in improving the productive capacity of a population. Becker (1964) describes schooling as capital among other factors that raise a person's earnings. He compares investment in an individual's education and training to business investments in equipment that they both increase productivity and competitiveness.

High productivity workers are usually more preferred by employers than low productivity workers. Thus it is expected that individuals who have higher education are perceived to be more productive and hence more likely to be employed. Similarly for self employed workers, those with higher education and hence higher productivity are expected to perform better in their businesses than their low productivity counterparts.

2.3 Empirical Studies

Studies in Kenya.

Kamau and Wamuthenya (2013) analyze causes of youths being unemployed in Kenyas urban areas. They use a probit model with cross-sectional data of labour force survey in periods 1986, 1998 and 2005 to estimate the determinants of being unemployed. The findings were that first; clear differences in gender exist in unemployment of youth. On the contrary, unemployment rate of male youth is so low. Second, for both youths who are male and youths who are female, age was found to influence the chances of being unemployed. Third, extra education is important, it increased chance of being employed than being unemployed between 14 to 36 per cent for youths who are female and 0 to 12 per cent for youths who are male. Lastly, male youths who are married are most likely to find work whereas female youths who are married are most likely not to find work.

Kiiru et al (2009) did analyze factors that explain why some young people would be openly unemployed or would be underemployed whereas other young people are in a position to get full employment in Kenya. The study used multinomial logit model with data from the Kenya Integrated Household Budget Survey (KIHBS) of the period 2005 / 2006. Results obtained showed that economic background played a role for youth unemployment. The area that the youths lived either in rural or urban signified for the employment. Female youths compared to male youths were established as likely to be unemployed openly and under employed rather than being employed fully. A slight rise in the educational level of was found to make a youth be unemployed openly than be employed fully.

Zepeda et al (2013) studied Kenya's youth employment challenge. The study analyzed the Kenya Integrated Household Budget Survey data of 2005/2006, and the United Nations Population Statistics of 2011. They found that youth unemployment challenge was significant both in the rural and the urban areas; in the rural areas since youths are many, and in the urban areas due to the high rates. They also found that unemployment did affect young people since they were little up to when they were the age of 28 years, depending on the level of education they had, and their gender. Youths aged between 18

and 24 years seem to face the most difficult unemployment problem, and unemployment faced by females is worse than unemployment faced by males. Youths that lack formal education experience the highest rates of unemployment. But, the most burning unemployment problem for the youths is of persons with primary level and secondary level of education. Rate of unemployment amongst persons with tertiary education was restricted to a little percentage of youths and some age groups. Youths appearing in the least 40 percent of the pyramid of income tend to have consistently higher unemployment rates.

Muiya (2014) did study the nature, challenges and consequences that face unemployment of urban youths in Nairobi. He study used primary and secondary data collected from the youth and reports from the government in Mathare slums, in July 2013. Data was analyzed continuously throughout the study period using field notes taken daily and establishing emerging patterns which were noted and recorded. The results found that majority of young people in Mathare were unemployed because they lacked education and other necessary skills.

Escudero and Maurelo (2013) carried out a study on getting to understand what drives the market for labour in Kenya. They used an econometric model that was time series and data from the period 1990-2011 for Kenya. The study finds out the labour market conditions greatly influence the youths in the labour market. Also the lower youth employment elasticity of 0.4 compared to the general employment elasticity of 0.9 implies that the gains from the growth of overall employment have been absorbed by the adults and not the youths. The study also shows that young females aged (15-24) had 21.1 per cent greater probability of being inactive compared to young males and 26 per cent lesser probability of getting employment compared to 17.1 percent lesser probability for the population of adults. Tertiary education also did play a vital role to explain the gap that existed between young people and adults in getting entrance to the market of labour. The aspects reduced the chance of being inactive with 31 and 8.5 per cent, respectively, and increased the chance of getting work by 24 and 7.7 per cent, respectively. Also the presence of a person who is employed in the household very much

increased the chance of a young person getting work and the chance of becoming entrepreneurial also.

Studies outside Kenya

Msigwa and Kipesha (2013) did study factors that determine unemployment of youths in Tanzania. They used multinomial logistic regression model with data found from Tanzania Integrated labor force survey (ILFS) for the year 2006. The results showed that first, male youths had high probability of being employed above being unemployed than female youths. Second, regarding youths location on their employment status, the youth in urban areas over rural areas were five times likely to be unemployed than being employed. Third, young persons without skills were 23% less probable to be not employed than being employed. Results also showed that youths who had not finished primary school and youths who had finished primary school but did go on with secondary school were less likely to be unemployed than being employed because they engaged in informal employment. Fourth, results showed that not being married, or being married raised the chance that a youth would not be employed than not being unemployed by 67% and 60% respectively.

Guarcello, et al. (2006) used probit model with data from various labour force surveys to estimate youth employment in Ethiopia. The results indicated that probability of employment increased with both age and level of education. They further found high employment in urban than rural areas and more male youths likely to be in employment than female youths.

Baah-Boateng (2013) studied determinants of unemployment in Ghana. He used a probit regression model with cross-sectional datasets from Ghana Living Standards Surveys. The results showed demand factors had a strong effect of on unemployment; demonstrating economic growth had a weak employment generating impact. Empirical study also showed education and gender explained unemployment with youths being highly vulnerable in urban areas. The reservation wage also had an increasing effect on unemployment.

Mlatsheni et al. (2008) studied education and youth unemployment. They used probit model with data from 2001 census and the Cape Area Panel Study (CAPS). The findings were such that colored youths, both male and female were much more likely to find Jobs than African youths. The probit regressions also showed education was important in labor market where those who finish school having good grades are most likely to get into employment than those who leave school with lesser grades.

2.4 Overview of literature review

Based on the literature discussed above, it is possible to find various factors that determine youth unemployment. The theoretical literature brings out education as a necessary factor in improving the productive capacity of a population. Education is seen as investment in human capital. The empirical studies bring out other factors that determine youth unemployment. These are marital status, economic background, whether youths are located in urban or rural areas, gender, age and education level. While various studies have examined determinants of employment in Kenya, including education, these studies do not examine the extent to which the effect of education on employment varies by type of employment. This study will use multinomial logit to study the effect that education has on unemployment as compared to being in wage employment, in self-employment agriculture and in self-employment business among the youth.

CHAPTER THREE: METHODOLOGY

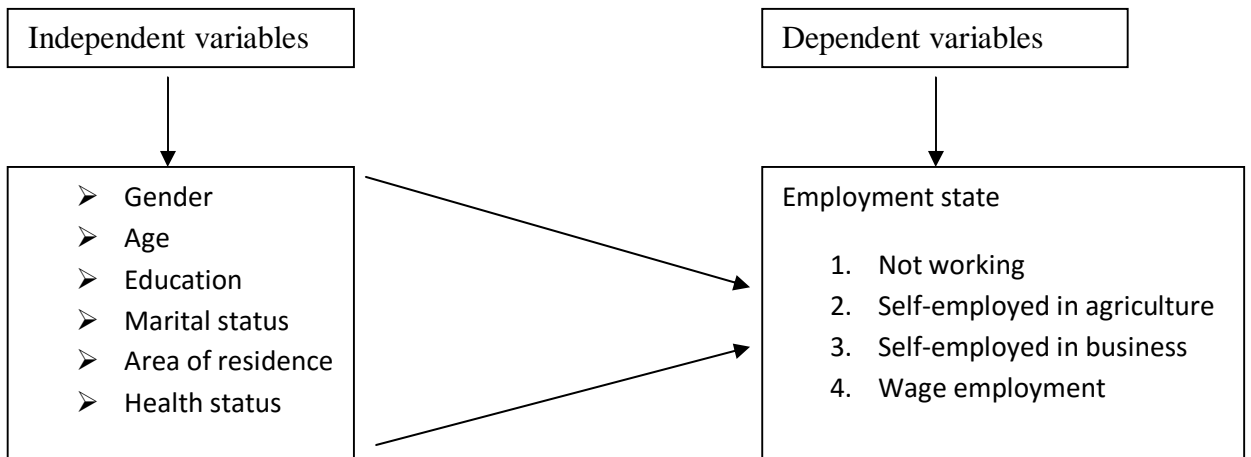
3.0 Introduction

This chapter presents the methods and procedures used in analyzing educational attainment as a determinant of youth unemployment in Kenya. Sections 3.1 and 3.2 present the conceptual framework and model specification respectively, while section 3.3 presents the definition of variables and section 3.4 gives the data source.

3.1 Conceptual framework

The conceptual framework of the study is described in figure 2.

Figure 2: conceptual framework



3.2 Model specification

The study uses Multinomial Logit model since the dependent variable has more than two outcomes. Multinomial logistic regression allows each category of an unordered response variable to be compared to a reference category, providing a number of logistic regression models (Wooldridge, 2002).

$$\frac{\Pr (Y = j)}{\Pr (Y = 1)} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k \dots \dots \dots (1.0)$$

Where j is the identified category of response variables and

Where 1 is the reference category of response variable

The various categories of the dependent variable denoted by j include youths who are unemployed, self-employed in agriculture, self-employed in business and those in wage employment. The state of youths who are unemployed takes the reference category.

X denotes a set of independent variables which are gender, age, education, marital status, area of residence, and health status.

The main focus is to see how the change in X variables affects the probabilities of the dependent variables,

$P(y=j/x)$, $j=0, 1, 2, \dots, J$, $P(y=0/x)$ is found after we get the probabilities for $j=1, \dots, J$.

X being a $1 \times K$ vector, and the multinomial logit model (MNL) has dependent probabilities

$$p_j(x) = \frac{\exp(\beta_j x)}{1 + \sum_{j=1}^J \exp(\beta_j x)}, \quad j=1, \dots, J \quad (1.1)$$

Where β_j is $K \times 1$, $j=1, \dots, J$,

$$p_0(x) = 1 - \sum_{j=1}^J p_j(x) = \frac{1}{1 + \sum_{j=1}^J \exp(\beta_j x)} \quad (1.2)$$

β_j is simply interpreted by

$$\frac{\partial p_j(x)}{\partial \beta_j} = \frac{\partial}{\partial \beta_j} \left(\frac{\exp(\beta_j x)}{1 + \sum_{j=1}^J \exp(\beta_j x)} \right) \quad (1.3)$$

Where $p_j(x)$ shows the independent probability in equation (1.1). Therefore the change in $p_j(x)/p_0(x, \beta)$ is approximately $\beta_{jk} \exp(\beta_j x) x_k$ for continuous x_k .

The log-odds ratio is linear in x : $\log[p_j(x, \beta)/p_0(x, \beta)] = x \beta_j$. this also extends to general j and h : $\log[p_j(x, \beta)/p_h(x, \beta)] = x(\beta_j - \beta_h)$.

Also since $P(y=j \text{ or } y=h/x) = p_j(x)$,

$$P(y=j/y=j \text{ or } y=h, x) = \frac{p_j(x, \beta)}{p_j(x, \beta) + p_h(x, \beta)} = \frac{x(\beta_j - \beta_h)}{1 + \exp(x(\beta_j - \beta_h))}$$

Where $\sigma(\cdot)$ is the logistic function.

The multinomial logit model is estimated using the maximum likelihood method. For each i the conditional log likelihood is given by

$$\ell_i(\beta) = \sum_{j=1}^J \ln \left(\frac{\exp(\beta_j x_i)}{1 + \sum_{j=1}^J \exp(\beta_j x_i)} \right) \quad (1.5)$$

We then estimate β by maximizing $\sum_{i=1}^n \ell_i(\beta)$.

3.3 Definition of variables

In this model the dependent variable takes four categories, whether one is unemployed, self-employed in agriculture, self-employed in business or in wage employment. The

unemployment state of the youth is taken as the reference category. The independent variables are: gender, age, education level, marital status, area of residence and health status.

Gender of youth

This is measured as a dummy variable with value 1 if one is male and 0 otherwise. Female youth are expected to experience high unemployment than male youth. This is because female have high chances of being inactive than males (Escudero and Maurelo, 2013).

Education of youth

This is measured as a dummy variable. Four dummy variables are created with value 1 if one has no education and 0 otherwise, 1 if one has primary education and 0 otherwise, 1 if one has secondary education and 0 otherwise, and 1 if one has tertiary education and 0 otherwise. Education of the youth is expected to reduce the chance of being unemployed because it increases an individual's productivity and hence puts one in a better position to be employed. This is similar to the human capital theory (Becker, 1964).

Age

This is measured in years. Age of an individual is expected to reduce chance of being unemployed. This is because the gains of employment are majorly enjoyed by adults due to their level of experience (Escudero and Maurelo, 2013).

Marital status

This is measured as a dummy with value 1 if one is married and 0 otherwise. Married youths are expected to experience high unemployment rates due to the immobility factor.

Area of residence

This is measured as a dummy with 1 if a youth is living in urban area and 0 otherwise. Youths living in rural areas are expected to have low unemployment rates due to their

ability to engage in farming activities and run small businesses hence being self-employed.

Health status

This is measured as a dummy with value 1 if one faces any form of illness and value 0 otherwise. Health status of the youths is important because illness causes youths to be absent from work or miss on opportunities to get employment.

3.4 Data source

The main data source will be the Kenya Integrated Household Budget Survey (KIHBS) 2005/2006. The KIHBS includes basic demographic information. The survey covered a total of 1,343 randomly selected clusters with a total sample of 13,430 households, stratified from all districts in Kenya. The clusters were sampled from a set of 540 urban clusters and the 1,260 rural clusters. Each cluster comprised of 10 households that were selected with equal probability.

CHAPTER FOUR: RESULT FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the study results. The results are divided into two parts. The first part presents the descriptive statistics and the second part presents the multinomial logit estimations.

4.1 Descriptive Statistics

The statistics show that 40% of the young people had no education, while 34% of the youth had primary level of education, 16% had secondary education and only 10% of the youths had tertiary education. With regards to area of residence, 65% of the youth lived in rural areas while 35% live in urban areas. This is due to the fact that many youths move to urban areas from rural areas in search for paid employment. Data also shows that 22% of the youths reported to have some form of illness. In view of the marital status of the youth, 57% of the youths were single whereas 43% were married. About 23% of the youth were not working. For the youths who were employed, 28% were in wage employment, 33% were self-employed in own or family business and 16% were employed in own or family agricultural holdings. The mean age of the respondents was 23 years. Male youths were slightly fewer (40%) than female youths (51%).

Table 4: Descriptive Statistics

Variable	Mean	Standard Deviation	Number of Observations	Min	Max
Dependent variables					
Wage employed	0.28	0.45	12500	0	1
Self-employed agriculture	0.33	0.47	12500	0	1
Self-employed business	0.16	0.36	12500	0	1
Not working	0.23	0.42	12500	0	1
Independent variables					
Health	0.22	0.41	15701	0	1
Residence	0.65	0.48	15784	0	1
Age	23.67	5.77	15790	15	35
Marital status	0.43	0.49	15739	0	1
No education	0.40	0.49	14083	0	1
Primary education	0.34	0.47	14083	0	1
Secondary education	0.16	0.37	14083	0	1
Tertiary education	0.10	0.30	14083	0	1
Gender	0.49	0.50	15790	0	1

Source: Author's estimates from the 2005/06 KIHBS data

4.2 Multinomial Logit regression outcomes

They show whether a young person will be not employed, self-employed in agriculture, self-employed in business or wage employed. Table 4 shows these results.

Table 5: Multinomial logit results; coefficients

Variable	wage employment	self-employment in agriculture	self-employment in business
Age	0.0132** (0.006)	0.0027 (0.006)	-0.0013 (0.007)
Primary education	0.3440*** (0.067)	0.1571** (0.063)	0.3074*** (0.076)
Secondary education	0.4904*** (0.083)	0.0841 (0.087)	0.2826*** (0.097)
Tertiary education	0.9293*** (0.106)	0.0531 (0.124)	0.2648** (0.127)
married	0.5441*** (0.071)	0.1753** (0.074)	0.8603*** (0.081)
gender	0.1221** (0.056)	-0.0099 (0.056)	-0.0555 (0.066)
health	0.1741** (0.069)	0.0512 (0.069)	0.1958** (0.078)
residence	-0.6931*** (0.058)	2.1300*** (0.079)	-0.7304*** (0.067)
constant	-0.2103 (0.138)	-1.4614*** (0.0146)	-0.3922** (0.159)

NOTE: ***- 1% significance, **- 5% significance, and *- 10% significance.

Source: Author's estimates from the 2005/06 KIHBS data

Table 6: Marginal effects of the multinomial logit results

Variable	wage employed	self-employed in agriculture	self-employed in business
Age	0.003** (0.001)	-0.001 (0.001)	-0.001 (0.001)
Primary education	0.045*** (0.012)	-0.013 (0.01)	0.017* (0.009)
Secondary education	0.087*** (0.015)	-0.039** (0.013)	0.007 (0.011)
Tertiary education	0.198*** (0.019)	-0.085*** (0.018)	-0.025* (0.013)
Married	0.053*** (0.012)	-0.052*** (0.01)	0.087*** (0.01)
Gender	0.030*** (0.010)	-0.01 (0.01)	-0.014* (0.008)
Health	0.023* (0.012)	-0.014 (0.01)	0.016 (0.009)
Residence	-0.254*** (0.007)	0.423*** (0.01)	-0.142*** (0.008)

NOTE: ***- 1% significance, **- 5% significance, and *- 10% significance.

Source: Author's estimates from the 2005/06 KIHBS data

The results show that education is a significant determinant of employment status of the youth. Educated youths compared to those with no formal education are more likely to be in wage employment than not employed. The educational effect on probability of wage employment increases with level of education. While youths with primary education are 3.6% more likely to be in wage employment than those with no formal education, those with secondary education and tertiary education are 7% and 15.6% more likely to be in wage employment than not employed respectively.

Youths with secondary education are 3% less likely than those with no education to be self-employed in agriculture compared to not working and the ones with tertiary education are 6.5% less likely than those with no education to be self-employed in agriculture as compared to not working. With regards to being self-employed in business, youths with primary education are 1.4% more likely than those with no education to be self-employed in business compared to not working while the ones with tertiary education are 2.1% less likely than those with no education to be self-employed in business as compared to not working. These results are expected because the human capital theory by Becker views formal education as highly instrumental and necessary in improving the productive capacity of an individual increasing chance of being employed (Becker, 1964). Zepeda et al (2013) also established that persons with primary level and secondary level of education do experience the most burning problem of unemployment and unemployment rates among persons with tertiary education is restricted to a small percentage of youths and some age groups

The results show that age matters for the youths to be in employment. An additional year of age increases likelihood of wage employment by 0.2% compared to not working. Age is a proxy for experience and hence the results are expected since experienced individuals are more likely to be employed since employers value experience. Zepeda et al (2013) found that unemployment did affect young people ever since they were little children up to when they attained the age of 28 years, depending on the level of education they had, and their gender.

Marital status of the youth is found to be a significant determinant of employment status. Married youths are 4.1% and 7.2% more likely to be in wage employment and self employment business respectively and 3.9% less likely to be in self employment agriculture compared to single youths and compared to not being employed. Youths who are married are likely to be in employment than single youths because of the urge to provide for their families especially males. This mostly applies to male youths where, male youths who are married are most likely to get employment while female youths who are married are most likely not to get employment (Kamau and Wamuthenya, 2013).

Msigwa and Kipesha (2013) in studying factors that determine unemployment of youths in Tanzania, found that single individuals are more likely to be unemployed (67%) compared to 60% for married individuals.

Results show that the residence of youths, whether in rural or urban areas matters for employment. Youths in urban areas are 23.5% less likely than the youths in rural areas to be in wage employment as compared to be not working. The Youths in urban areas are 45.1% more likely than the youths in rural areas to be self-employed in agriculture as compared to be not working. The Youths in urban areas are 13.3% less likely than the youths in rural areas to be self-employed in business as compared to be not working. These findings show that the status of youth employment both in rural and in urban areas is significant.

Gender is also found to be a significant determinant of employment status of the youths. Male youths are 26.7% more likely than female youths to be in wage employment than not to be working. Male youths are also 1.4% less likely than female youths to be self-employed in business than not to be working. Female may prefer self employment business because it is flexible and can allow them both to work and undertake child care responsibility. Male youths are likely to get employed than female youths due to their active nature (Msigwa and Kipesha, 2013). Female youths are always found to be many among the unemployed and their unemployment rate always rises over time. The male unemployment rate is always established to be much lower than that of the female (Kamau and Wamuthenya, 2013).

Individuals who reported to be ill are 17.9% more likely than youths facing no illness to be in wage employment than not to be working, youths facing illness are 1% less likely than youths facing no illness to be self-employed in agriculture than not to be working and youths facing illness are 1.3% more likely than youths facing no illness to be self-employed in business than not to be working. Different forms of illness affects youths productivity hence reduces their chance of being employed.

CHAPTER FIVE: SUMMARY CONCLUSION AND POLICY RECOMMENDATIONS

5.1: Introduction

This chapter presents the summary, conclusion and policy recommendation of the study. Section 5.2 summarizes the study while section 5.3 provides the conclusion and policy recommendations.

5.2. Summary of the findings

The status of youth employment is a very important policy issue not only in Kenya but also in many developing countries. Despite the government having emphasis in supporting youths by implementing projects and programs to promote youth employment, a lot of youths find it difficult to get employment. Unemployment may lead to crime and other social problems like prostitution if youths are left to stay idle. This study analyzed the effect of education on probability of youth being employed in wage employment, self employment agriculture and self employment business or not working in Kenya using multinomial logit model with data from the Kenya Integrated Household Budget Survey 2005/06.

The results show that individuals with education are more likely to get employment. First, individuals with primary, secondary and tertiary education are more likely compared to those with no education to get wage employment than not being employed. Second, individuals with secondary and tertiary education are less likely compared to those with no education to be self employed in agriculture than not being employed. Third individuals with primary education are more likely than those with no education to be self-employed in business compared to not working but individuals with tertiary education are less likely than those with no education to be self-employed in business as compared to not working. Other factors like marital status, gender and age are also found to affect employment status of the youths. Single youths are found to be more unemployed than married youths. The female youths are found to experience the burden of unemployment much more than the male youths. Older youths are more likely to get employment compared to youths who are full time students.

5.3 Conclusion and Policy recommendation

Education is an important determinant of wage employment and agricultural employment. Wage employment is especially characterized by stabilities and work benefits. Two sectors are also associated with more income. To promote employment of the youth especially wage and agricultural employment the government should promote education. Government making primary education free is good to this end. Secondary and tertiary education should also be expanded by subsidizing and provision of loans. Females are also less likely to be employed in the wage sector. The government should abolish all forms of discrimination against females.

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