

**UNIVERSITY OF NAIROBI**

**DETERMINANTS OF WOMEN OCCUPATION CHOICE IN KENYA**

**BY**

**WASHINGTON OWINO KAINGA**

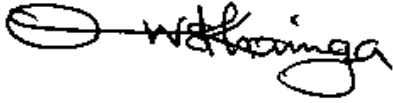
**X50/64221/2013**

**A RESEARCH REPORT SUBMITTED TO THE SCHOOL OF ECONOMICS IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE  
DEGREE OF MASTER OF ARTS IN ECONOMICS OF THE UNIVERSITY OF  
NAIROBI**

**OCTOBER 2020**

## DECLARATION

This research report is my original work and has not been presented for a degree award in any other university.



19/11/2020.

.....  
Washington Owino Kainga

.....  
Date

X50/64221/2013

This research report has been submitted with my approval as the University Supervisor

Signature .....

Date.....

Dr. Phyllis Mumia Machio

## **DEDICATION**

I dedicate this research paper to my daughter Sidney Vennesa and son Wayne Brandon, close friends and family for being supportive throughout the entire time of my study.

## **ACKNOWLEDGEMENT**

My gratitude is unto God for His mercies and favour that I have been able to successfully complete this course.

I am so much grateful to Dr. Phyllis Mumia Machio, for her support, availability, guidance and timely response until completion of this research paper. Dr. Phyllis Machio , be blessed and continue helping others realize their potential. I am also grateful to all lecturers at the school of economics in various units that you taught me. I thank all colleagues and friends who read my paper and gave meaningful insights

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iv</b>
<b>LIST OF FIGURES .....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>viii</b>
<b>ABSTRACT.....</b>	<b>ix</b>
<b>TABLE OF CONTENTS .....</b>	<b>Error! Bookmark not defined.</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
<b>1.1 Background of the study.....</b>	<b>1</b>
<b>1.2 Statement of the Problem .....</b>	<b>4</b>
<b>1.3 Research Questions .....</b>	<b>5</b>
<b>1.4 Objective of the study .....</b>	<b>5</b>
<b>1.5 Justification of the Study .....</b>	<b>5</b>
<b>1.6 Organization of the Study .....</b>	<b>5</b>
<b>CHAPTER TWO .....</b>	<b>6</b>
<b>LITERATURE REVIEW .....</b>	<b>6</b>
<b>2.1 Introduction .....</b>	<b>6</b>
<b>2.2 Theoretical Literature Review .....</b>	<b>6</b>
<b>2.3 Empirical Literature Review.....</b>	<b>7</b>
<b>2.4 Overview of Literature .....</b>	<b>11</b>
<b>CHAPTER THREE.....</b>	<b>12</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>12</b>
<b>3.1 Introduction .....</b>	<b>12</b>
<b>3.2 Theoretical framework .....</b>	<b>12</b>
<b>3.3 Empirical model .....</b>	<b>13</b>

<b>3.4</b>	<b>Variable definition and measurement</b> .....	15
<b>3.5</b>	<b>Data, data types and source</b> .....	16
	<b>CHAPTER FOUR</b> .....	<b>17</b>
	<b>DATA ANALYSIS AND DISCUSSION OF RESULTS</b> .....	<b>17</b>
<b>4.1</b>	<b>Introduction</b> .....	17
<b>4.2</b>	<b>Descriptive Statistics</b> .....	17
<b>4.3</b>	<b>Multinomial logit model results</b> .....	19
<b>4.4</b>	<b>Marginal Effect the multinomial logit model result</b> .....	20
	<b>CHAPTER FIVE</b> .....	<b>23</b>
	<b>CONCLUSION AND POLICY RECOMMENDATIONS</b> .....	<b>23</b>
<b>5.1</b>	<b>Introduction</b> .....	23
<b>5.2</b>	<b>Summary and Conclusion</b> .....	23
<b>5.3</b>	<b>Policy Recommendations</b> .....	23
<b>5.4</b>	<b>Areas for further studies</b> .....	24
	<b>REFERENCES</b> .....	<b>25</b>

## LIST OF FIGURES

<b>Figure 1:</b> Percentage Distribution of Occupations by Gender in Kenya, 2014 .....	2
<b>Figure 2:</b> Trend in Professional/Technical/Managerial Occupation in Kenya .....	3
<b>Figure 3:</b> Trend in Agricultural Occupation in Kenya.....	3
<b>Figure 4:</b> Trend in Sales and Services Occupation in Kenya .....	4

## LIST OF TABLES

Table 1: Variable Definition and Measurement.....	15
Table 2: Descriptive Statistics .....	17
Table 5: Multinomial logit model results.....	19
Table 6: Marginal Effects Multinomial Logit Model Results .....	20



## **ABSTRACT**

According to ILO (2018) 44 % of women across the world are employed in formal occupations compared to 66% of men, representing a gender-employment gap of 22%. Women in Kenya continue to be underrepresented in technical, professional and managerial jobs within occupational structure (KNBS, 2014). This study investigated the determinants of occupational choice among women in Kenya's labour market using the 2014 Kenya Demographic and Health Survey. The study employed a multinomial logit model. The occupations were grouped into professional, agriculture, household work, service work and manual work. The findings of the study established occupational choice was affected by factors that included age, age-squared educational level, marital status, wealth index, having a child, household size and place of residence. The study recommends that the government should promote female education especially higher levels of education. The government should also ensure that professional jobs are accessed by all women regardless of their socio-economic class.



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

The fraction of women employed in modern wage occupations has risen from 35% to 41% between 1990 and 2014. Similarly, percentage of women breadwinners (measured as a share of the total employed females) in low paying occupations reduced from 59% to 46% over this period (ILO, 2018). Despite this positive improvement, a wide gap still exists where women are less likely to find jobs in formal occupations as compared to men.

Existing statistics show that occupations characterized by job security, comprehensive social protections, and attractive wages and better working conditions are held more by men than women (ILO, 2018). The number of women in formal occupation has risen considerably but the increase is still lower than that of Men. The ILO (2018), reported that 44 % of women across the world were employed in formal occupations compared to 66%of men, representing a gender-employment gap of 22%. Women's remuneration also tends to lag behind that of men who possess same human capital and doing same tasks. A Lot of the work done by women on overtime is not paid in addition to family responsibilities which are not always compensated (ILO, 2018).

Urbanization and globalization nexus led to high cost of living and global awareness which reinforced women continuous participation in paid employment to complement their family income, (Omolo, 2010). Also, HIV and AIDS pandemic in Africa led to the rise in single families widowed with children and left with sole responsibility of upbringing and providing for their families. This further complicates women involvement in well-paying occupations as young women are forced to engage in any available occupations usually with lower marginal product of labor in order to provide for their families as the breadwinner (Adebayo, 1999; Egbuna, 2001). Women are equally under-represented in decision making processes at national and county level where vital labor and employment policies directly affecting their work life are formulated for implementation (Flabbi, (2011).

Patriarchal nature of most societies discouraged women's participation in well-paying jobs and promoted socialization of young women to pursue female friendly occupations such as teaching, nursing and catering most of which have low marginal product of labor. Women's limited access to capital as a factor of production exposed them to future vulnerable

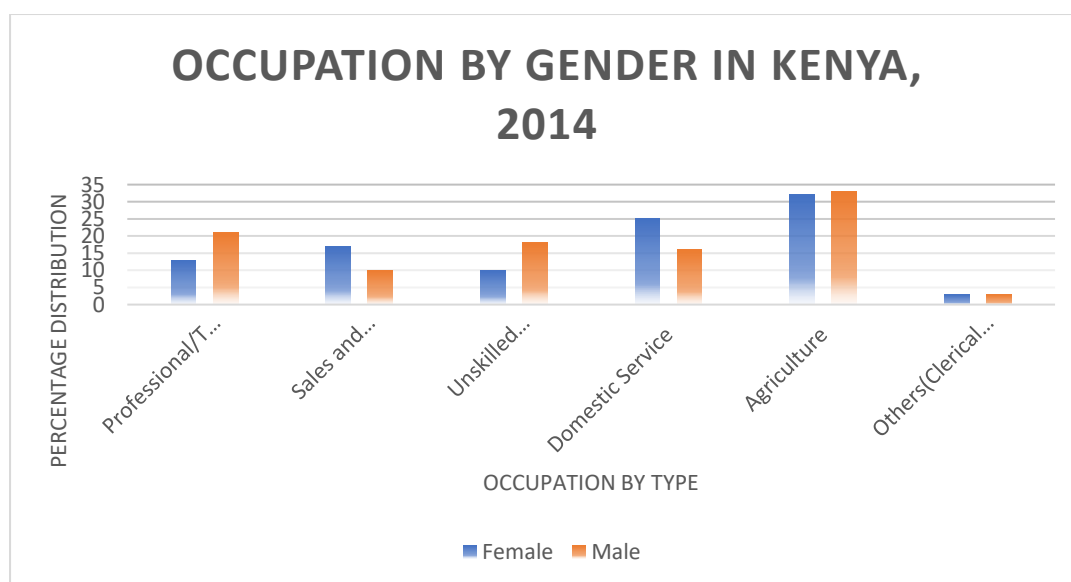
employment, (Ioana, 2010). By restricting women’s right to own property and inherit family wealth such as land, such practices also negatively affect women’s access to better education and future employment prospects (Ioana, 2010). These conservative cultures and practices in Africa could therefore have played an integral role in women occupational choice and labor market segregation.

### 1.1.1 The occupational patterns of women in Kenya

It is estimated that 50 percent of women in Kenya were employed in formal occupations as compared to 77 percent of men (KNBS, 2015). The distribution of women by job description and position reveals that a few women work in senior management positions across most organizations. In addition, men are more likely than women to experience vertical or horizontal occupation mobility (Fung et al, 2006). The biasedness in selection and hiring process that is skewed against women has hindered their full labor market participation (UNDP, (2015). Gender gaps in employment remain the most serious challenge facing Kenya’s labor market (Omolo, 2010).

Figure 1 presents the job occupations of male and females. In the agricultural sector, the proportion of women dominates that of men. Men dominate in professional/ technical/ managerial and unskilled manual labour.

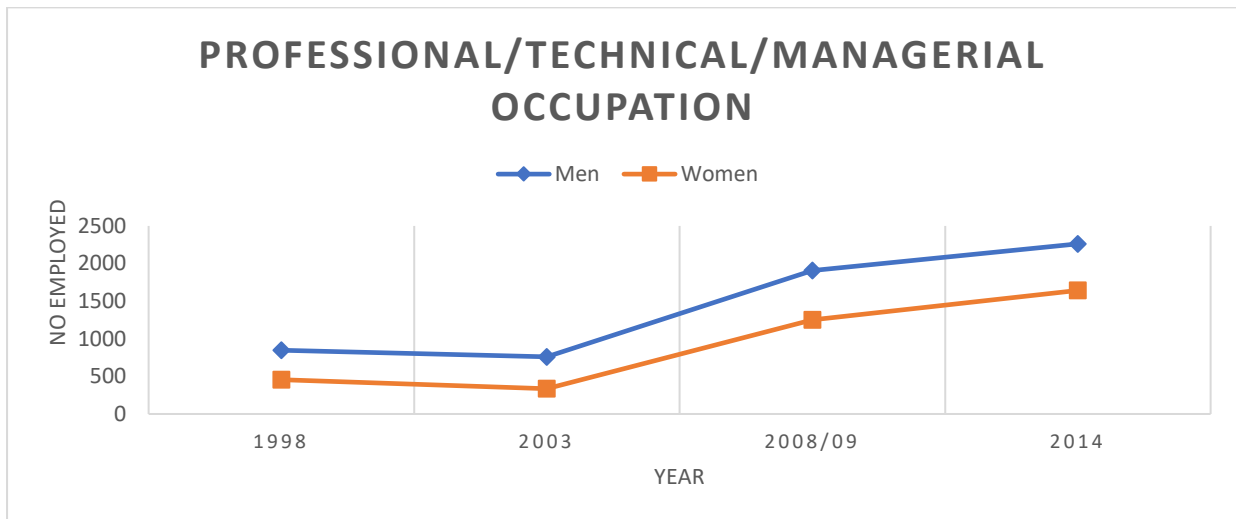
**Figure 1: Percentage Distribution of Occupations by Gender in Kenya, 2014**



Source: Author computation from Kenya Demographic and Household Surveys, 2014

Figure 2 shows trends in men and women working in the professional/technical and managerial occupations. Figure 2 below demonstrate an upward trend in the professional, technical, and managerial occupation from 2003 to 2014 for both men and women with men being relatively more than women. Men’s trend has consistently remained above that of women and the gap has slightly widened between 2008-2014.

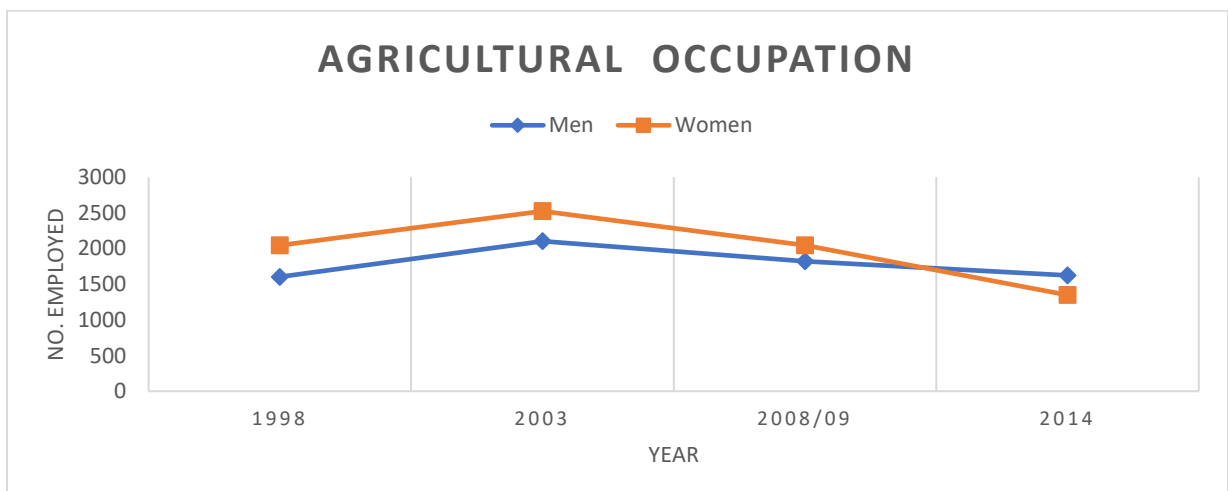
**Figure 2: Trend in Professional/Technical/Managerial Occupation in Kenya**



**Source: Author’s Calculations using Kenya Demographic Household Surveys (1998, 2003, 2008/09 & 2014)**

Figure 3 below shows that while the share of women in agricultural occupations has been higher than that of men, the share has been falling over the years, falling below that of men by 2014.

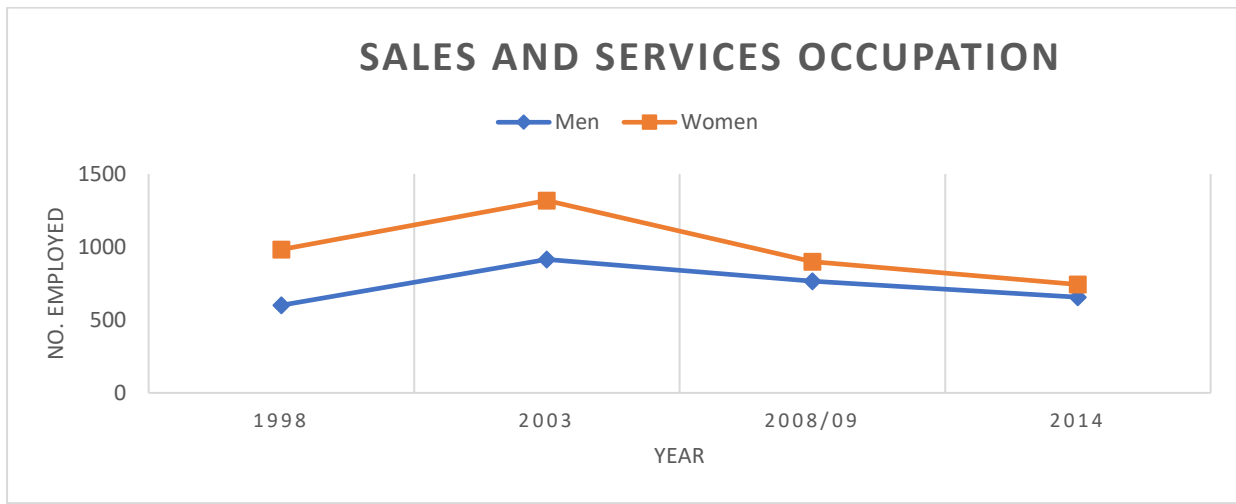
**Figure 3: Trend in Agricultural Occupation in Kenya**



**Source: Author's Calculations using Kenya Demographic Household Surveys (1998, 2003, 2008/09 & 2014)**

Figure 4 shows that more women work in sales and services occupation as compared to men during the period. Also, there was an upward trend in the number of men and women between the year 1998 and 2003. However, from 2004 to 2008/09, the number fell drastically and eventually slowed down as we approach the year 2014.

**Figure 4: Trend in Sales and Services Occupation in Kenya**



**Source: Author's Calculations using Kenya Demographic Household Surveys (1998, 2003, 2008/09 & 2014)**

## 1.2 Statement of the Problem

According to ILO (2018) 44 % of women across the world were employed in formal occupations as compared to 66% of men, representing a gender-employment gap of 22%. Women in Kenya continue to be underrepresented in technical, professional and managerial jobs within occupational structure (KNBS, 2014).

What determines selection into different occupations? Previous studies on Kenya have focused on segregation of wages in the labour market (Mariara,2003; Omolo ,2010; Njiru(2013). There is limited number of on the determinants of career choice by women in Kenya. Based on this, this study examined the main determinants of occupational choice by women in Kenya.

### **1.3 Research Questions**

The study sought to address the following questions:

- I. What factors influence women's occupational choices in Kenya
- II. What policy recommendations can be drawn from the study?

### **1.4 Objective of the study**

The main objective of the study was to investigate the determinants of women occupational choice in Kenya

#### **1.4.1 Specific objectives**

The study addresses the ensuing objectives:

- I. To establish the determinants of women occupational choices in Kenya
- II. To formulate appropriate policy recommendations

### **1.5 Justification of the Study**

For people to prosper economically and socially in a sustainable way, a working population is critical in resource mobilization. To maintain, improve and promote an economically empowered and healthy society, ensuring adequate access to quality job opportunities for women is essential. Therefore, results of the study provides insight to Ministry of Labor, legislators and other policy makers at the national and county governments on causes of occupational segregation and provide solutions for promoting women participation in various occupations so as to achieve the SDGs and Vision 2030. The study assists the government with new perspectives of dealing with occupational sex segregation. Also, the new literature was added to the existing body of knowledge of factors that influence women occupational choices hence provide a reference material to future research

### **1.6 Organization of the Study**

The rest of the paper is organized as follows: Chapter 2 covers the literature review. Chapter 3 covers the methodology adopted in this study. It specifies the theoretical framework, empirical model, variables, and the data type, and sources.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section gives theories and empirical literature reviews in relation to determinants of the occupation choice. The chapter starts with a review of theoretical literatures, followed by empirical literature review and finally an overview of literature.

#### **2.2 Theoretical Literature Review**

##### **2.2.1 Gender Role Socialization Theory**

The intuition in this theory is that the decision by women to work in occupation supposedly for women is dependent on their social behaviour which is popularly known as feminism and stereotyping (Early, 1987). These are mainly the less decent jobs which are determined by the career choices they make, and they include home chores, farming, social work, secretarial work, among others. According to Marini & Brinton (1984), such occupational choices are inclined to their interests which cause alterations in the labor market jobs. The concept of low self-esteem comes to play as women underestimate their competency in other career choices, thus making them view all jobs as special due to the friendships and networks. According to Waite and Berryman (1985), female children whose parents have blue collar jobs work in occupations which are dominated by men.

##### **2.2.2 Human Capital Theory**

The idea in this theory is that choice of occupation by women is dependent on human capital stock (Polacheck, 1991). It is assumed that both workers and employers behave rationally in competitive market environment with employees going for best paying given their experience and academic qualifications. The underlying assumption is that productivity depends on the personal endowments which are obtained through experience, training, and education. The choice by workers or parents to academically invest in their children's education increases their job opportunity prospects. The implication is that education equips students for work possibilities (Anker, 1998). Although many think that wage is the main factor that affects the occupational structure, other factors such as skills, experience and the career course chosen are key in the occupational structure. Consequently, this explains the career choices and labour dynamics by women.



### **2.3 Empirical Literature Review**

Using descriptive research design, Njiru (2013) noted that progression of women in their career depends on the positive perception in their workplace. This study was carried out on Standard Bank which incorporated sixty employees which composed of 10 percent of all the employees at the time. This study applied content evaluation to ascertain the factors that affect women's career progression. Among the key recommendation of the study was that career progression among women can be encouraged through adopting work policies such as the establishment of the baby care centers at the workplaces.

Omolo (2010) studied dynamics and trends in employment in Kenya using cross-sectional data from the Kenya Demographic and household survey, 1998. Using the logit model, the study findings show that men were dominant in male dominated careers which are mainly professional, manual works, managerial and technical areas compared to their female counterparts. More women were found to dominate domestic services, sales and services and agriculture, among others. Men earned relatively higher than women. The study results established that employment of both men and women was affected by economic growth, inflation rate, interest rates as well as stable political environment. Other factors such as human capital, wealth index and age also affect individual occupational choices and the employment trends in Kenya.

Berverly (1980), examined career aspirations of women in Kenya using a multivariate method. The study sought to investigate how socioeconomic status and ethnic affiliations of parents affect women occupational choices and perception of professional opportunities in general. The study used primary data collected using stratified sampling technique in six selected secondary and higher learning institutions across the country where a total sample of 284 candidates was drawn for analysis. The findings were that social economic status and ethnic affiliations of parents affect women occupational choices right from the education attainment, courses taken in higher learning institutions and professions of the family members. This study suggests policy to strengthen career guidance and counselling to streamline one's skills to the future occupations.

A study by Mariara (2003) sought to determine wages and gender wage gap across occupational choices in Kenya using MNL and Ordinary Least Squares model. The finding was that education, in addition to some demographic variables influence on choice of

occupations and wages. The gender breakdown results indicated that prejudice towards men is manifested across sectors, but no indication against women bias.

A recent study by Racene (2016) sought to establish the factors that affect career change among women in Nigeria. Using primary data collected from 1087 people, several factors were found to affect career change among women. Among the key factors, education level was found to be very important in the career change, and statistically significant. Other factors found affecting the career changes by women include place of residence, psychological factors, and the attitude that their supervisors have towards their women employees.

Sheridan (1997) study investigated the reasons or factors that affected women's choice of careers dominated by men for the period 1960-1990. The study findings showed that early sex role socialization, and occupational aspirations in particular are an integral part in reproducing occupational sex segregation generally. In addition, family structures of women was found to have little effect on the long-run to disrupt the distribution of women in male-dominated and female-dominated occupations, as well as out of the labor force. Factors such as premature sex and occupational ambitions are important in job discrimination and thus affect women involvement in the labour market. This presented the need to formulate policies that allow for both men and women to participate in the various careers which have been known to be men dominated for long period.

Casale and Posel, (2002), analyzed factors influencing women participation in modern occupations in South Africa. The study used multiple logistic regressions to examine the cross-sectional data collected from Household survey conducted in 1993 and 2000 by South Africa national bureau of statistics. The finding shows that there was improvement in women employment in well-paying occupations with high skills and requirements. In addition, majority of women still have limited job opportunities during the period pointing to gender imbalances in South Africa labour markets. Institutional factors such as discrimination based on age, sex, education, and difference in social class perpetuates gender gaps in occupation. This study suggests policy interventions to reduce labour market distortions from both demand and supply side.

The empirical investigation in Israel by Stier and Yaish (2014) sought to find out the occupational segregation and gender inequalities in the job inequalities using Multilevel approach based on 2005 ISSP surveys. The study findings indicated that in terms of quality jobs in Israel, women are lagging behind since they are engaged in low-wage relative to men.

These low paying jobs cannot compensate women appropriately as compared to men. The reasons for women engagement in low paying jobs include gender, age, marital status, household size, education, public and private sectors jobs, working hours affect women access to quality jobs. As women become educated, more find quality jobs there by reducing gender gap in occupations.

Ioana (2010) analyzed the relationship between gender distribution across industries and occupations, incidence, and consequences of displacement. Data used was drawn from the Displaced Worker Survey (1984-2002) Toronto and multilevel approach of data analysis was used. The findings established that women are more likely to get displaced at one industry and occupation level than men and they do experience higher displacement cost in form of employment and income effect. Hence women prefer less risky occupations with low displacement costs explaining up to 60% of their distributions to these occupations.

According to Naidoo (2000) women are strongly empowered and their gender does not affect the choice of career in the vast area of Durban in South Africa. Using primary data sampled on Indians and African women, aged between 15-60 years, the study findings established that career opportunities available to South African Black women were taken very positively by them relative to Indians. Among the factors identified that affected the career choice of the respondents include the chance to make decision, parental guidance, stereotyping and self-efficacy beliefs.

The study by Domenico and Jones (2006) sought to find out the career aspirations by women in the 20th century. In their study they reached to a conclusion that career aspirations among women is affected by several factors such as race, socioeconomic status, occupation, and educational level of parents, among other factors in the previous century. Women's career was also affected by the expectations that their parents had on them. Their review showed that the European American women had higher career aspirations relative to African Americans and other races living in USA.

Fung, et. al, (1996) analyzed the occupational choice of young professionals in China using household budget survey data. The study applied multivariate statistical approach and the findings were that personal interest, acquired skills through training and expected salary had significant influence on the occupational choices. Men tend to have great influential view of the work and thus, prefer extrinsic rewards. Female employees on the other hand ranked high-level salary and improved at work conditions as the top consideration, which are intrinsic in

nature. The desirability or preference for the jobs depended on how secure its tenure was, especially in the state-owned enterprises.

Chusmir and Parker, (1991) determined the sources of gender differences in work values across occupations using household demographic survey data. Using logistic model, the study found that in general women consider conditions of work affecting their attachment and safety at work. This include working hours with flexibility, women friendly occupations which offers maternity and sick leaves and finally, availability of day care services for the family. In addition, they prefer jobs that enable them to fulfill personal and familial responsibilities, interpersonal relationships and that have job security.

Yeh and Granrose, (1993) investigated women and men occupational choices in three firms in Japan, USA, and Taiwan to establish the differentials in employment goals using household budget survey data. Applying multivariate regression techniques, the findings were that individual and household taste and preferences linked to social class and education level, affect the selection into different occupations. In addition, women value personal time as compared to men in USA and Japan.

Betz and O'Connell (1989) in US analyzed occupational orientations of females and males from gender socialization approach. They used household budget survey by the bureau of labor statistics and applied logistic regression. The result revealed that women prefer extrinsic elements such as work relationships, occupational attainments and more avenues for learning and development. On the other hand, men put more emphasis on other factors such as wages, occupational type, and work exposures.

Ngo (2000) examined the distribution of occupations in Urban China to measure the extent of occupations segregation by gender. Data was collected from the Chinese National labor statistics and multinomial logit model was used. The findings were that institutional factors affect men and women occupational options and segregations in China. Women are more affected by these institutional factors as compared to men.

Konrad et. al, (2000) investigated the inter relationship between gender gaps in occupations and characteristics linked to different occupations. The study used a panel data collected from the US bureau of labor statistics. Applying a multi logit occupational choice model, the study found that job location, remunerations, future growth prospects and human development had a significant influence on gender gap in occupations. The occupational choices of men were

affected more by wages as compared to women who considered job location as vital factor since it enables them to meet their family responsibility.

Moss et. al (1993) used a qualitative method to analyse the vocational choices of women in communist nations using the primary data collected using a stratified random sampling. By examining matching models of women in different occupations using the behaviours and taste, the study found that women have qualities such as competence, caring and compassion and therefore, prefer domestic occupations. Contrary to this, Fisher & Yuan (1998) found very few differences between female and male professional workers in relation to occupational preferences like working conditions, salary, advancement, and development opportunities. However, a vital gender differences lies in the job guarantee preferences.

## **2.4 Overview of Literature**

The human capital theory explains that occupation structure is affected by factors such as wage, skills, experience and the career course chosen. The review of empirical studies suggest that a women occupational choice is influenced by a combination of demand and supply related factors. The supply side factors include social and demographic factors like educational level, work experience, marital status, age, wealth index, area of residence. The demand side factors include the institutional and labor market discrimination on basis of job attributes, gender, and wealth index.

Studies done in Kenya sought to determine the occupational segregation and gender inequalities and effect on wage (Mariara, 2003). There is limited number of studies carried out on the determinants of occupational choice (Njiru , 2013; Betz and O'Connell , 1989; and Moss et. al ,1993) These studies are general without focus on marginalized groups such as women and youths and particularly in developing countries. This leaves unfilled gap in this area of research on factors that affect occupational choice of women. It is on this grounds that this study seeks to examine the determinants of the occupational choice by women in Kenya using the 2014 KDHS dataset.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter discusses the methods employed in addressing the objectives of the study. The section depicts the theoretical framework, econometric model, variable definition and their measurement, and data types and sources.

#### 3.2 Theoretical framework

The study adopts the random utility theory developing from the probability discrete choice as originally developed by Thurstone (1927) in psychometrics, and latter introduced in economics by Marchak (1960). According to Thurstone, individual choice is modelled as an outcome of random variable related to each alternative, whereby the alternative with the highest realization is selected. Anderson et al. (1991) and McFadden(2001) depicted that, in the case where the incentives associated with the choices are considered in terms of satisfaction or utility, then it can be considered as a model of economic choice, in this case, the individuals chooses the alternatives with the highest utility.

Consider a person who has an option of selecting one option from a set of alternatives. In this case, a woman makes an occupational choice given various observable and unobservable factors. According to the neoclassical theory, individuals have perfect discriminatory power and unlimited information-processing capacity, hence they ranked the options available in a consistent and well- structured manner, thus they determine their choice and they can repeatedly make the same choice under undistinguishable circumstances (Anderson et al., 1991).

The true utility function of the individual cannot be determined easily, which gives rise to the probability choice theory since the individuals may not have full information about the characteristics of the alternatives (Manski, 1977). Furthermore, given that the alternative is made up of observable and unobservable features, the utility function is deterministic in nature from an individual's point of view, which is in line with the neoclassical economics.

We develop an indirect utility function which is composed of the observable features of the alternatives as well all the factors that influence the consumer's choice (unobservable). We have the following utility function:



$$P(y = 0/x) = 1/[1 + \sum_{h=1}^J \exp(X\beta_h)] \dots \dots \dots 5$$

The MNL model is best estimated using the maximum likelihood. For each  $i$  the conditional log likelihood can be defined as follows:

$$l_i(\beta) = \sum_{j=0}^J 1[y_i = j] \log[p_j(X_i, \beta)] \dots \dots \dots 7$$

Where the indicator function selects out the appropriate response probability for each observation  $i$ . The study proposes the following linear model in analyzing the influence of different variable on occupation choice among women in Kenya:

$$Y_i = \beta_0 + \sum_n^i \beta_i X_i + \varepsilon_i \dots \dots \dots 8$$

Where,  $Y$  is the dependent variable, with categories 1 and 2, 3, 4 and 0, defined as professional/technical/managerial, agricultural occupation, sales and services occupation, women not working, and unskilled and domestic services, respectively.  $X$  represents all the explanatory variables which include age, sex, level of education, residence, household size, marital status, having a child below 5 years, and wealth index.  $\beta_0$  is the intercept, while  $\beta_i$  is the coefficient associated with explanatory variables, respectively. The error term is represented by  $\varepsilon$



### 3.4 Variable definition and measurement

**Table 1: Variable Definition and Measurement**

Variable Name	Measurement	Expected Sign
<b>Dependent variable</b>		
Occupation	This variable is categorical with categories as follows: 0 if the woman is in unskilled and domestic services occupation 1.. if woman is in professional/technical/managerial. 2. if the woman is in agricultural occupation. 3. if the woman is in sales and services occupation 4. if a woman is not working	
<b>Independent variables</b>		
Age	This is a continuous variable which give the age of the woman in years	±VE
Level of education	This is a dummy variable defined as follows: Formal education= 1 if the woman has formal education, 0 otherwise. Primary education = 1 if woman has primary education, 0 otherwise Secondary education = 1 of woman has secondary education, 0 otherwise Tertiary education = 1 if woman has tertiary education, 0 otherwise.	±VE
Residence	This is a binary variable, measured as: 0 if a person is from rural area, and 1 if from urban	±VE
Household Size	This is a continuous variable which gives the number of the people living in the household	±VE

Marital status	This is a dummy variable defined as follows: Woman is married= 1 if woman is married, 0 otherwise Woman separated/divorced= 1 if separated/divorced, 0 otherwise Woman widowed/never married= 1 if widowed/never married, 0 otherwise	±VE
Children below 5years	This is a dummy variable with binary categories: 0 if the woman has children below 5 years 1 if otherwise	±VE
Wealth Index	This is proxied by scores of wealth quintile, which is defined as lowest, second, middle, fourth, and highest the scores are defined as 1, 2 3, 4 and 5 representing poorer, poor, middle, richer, and richest respectively.	±VE

### 3.5 Data, data types and source

Secondary cross-sectional data is used in the study, which is the Kenya Demographic and Health Survey (2014). The survey sampled a total of 39,679 households, of which 36,430 were successfully interviewed.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF RESULTS

#### 4.1 Introduction

This chapter presents data analysis and discussion of results. Succeeding the introduction is the descriptive statistics, which gives a summary of the data used, including the mean, standard deviation, minimum and maximum. The subsequent sections include the diagnostic tests (normality test, multicollinearity test and heteroskedasticity test), followed by the multinomial logit model result and the marginal effect results, with discussion of the same.

#### 4.2 Descriptive Statistics

Descriptive statistics provide a summary of the variation and distribution of data used for estimation. In this sub-section, the mean, standard deviation, the minimum and maximum values of the variables used in the study are computed. The mean shows the average value for the variables included in the study. The standard deviation is a measure of dispersion which shows the variations of the variable observations from the mean. The measures of extreme values are measured by minimum and maximum values. The minimum shows the lowest values of the variables. The maximum shows the highest attainable values of the variables in the study.

**Table 2: Descriptive Statistics**

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<b>Not Working</b>	14,664	0.384	0.486	0	1
<b>Professional</b>	14,664	0.093	0.291	0	1
<b>Agriculture</b>	14,664	0.220	0.414	0	1
<b>Household work</b>	14,664	0.159	0.366	0	1
<b>Service work</b>	14,664	0.080	0.271	0	1
<b>Manual work</b>	14,664	0.063	0.244	0	1
<b>Age</b>	31,079	28.942	9.393	15	49
<b>Age Squared</b>	31,079	925.851	580.964	225	2401
<b>No education</b>	31,079	0.135	0.341	0	1
<b>Primary education</b>	31,079	0.502	0.500	0	1
<b>Secondary Education</b>	31,079	0.277	0.447	0	1
<b>Tertiary Education</b>	31,079	0.086	0.281	0	1
<b>Never Married</b>	31,079	0.276	0.447	0	1
<b>Married</b>	31,079	0.613	0.487	0	1
<b>Widowed</b>	31,079	0.038	0.192	0	1
<b>Divorced</b>	31,079	0.073	0.261	0	1
<b>Poor</b>	31,079	0.426	0.494	0	1
<b>Middle</b>	31,079	0.191	0.393	0	1

<b>Rich</b>	31,079	0.383	0.486	0	1
<b>Coast</b>	31,079	0.126	0.331	0	1
<b>Northeastern</b>	31,079	0.054	0.225	0	1
<b>Eastern</b>	31,079	0.169	0.375	0	1
<b>Central</b>	31,079	0.100	0.300	0	1
<b>Rift valley</b>	31,079	0.291	0.454	0	1
<b>Western</b>	31,079	0.091	0.288	0	1
<b>Nyanza</b>	31,079	0.137	0.344	0	1
<b>Nairobi</b>	31,079	0.032	0.176	0	1
<b>Child Below 5 years</b>	31,079	0.630	0.483	0	1

**Source: Author (2020)**

On average the women in this study were aged 29 years. The mean value shows that 38% of the women were not working, 9% were engaged in professional jobs, and 22% were doing agricultural related activities while 16% were in household jobs. Those women engaged in service work and manual jobs accounted for 8% and 6 % respectively. As such it can be concluded that majority of the women were not working, and this implies that they stayed at home or not engaged in any economically productive activity.

Education level was relatively low among women in this study. The findings show that approximately 28% had secondary education while 9% had acquired tertiary education which implies that they had gone to colleges and universities and 14% had no education. Therefore, most of women seem to have only acquired educational level below secondary education. Majority of the women in this study accounting for 61% were married while 28% had never gotten married. Those divorced and widowed accounted for 7% and 4% in this study.

Economic status for which the women taken into in this study showed that 43% were poor while 38% were classified as rich .The rest of the women belong to the middle class accounting for 19%. Majority of the women in this study came from the Rift Valley accounting for 29%, 17% from Eastern Province, 13% from Nyanza and 13% from the Coast. Central Kenya and Western followed each with 10% and 9% respectively. North Eastern and Nairobi had the least number of women with 5% and 3 % respectively. Of the total women who participated in this study, 63% had a child below years of age. Thus, majority of them were in child-bearing age.

### 4.3 Multinomial logit model results

**Table 3: Multinomial logit model results**

Variables	Professional	Agriculture	Household work	Service work	Manual work
Age	0.569*** (0.036)	0.396*** (0.024)	0.507*** (0.025)	0.565*** (0.033)	0.486*** (0.034)
Age Squared	-0.0075*** (0.0005)	-0.005*** (0.0004)	-0.007*** (0.0004)	-0.009*** (0.0005)	-0.007*** (0.0005)
No education	-4.021*** (0.186)	-0.764*** (0.185)	-0.638*** (0.150)	-0.968*** (0.191)	-0.342 (0.245)
Primary education	-2.777*** (0.116)	1.110*** (0.164)	0.468*** (0.123)	0.269* (0.140)	1.018*** (0.211)
Secondary education	-1.880*** (0.104)	0.962*** (0.165)	0.343*** (0.123)	0.329** (0.139)	0.754*** (0.213)
Never married	-1.106*** (0.168)	-0.996*** (0.144)	-1.334*** (0.128)	-1.340*** (0.151)	-0.950*** (0.168)
Married	-0.848*** (0.144)	-0.0360 (0.120)	-1.211*** (0.108)	-1.135*** (0.127)	-0.935*** (0.139)
Widowed	-0.204 (0.234)	0.239 (0.181)	-0.557*** (0.178)	-0.459** (0.228)	-0.213 (0.222)
Poor	-0.305*** (0.101)	0.979*** (0.0716)	-0.426*** (0.0703)	-0.904*** (0.0919)	0.054 (0.0960)
Middle	-0.171 (0.105)	0.903*** (0.0788)	-0.278*** (0.0805)	-0.372*** (0.0965)	0.146 (0.107)
Coast	-0.0654 (0.196)	1.208*** (0.434)	-0.857*** (0.156)	-0.374** (0.184)	-0.643*** (0.245)
Northeastern	-0.937*** (0.270)	-1.523*** (0.576)	-2.437*** (0.229)	-1.262*** (0.254)	-3.015*** (0.508)
Eastern	-0.256 (0.193)	2.165*** (0.430)	-0.896*** (0.155)	-0.412** (0.182)	-0.518** (0.241)
Central	-0.0185 (0.206)	3.179*** (0.433)	-0.186 (0.164)	0.285 (0.189)	0.402 (0.247)
Rift valley	-0.238 (0.183)	1.888*** (0.429)	-0.733*** (0.147)	-0.465*** (0.174)	-0.0504 (0.229)
Western	0.0288 (0.205)	1.711*** (0.434)	-0.937*** (0.168)	-0.594*** (0.202)	-0.0969 (0.246)
Nyanza	-0.140 (0.197)	2.082*** (0.431)	-0.521*** (0.157)	-0.561*** (0.191)	-0.557** (0.248)
Child Below 5 years	-0.264*** (0.0800)	0.0361 (0.061)	-0.0254 (0.063)	-0.230*** (0.077)	0.00787 (0.086)
Constant	-7.523*** (0.618)	-10.72*** (0.604)	-7.258*** (0.449)	-8.188*** (0.574)	-9.297*** (0.637)
Observations	14,664	14,664	14,664	14,664	14,664

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5 above shows the multinomial logit results. The dependent variable has five categories which include, Professional/ technical/ managerial, agricultural, sales and services, woman not

working, and unskilled and domestic services occupation. Not working was the base category. On the education level, tertiary education was used as the base category hence dropped from the model results. Additionally, under marital status, widowed/ never married category was the base category while under wealth index, poorest was used as the base category.

In the table we see the coefficients, their standard errors, associated p-values, and the 95% confidence interval of the coefficients. The result tells us the direction of the relationship between the dependent and independent variables. Since the coefficients of the multinomial logit model are not directly interpretable (in terms of magnitude), we compute the marginal effects. The marginal effect results are displayed in Table 6 below followed by a discussion of the same.

#### 4.4 Marginal Effect the multinomial logit model result

**Table 4: Marginal Effects Multinomial Logit Model Results**

<b>Variables</b>	<b>Professional</b>	<b>Agriculture</b>	<b>Household work</b>	<b>Service work</b>	<b>Manual work</b>
Age	0.0158*** (0.0020)	0.0100*** (0.0027)	0.0247*** (0.0027)	0.0175*** (0.0021)	0.0093*** (0.0018)
Age Squared	-0.0002*** (0.0000)	-0.0001 (0.0000)	-0.0003*** (0.0000)	-0.0003*** (0.0000)	-0.0001*** (0.0000)
No education	-0.2240*** (0.0107)	-0.0044 (0.0227)	0.0297 (0.0164)	-0.0095 (0.0121)	0.0255 (0.0133)
Primary educ	-0.2045*** (0.0057)	0.1497*** (0.0200)	0.0418 (0.0128)	0.0114 (0.0082)	0.0459*** (0.0113)
Secondary edu	-0.1433*** (0.0049)	0.1256*** (0.0205)	0.0205 (0.0134)	0.0140 (0.0084)	0.0301* (0.0117)
Never married	-0.0203* (0.0092)	-0.0332* (0.0161)	-0.0792*** (0.0124)	-0.0418*** (0.0089)	-0.0088 (0.0084)
Married	-0.0207*** (0.0075)	0.0859*** (0.0123)	-0.1073*** (0.0093)	-0.0467*** (0.0070)	-0.0282*** (0.0065)
Widowed	-0.0028 (0.0124)	0.0671*** (0.0179)	-0.0654*** (0.0160)	-0.0239* (0.0134)	-0.0060 (0.0105)
Poor	-0.0187** (0.0058)	0.1667*** (0.0078)	-0.0711*** (0.0073)	-0.0698*** (0.0060)	-0.0016 (0.0049)
Middle	-0.0164** (0.0060)	0.1390*** (0.0086)	-0.0618*** (0.0084)	-0.0352*** (0.0060)	-0.0006 (0.0055)
Coast	-0.0014 (0.0120)	0.2143*** (0.0575)	-0.1376*** (0.0213)	-0.0269* (0.0126)	-0.0450** (0.0147)
Northeastern	0.0232 (0.0176)	-0.0318 (0.0776)	-0.1759*** (0.0332)	0.0008 (0.0187)	-0.1074*** (0.0305)
Eastern	-0.0261* (0.0118)	0.3471*** (0.0569)	-0.1764*** (0.0210)	-0.0431*** (0.0124)	-0.0525*** (0.0143)
Central	-0.0459***	0.4286***	-0.1518***	-0.0290*	-0.0303*

	(0.0123)	(0.0569)	(0.0212)	(0.0123)	(0.0143)
Rift valley	-0.0255*	0.2958***	-0.1506***	-0.0480***	-0.0224
	(0.0113)	(0.0568)	(0.0204)	(0.0120)	(0.0137)
Western	-0.0018*	0.2786***	-0.1709***	-0.0529***	-0.0200
	(0.0125)	(0.0574)	(0.0222)	(0.0137)	(0.0145)
Nyanza	-0.0219*	0.3231***	-0.1250***	-0.0592***	-0.0576***
	(0.0120)	(0.0570)	(0.0211)	(0.0130)	(0.0148)
Child Below 5 years	-0.0148**	0.0129*	0.0032	-0.0142***	0.0027
	(0.0046)	(0.0071)	(0.0066)	(0.0049)	(0.0046)

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6 shows a positive and statistically significant effect of age on occupational choices by women in Kenya. Increase in age in terms of year's leads to the increase in the probability of choosing the professional, agricultural and household, service and manual jobs by 2, 1, 2, 2 and 0.9 percentage points respectively.

The results also show that individuals with no formal education, primary education and secondary education were less likely to be employed in professional jobs compared to those with tertiary education. Women with no formal education, primary education and secondary education were 22, 20 and 14 percentage points less likely to work in professional occupations compared to those with tertiary education. This indicates that tertiary education is an important determinant of women being employed in professional jobs. For agricultural and manual jobs, we instead see that individuals with no formal education, primary education and tertiary education were more likely to be employed in these occupations. Such individuals find it hard to be employed in the professional jobs and end up setting for agricultural and manual jobs. A study by Mariara (2003) reached to a conclusion that education, in addition to some demographic variables influence on choice of occupations and wages. Similarly, Berverly (1980), noted that women occupational choices was also affected by educational attainment.

Marital status is another important factor considered in this study to find out if it has any effect on the occupation choice by women. The study found that being married had a negative effect on probability of being employed in professional, services, manual and service sectors but had a positive effect on probability of working in the agricultural sector. Being married reduced the likelihood of being employed in professional, services, manual and service sectors by 2, 11, 5 and 3 percentage points respectively but increased chance of working in the agricultural sector by 9 percentage points. An empirical investigation in Israel by Stier and Yaish (2014) also established that marital status, household size and education were in determining the occupational choices by women.

Wealth index was categorised in three categories as being poor, middle class and being rich. The results indicated that being poor significantly reduced the probability of engaging in professional, household work and service work by 2,1, and 1 percentage points respectively.. However, being poor increased the probability of engaging agriculture by 16 percentage points.

Place of residence had a significant effect on the on the choice of various occupations in Kenya by women. According to Konrad et Al., (2000) women considered job location as vital factor since it enables them to meet their family responsibility.

Having a child below 5 was found to have a significant effect on various job opportunities. The findings show that having a child below 5 years reduced the probability of engaging in professional and service work by 1.4 percentage points. However, it significantly increased the probability of engaging in agriculture by 1.2 percentage points.



## CHAPTER FIVE

### CONCLUSION AND POLICY RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summary, the conclusion, policy recommendations and areas for further research.

#### 5.2 Summary and Conclusion

This study employed a multinomial logit model to estimate the determinants of women participation in 5 main occupations in Kenya. These included professional, agriculture, household work, service work and manual work. The results indicated that age, education, poverty, marital status, having children below 5 years, and regional dummies had statistically significant effects on occupational choices by women.

#### 5.3 Policy Recommendations

Findings in this study indicated that tertiary education increased chances of women being employed in professional jobs. The government should therefore promote tertiary education among the women. More affirmative action in admission to tertiary institutions should be continued. This should couple with protection of girls from negative destructions that can cause them drop out of school while. Secondly, the study findings showed that women from richer households were more they are likely to participate in professional jobs which discriminates against the poor. Consequently, there should be consorted policy efforts to ensure that that such are jobs are equally accessed by all women regardless of their socio-economic class. Thirdly, the findings showed that women having children below 5 years were less likely to participate in professional jobs in Kenya and thus they end in domestic, unskilled and agricultural jobs. As a result, this study proposes that government should come up with appropriate policy measures that ensure women with children can also be allowed to equally participate in formal jobs. Finally, there is need for the government to ensure that women job opportunities are not discriminated on factors such age, residence and marital status but rather should be based on merit.

#### **5.4 Areas for further studies**

This study has put much focus on women ignoring other vulnerable groups such as youths and people with disabilities who also face high levels of unemployment in Kenya. Therefore this study proposes that a study be carried to find out the factors that affect their participation in various occupations in Kenya.

## REFERENCES

- Adebayo, A. (1999). Youth unemployment and the national directorate of employment self-employment programmes. *The Nigerian Journal of Economic and Social Studies*, 41(1), 81–104.
- Akuma, J. O. (2010). *The Effect of Occupation on Wage Discrimination in Kenya* [PhD Thesis]. School of Economics I. nww «s\*\*» on1 mwm 0478^ 3 7 A Research Paper
- Anker, R. (1998). *Gender and jobs: Sex segregation of occupations in the world*. International Labour Organization.
- Atieno, R. (2006). *Female participation in the labour market: The case of the informal sector in Kenya*. AERC.
- Betz, M., & O'Connell, L. (1989). Work orientations of males and females: Exploring the gender socialization approach. *Sociological Inquiry*, 59(3), 318–330.
- Boskin, M. J. (1974). A conditional logit model of occupational choice. *Journal of Political Economy*, 82(2, Part 1), 389–398.
- Casale, D., & Posel, D. (2002). The Continued Feminisation of the Labour Force in South Africa: An Analysis of Recent Data and Trends 1. *South African Journal of Economics*, 70(1), 156–184.
- Chow, I. H. S., & Ngo, H. (2002). Gender differences in job attribute preferences and job choice of university students in China. *Journal of Applied Business Research (JABR)*, 18(2).
- Constant, A. F., & Zimmermann, K. F. (2003). *Occupational choice across generations*.
- Constant, A., & Zimmermann, K. (2003). Occupational Choice Across Generations. IZA Discussion Papers 975. *Institute for the Study of Labor, Bonn*.
- Cornwall, A. (2002). *Making spaces, changing places: Situating participation in development*.
- Croissant, Y. (2012). Estimation of multinomial logit models in R: The mlogit Packages. *R Package Version 0.2-2*. URL: [Http://Cran. r-Project. Org/Web/Packages/Mlogit/Vignettes/Mlogit. Pdf](http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf).

- Dan, I. (2010). *Gender based self-selection into industries and occupations*. unpublished manuscript, University of Toronto.
- Domenico, D. M., & Jones, K. H. (2006). Career aspirations of women in the 20th century. *Journal of Career and Technical Education*, 22(2), n2.
- Eagly, A. H. (1987). Sex Differences in. *Social Behavior: A Social-Role Interpretation*.
- Fisher, C. D., & Yuan, X. Y. (1998). What motivates employees? A comparison of US and Chinese responses. *International Journal of Human Resource Management*, 9(3), 516–528.
- Flabbi, L. (2011). *Gender Differentials in Education, Career Choices and Labor Market Outcomes on A Sample of OECD Countries*. OECD.
- Fleisher, B. M. (1970). *Labor economics: Theory and evidence*.
- Fung, C. K., Min, K. Z., & Yong, W. W. (1996). Job choice and job mobility for Chinese young professionals. *Hong Kong Manager*, November-December 20–5.
- Gerson, K. (1986). *Hard choices: How women decide about work, career and motherhood* (Vol. 4). Univ of California Press.
- Henning, M., & Jardim, A. (1977). Superwomen. *Across the Board*, 14, 27–33.
- Jacobs, J. A. (1989). Long-term trends in occupational segregation by sex. *American Journal of Sociology*, 95(1), 160–173.
- Jacobs, S. C. (1995). Changing patterns of sex segregated occupations throughout the life-course. *European Sociological Review*, 11(2), 157–171.
- Judge, G. G., Griffiths, W. E., Hill, R. C., Lutkepohl, H., & Lee, T. C. (1985). *The theory and practice of econometrics*. John Wiley and Sons. *New York, New York, USA*.
- Kabubo-Mariara, J. (2003). *Wage determination and the gender wage gap in Kenya: Any evidence of gender discrimination?*
- Klasen, S. (2006). UNDP's gender-related measures: Some conceptual problems and possible solutions. *Journal of Human Development*, 7(2), 243–274.

- Klasen, S., & Lamanna, F. (2009). The impact of gender inequality in education and employment on economic growth: New evidence for a panel of countries. *Feminist Economics*, 15(3), 91–132.
- Konrad, A. M., Ritchie Jr, J. E., Lieb, P., & Corrigan, E. (2000). Sex differences and similarities in job attribute preferences: A meta-analysis. *Psychological Bulletin*, 126(4), 593.
- Kuhn, S., Milasi, S., & Yoon, S. (2018). World employment social outlook: Trends 2018. Geneva: ILO.
- Lindsay, B. (1980). Career aspirations of Kenyan women. *The Journal of Negro Education*, 49(4), 423–440.
- Liu, P.-W., Zhang, J., & Chong, S.-C. (2004). Occupational segregation and wage differentials between natives and immigrants: Evidence from Hong Kong. *Journal of Development Economics*, 73(1), 395–413.
- Malthus, T. R. (1798). An essay on the principle of population as it affects the future improvement of society, with remarks on the speculations of Mr Godwin, M. Condorcet, and other writers. London: J. Johnson.
- Marini, M. M., & Brinton, M. C. (1984). 11 Sex Typing in Occupational Socialization. *SPONS AGENCY*, 199.
- Marshall, R. (1984). Selective employment programs and economic policy. *Journal of Economic Issues*, 18(1), 117–142.
- McFadden, D. (1973). *Conditional logit analysis of qualitative choice behavior*.
- Moss, M. K., & Frieze, I. H. (1993). Job preferences in the anticipatory socialization phase: A comparison of two matching models. *Journal of Vocational Behavior*, 42(3), 282–297.
- Mwabu, G., & Evenson, R. E. (1997). A model of occupational choice applied to rural Kenya. *African Development Review*, 9(2), 1–14.
- Naidoo, B., & Perumal, J. (2014). Female principals leading at disadvantaged schools in Johannesburg, South Africa. *Educational Management Administration & Leadership*, 42(6), 808–824.

- Njiru, F. (2013). *Factors affecting career progression of women in the corporate sector: A case study of standard chartered bank in Nairobi* [PhD Thesis]. University of Nairobi.
- Omolo, J. (2010). *The dynamics and trends of employment in Kenya*.
- Omolo, N. A. (2010). Gender and climate change-induced conflict in pastoral communities: Case study of Turkana in northwestern Kenya. *African Journal on Conflict Resolution*, 10(2).
- Osa Ouma, C., & Rambo, C. M. (2013). The impact of microcredit on women-owned small and medium enterprises: Evidence from Kenya. *Global Journal of Business Research*, 7(5), 57–69.
- Páez, A., Scott, D. M., & Volz, E. (2008). A discrete-choice approach to modeling social influence on individual decision making. *Environment and Planning B: Planning and Design*, 35(6), 1055–1069.
- Polacheck, H. (1991). *I Came a Stranger: The Story of a Hull-House Girl* (Vol. 135). University of Illinois Press.
- Pundo, M. O., & Fraser, G. C. (2006). Multinomial logit analysis of household cooking fuel choice in rural Kenya: The case of Kisumu district. *Agrekon*, 45(1), 24–37.
- Racene, A. (2016). Pilot Research Results of the Client Developing Programme for Women in Professional Crisis Situations. *Journal of Education, Society and Behavioural Science*, 1–14.
- Rosenfeld, R. A., & Spenner, K. I. (1992). Occupational sex segregation and women's early career job shifts. *Work and Occupations*, 19(4), 424–449.
- Sheridan, J. T. (1997). *The Effects of the Determinants of Women's Movement into and out of Male-Dominated Occupations on Occupational Sex Segregation*.
- Stier, H., & Yaish, M. (2014a). Occupational segregation and gender inequality in job quality: A multi-level approach. *Work, Employment and Society*, 28(2), 225–246.
- Stier, H., & Yaish, M. (2014b). Occupational segregation and gender inequality in job quality: A multi-level approach. *Work, Employment and Society*, 28(2), 225–246.
- Yeh, R.-S., & Granrose, C. S. (1993). Work goals of Taiwanese men and women managers in Taiwanese, Japanese and American owned firms. *International Journal of Intercultural Relations*, 17(1), 107–123.

Zeithammer, R., & Lenk, P. (2009). Statistical benefits of choices from subsets. *Journal of Marketing Research*, 46(6), 816–831.