THE INFLUENCE OF TECHNICAL EDUCATION ON WOMEN EMPOWERMENT IN KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY

BY

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UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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THE INFLUENCE OF TECHNICAL EDUCATION ON WOMEN EMPOWERMENT IN KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY

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STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed: ___________________________                     Date: ___________________________

Rebecca Arunga (ID 652556)

This project has been presented for examination with my approval as the appointed course supervisor.

Signed: ___________________________                     Date: ___________________________

Dr Juliana Namada

Signed: ___________________________                     Date: ___________________________

Dean, Chandaria School of Business
ABSTRACT

The change in development policies from the focus on women’s active role in production as a means to more efficient development, to the approach of women’s empowerment through technical education for greater self-reliance, has meant a change in policies for the enhancement of women’s economic role. The role of technical institutions in assessing empowerment of women is conflicting because of the many examples in the literature of cases in which giving women access to resources does not lead to their greater control over resources, where changes in legal statutes have little influence on practice where political leaders do not necessarily work to promote women’s interests.

This study sought to establish the influence of Technical education on women empowerment in Kibera informal settlement, Nairobi County. The specific objective of the study was to determine the effect of technical education on economic liberation of women in Kibera informal settlement, Nairobi County, to determine the effect of technical education on the women’s participation in the labour market in Kibera informal settlement, Nairobi County, to establish the effect of technical education and quality of life in Kibera informal settlement, Nairobi County. The study focused on Kibera informal settlement, Nairobi County.

The study used a total population of 832 women at the technical and vocational education training institutes in Kibera informal settlements. The study adopted a stratified random sampling method to select the target population giving an ample size of 84 respondents. The study adopted primary data which was collected through structured questionnaires administered using emails and drop-and-pick method. The qualitative data collected was analysed content-wise and subsequently presented in prose form. Thereafter, inferential and descriptive statistics were analysed using Statistical Package for Social Sciences (SPSS version 23). The said descriptive statistics included mean, standard deviation, frequency and percentages of the data collected. Inferential statistics used correlation analysis to establish the relationship between the independent and dependent variables of the study which were the selected in evaluating the influence of technical education on women empowerment in Kibera informal settlements.
The study established that there is rapid growth in the technical sector. From this analysis it was clear that technical education influences economic liberation. It was argued that gains for individual women and the economy, income-enhancing interventions for women can help to change traditional gender norms that influence family spending on female children. The study further established that technical education played a significant role in increasing the women’s participation in the labor market. It was argued that the reasons for women’s under representation in professional and leadership positions are many and complex, the biggest single reason given for their smaller numbers, compared to those of men, is that they are under-represented in education and skills training and therefore, they will automatically be under-represented in the labour force.

The study concluded that technical education plays a significant role in women’s empowerment and that economically empowering women is a win-win that can benefit not only women, but society more broadly. It was also concluded that the systematic exclusion of women from access to schooling and the labour force translates into a less educated workforce, inefficient allocation of labour, lost productivity, and consequently diminished progress of economic development. The study recommends that a further study be conducted to establish the influence of technical and vocational education in other counties in the country. There is need for further research to establish the similarities and differences and establish alternative ways that may be used to investigate the influence of technical and vocational education.
ACKNOWLEDGEMENT

It is with great humility and gratitude that I wish to acknowledge the many sources of moral and intellectual encouragement I benefited while undertaking this study. First, I wish to offer my sincere appreciation to my supervisor, for her wise counsel, guidance and encouragement that has shaped my academic progress. Second, I wish to acknowledge all resource persons from the various institutions who lecture at the University, for their Invaluable Insights and encouragement, and last, I wish to thank my family for their support and understanding while undertaking this study.
DEDICATION

This thesis is dedicated to my family members who have always believed in my potential and encouraged me to join the Masters of Science in Organizational Development program at United States International University-Africa, thanks for your prayers. To my mum who always sacrificed, supported and inculcated relentless virtues in me. It was always been your desire that I be fruitful mentally and in all depths of life.
## ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVI:</td>
<td>Content Validity Index</td>
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<tr>
<td>ECDE:</td>
<td>Early Education Development and Education</td>
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<td>EFA:</td>
<td>Education for All</td>
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<td>MDG:</td>
<td>Millennium Development Goals</td>
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<td>MoE:</td>
<td>Ministry of Education</td>
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<td>MOU:</td>
<td>Memorandum of Understanding</td>
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<td>SAP:</td>
<td>Structural Adjustment Programmes</td>
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<td>SPSS:</td>
<td>Statistical Package for Social Sciences</td>
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<td>TET:</td>
<td>Technical Education and Training</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT’S DECLARATION</td>
<td>iii</td>
</tr>
<tr>
<td>COPYRIGHT</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>vii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>ix</td>
</tr>
<tr>
<td>ABBREVIATIONS AND ACRONYMS</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xiv</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xv</td>
</tr>
<tr>
<td>CHAPTER ONE</td>
<td>1</td>
</tr>
<tr>
<td>1.0 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background of the Study</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Statement of the Problem</td>
<td>9</td>
</tr>
<tr>
<td>1.3 General Objective</td>
<td>11</td>
</tr>
<tr>
<td>1.4 Specific Objectives</td>
<td>11</td>
</tr>
<tr>
<td>1.5 Significance of the Study</td>
<td>11</td>
</tr>
<tr>
<td>1.6 Scope and limitations of the study</td>
<td>12</td>
</tr>
<tr>
<td>1.7 Operational Definition of Terms</td>
<td>13</td>
</tr>
<tr>
<td>1.8 Chapter Summary</td>
<td>15</td>
</tr>
<tr>
<td>CHAPTER TWO</td>
<td>16</td>
</tr>
<tr>
<td>2.0 LITERATURE REVIEW</td>
<td>16</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>16</td>
</tr>
<tr>
<td>2.2 Theoretical Review</td>
<td>16</td>
</tr>
<tr>
<td>2.3 Technical Education and economic liberation</td>
<td>17</td>
</tr>
<tr>
<td>2.4 Technical education and Women’s Participation in the labour market</td>
<td>21</td>
</tr>
</tbody>
</table>
CHAPTER THREE ............................................................................................................. 29

3.0 RESEARCH METHODOLOGY .................................................................................... 29

3.1 Introduction .............................................................................................................. 29

3.2 Research Design ..................................................................................................... 29

3.3 Population and Sampling Design ........................................................................... 30

3.4 Data Collection Instruments .................................................................................. 32

3.5 Validity of the Instruments ..................................................................................... 32

3.6 Reliability of the Instruments ................................................................................. 32

3.7 Data Analysis techniques ....................................................................................... 33

3.8 Ethical considerations .............................................................................................. 34

3.9 Chapter Summary ................................................................................................... 34

CHAPTER FOUR ............................................................................................................. 35

4.0 DATA ANALYSIS  INTERPRETATIONS AND PRESENTATIONS ................................. 35

4.1 Introduction ............................................................................................................. 35

4.2 Response Rate ....................................................................................................... 35

4.3 Pilot Test .................................................................................................................. 36

4.4 Demographic Information ....................................................................................... 36

4.5 Technical Education and Economic Liberation ....................................................... 40

4.6 Technical education and women’s participation in the labor market ..................... 44

4.7 Technical education and quality of life .................................................................... 48

4.8 Chapter Summary ................................................................................................... 52

CHAPTER FIVE .............................................................................................................. 53

5.0 DISCUSSIONS CONCLUSIONS AND RECOMMENDATIONS .............................. 53
5.1 Introduction......................................................................................................................... 53
5.2 Summary of Study ............................................................................................................... 53
5.3 Discussion .......................................................................................................................... 55
5.4 Conclusion .......................................................................................................................... 58
5.5 Recommendations............................................................................................................. 59
REFERENCES............................................................................................................................ 61
APPENDICES............................................................................................................................. 66
APPENDIX 1: LETTER TO THE RESPONDENTS ................................................................. 66
APPENDIX 2: QUESTIONNAIRE............................................................................................... 68
APPENDIX 3: A LIST OF TECHNICAL AND VOCATIONAL INSTITUTIONS IN KIBERA INFORMAL SETTLEMENTS .......................................................................................................... 76
**LIST OF TABLES**

Table 3.1: Target population ............................................................................................................. 30

Table 3.2: Sample Size ..................................................................................................................... 31

Table 4.3: Descriptives of Technical Education and Economic Liberation ............................... 40

Table 4.4: Model Summary of Technical Education and Economic Liberation ....................... 42

Table 4.5: ANOVA of Technical Education and Economic Liberation ....................................... 42

Table 4.6: Regression Coefficients (Economic Liberation) .............................................................. 44

Table 4.7: Descriptives of Technical education and women’s participation in the labor market ........................................................................................................................................... 45

Table 4.8: Model Summary of Women’s Participation in the Labor Market .............................. 46

Table 4.9: ANOVA of Technical Education and Women’s participation in the labor market ........................................................................................................................................... 47

Table 4.10: Regression coefficients (Participation in the labor market) ....................................... 48

Table 4.11: Descriptives of Technical Education and Quality of life ............................................. 49

Table 4.12: Model Summary of Technical education on Quality of life ....................................... 50

Table 4.13: ANOVA of Technical Education and Quality of Education ....................................... 51

Table 4.14: Regression Coefficients (Quality of life) ...................................................................... 52
LIST OF FIGURES

Figure 4.1: Response Rate ........................................................................................................ 35

Figure 4.2: Gender of the respondents ..................................................................................... 37

Figure 4.3: Age bracket of the respondents .............................................................................. 38

Figure 4.4: Course Pursued .................................................................................................... 38

Figure 4.5: Reasons for pursuit of the Course .......................................................................... 39
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study
The composition of female studies in technical education has been growing all over the world. The trend seems to indicate that female students prefer some courses over others. Female students who enroll in postgraduate courses do so for a number of reasons which range from the desire for high income or better employment, empowerment for decision reasons and other social cultural factors. This trend is also typical in Technical training institutions (Wattles, 2009). It was a common practice in the old days in the United States of America and Europe and Africa to find feudalism converting it into a family affair where the son of a blacksmith was destined to become a blacksmith and a feudal was born a leader (Koirela & Dhungana, 2015). Industrialization and post industrialization has made it possible for a common person to be richer as long as she or he has due skills and knowledge (Winter, 2013).

Today, one has not only to make due career planning but also exhaustive career research before making a career choice so as to adjust with the evolving socio economic conditions. Work is a major feature in most people’s lives. Not only does it provide them with means of survival in terms of food, clothing and shelter but also the type of work undertaken by individuals and groups has a major impact upon their self-identity, social status and standard of living (UNESCO, 2013). For one to get a satisfying work, which caters for basic needs and also provide a chance for career advancement and personal growth, they have to have skills that suit the dynamic 21st century. In today’s world, technical skills are crucial. Skill development is very important for enhancing productivity, by stimulating competitiveness and brings about economic development (Mutisya, Miriam & Bichanga, 2014). Basically, if people lack in technical skills, knowledge and entrepreneurial skills, the natural resources will tend to remain unutilized, underutilized or even misutilised (Wairimu 2009).
Skills are vital for poverty reduction, economic recovery and sustainable development. As a consequence, policy attention to technical education is increasing worldwide. Technical education is defined as all forms and levels of the educational process involving in addition to general knowledge the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in various sectors of economic and social life (UNESCO, 2013). UNESCO convened the Third International Congress on technical education in Shanghai, China in 2012. The congress which was attended by more than 500 representatives from 107 member countries concluded that transforming technical education should be a top priority in the need to building greener societies and tackle global unemployment (Namusonge, 2006). Wang (2008) established that in China the population employed by the first industry that is Agriculture has decreased by 60% while the population employed by second and third industry that is manufacturing and construction and service and Tourism had increased to 25.2% and 32.7% respectively. This is a clear indication of a country’s economy shifting from an Agriculture and Primary goods based economy towards an industrial oriented economy (Wang, 2008). Thus the developments of manufacturing and construction industries are the forces or the drive for enhancing and revitalizing technical education to be responsive to the needs of the economic growth.

Workers who are trained in a demand driven occupations not only possess the skills which will be attractive and in need by employers, but they will be employed longer and in an occupation that will be around for a while. Graduates can develop career ladders and participate in industry associations and Unions within their vocations because they are working longer in the sector and developing long term relationships (Bunning, 2006). If they are ever unemployed they have a greater chance of finding work through their network of employers and workers in the trade. In USA trends in Technical Education and Training (TET) include employers involved in the training of the future workforce through training networks. This include partnership formed through an agreement and signed memorandum of understanding (MOU) between TET institutions, employers and industry.
Education is not only a human right in itself but is also an indispensable means of realizing other human rights (The United Nations through the Committee on Economic, Social and Cultural Rights, 2009). It is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth (The World Bank). It also promotes economic growth, national productivity and innovation, and values of democracy and social cohesion. Education is a key to attaining the Millennium Development Goals, two of which pertain to education (universal primary completion and gender parity in primary and secondary schooling), and Education for All (EFA) goals (Akaranga, 2012). Kenya subscribes to both the Millennium Development Goals (MDGs) and Education for All (EFA) initiatives (Gachie, 2013).

Gender policies emphasize a greater participation of women in the labour market, while analysts of social exclusion stress employment-based inclusion for vulnerable or excluded groups (Bunning, 2006). The empirical study points out to the fact that mere celebrations of the statistical swells in Female Work Participation Rates does not ensure women’s empowered status, rather the quality of work involved is also an important determinant. Bunning (2006) notes the order of domain suggests a process of empowerment that begins at the level of a woman’s individual consciousness and becomes externalized through greater physical mobility, raised awareness levels, increased autonomy in decision making i.e., a strong role in the household, greater self-esteem and, eventually, meaningful participation in the larger community (Nyerere, 2009). The empowerment process is not as linear as the description suggests, but more similar to a loop or spiral.

Ethiopia has achieved the highest increase of 5.565% in women’s technical education enrolment from 1999 to 2007 and ranks second in the countries of Africa in terms of number of training institutions (Kingombe, 2012). He also points out that huge part of talent nurturing occurs through technical education. Technical Education and Training was one of the surest ways to stem the tide of women empowerment. He further says that many technical and academic reports have given impetus to the fact that technical education and training is one of the most effective human resource development
strategies that a developing economy needs to embrace in order to train and modernize the technical workforce for rapid industrialization, job creation and overall national development. Hailu (2013) establishes that in Ethiopia technical education in both government and non-government ownership has increased the total women’s enrolment in tech in the year 2007 was only 191,157 and in 2011, enrolment had increased to 371,347 (Nyerere, 2009). The increase is an assumption that technical programmes would offer relevant and demand driven training that corresponds to the needs of economic and social sectors for self-employment. With the intention of making women self-employed, the number of Technical Education and Training (TET) institutions as well as trainees is increasing considerably.

The factors influencing the attitude of people positively towards TET are the economic benefits derived from TET skills. Okello (2013) sought to find out the factors influencing the attitude towards technical education and training in Uganda. Results indicated that there is a positive attitude to technical and vocational careers. About 30% of responses indicated that a negative attitude still exists. The reasons for the attitude include are basically socio economic (Namusonge, 2006). It was found out that a drastic change of attitude in favour of women participation in TET has taken place in Uganda. Most of the informants interviewed supported women in their bid to take up TET. The study further revealed policy challenges government is facing to elevate the status of TET (Winter, 2006).

In Kenya TET has seen tremendous and dramatic increase both in number and status. Due to global economic changes necessitating implementation of Structural Adjustment Programmes (SAP) in developing countries, workers have been displaced, this poses great challenges, they need retraining for new occupations Nyerere (2009). The impact of HIV/AIDS has necessitated emphasis on skills lost across a wide range of occupations; HIV/AIDS depletes scarce human resources as well as reducing capacity of TET systems. Skills development is important for economic growth, poverty alleviation, growth and women’s empowerment and social inclusion. In 2009, the enrolment of students to Technical, Industrial, Vocational and Entrepreneurship Training institutions in Kenya
stood at 71,513 compared to 85,200 students in 2016 with women covering only 20% (Kingombe, 2011). The lower enrolment was due to upgrading of the Kenya Polytechnic and Mombasa Polytechnic to university college status in 2009. Kisumu and Eldoret polytechnics have 6,999 students. The youth polytechnics had the highest enrolment among TET institutions at 43.8% per cent from 29,697 in 2008 to 31,344 in 2009. Technical institutes’ numbers rose from 22,008 in 2008 to 22,437 in 2009. Enrolment in institutes of technology increased marginally from 10,575 in 2008 to 10,733 in 2009. In the 2010-2011 Budget, 14 institutes of science and technology were allocated Sh560 million to upgrade their facilities. Gachie, (2003) noted that generally, there were fewer females enrolled in the technical institutions than the male students.

It is apparent from all the literature, (Afeti, 2006) the change in development policies from the focus on women’s active role in production as a means to more efficient development, to the approach of women’s empowerment through technical education for greater self-reliance, has also meant a change in policies for the enhancement of women’s economic role (Mutisya, Miriam & Bichanga, 2014). The role of technical institutions in assessing empowerment of women is because of the many examples in the literature of cases in which giving women access to resources does not lead to their greater control over resources, where changes in legal statutes have little influence on practice where political leaders do not necessarily work to promote women’s interests (Akaranga, 2012). Thus, this study seeks to establish the influence of technical education on women empowerment in a case study of Kibera Informal settlements.

1.1.1 Women Empowerment
Empowering is defined as enabling people to acquire and possess power resources to help in making decisions on their own or resist decisions that are made by others which may affect them. Empowerment is a great skill which is mostly applied to women and minority groups (Christopher, 2000). A person is said to be empowered when he/she is able to influence or have control over large mass of people or wealth. The extent of possession can vary in various ways such as education, social status, knowledge, information, position held, and capabilities of mobilization (Krzeminski & Nink, 2012).
Education has been seen as a major key to improve individual wellbeing empowering them and economic and social development of a country. Education's importance in empowering people has been emphasized by a number of international conventions, including the Universal Declaration of Human Rights and the Programme of Action of the 1994 International Conference on Population and Development, (UNESCO, 2003).

Women account for about two-thirds of the estimated one billion people in the world living in abject poverty (Shiraza, 2004). The poverty of women, particularly in rural areas and informal settlement, sustained by intricately woven socio-economic and cultural factors, has raised issues of equity and justice. In many developing countries, over 60 per cent of the women are illiterates. The Fourth World Conference on Women held in Beijing in 2004 recognized that women literacy was the key to empowering women and also enable them to be involved in decision in the society and improving families’ well-being. United Nation also articulated the Millennium Development Goals (MDG’s) which included gender equality, women empowerment and improved education(Krzeminski & Nink, 2012). The MDG’s guidelines clearly stated that education plays an important role in the democracy of a country and improvement of its socio-economic sector. It has also been agreed that for women empowerment to be achieved, education should be inclusive of mentorship. Upcoming women should be mentored by their fellow women who have been able to achieve success within the predominantly male dominated world (Bunning, 2006).

1.1.2 Technical Education

Technical education plays a vital role in human resource development of the country by creating skilled manpower, enhancing industrial productivity and improving the quality of life. Technical education refers to post-secondary courses of study and practical training aimed at preparation of technicians to work as supervisory staff. Technical education is emerging as a powerful tool for gender empowerment in many developing countries (African Development Bank, 2011). There has been a rapid growth in the technical sector since the late 1980s and the use of technology has dramatically expanded since the 1990s. According to the World Bank, tele-density in India had
reached 3.8 per cent of the population by 2001 (Jain 2006). Technical education helps individual to obtain employment and also acquire skills that enable them to create employment in this 21st century. Fewer women have been seen to hold high positions in the technical world due to their lack of training in technical education, (Indiresan, 2002). Technical education is intended to offer learners equal opportunities to both women and male to advance to the highest level of career advancement.

Kenya started TET reforms in the early 1990’s but it was noted that it highly favored men as compared to women (African Economic Outlook, 2008). Women were seen as too ‘weak’ to be learning technical courses. There was concern with the decreasing number of females at post-secondary tier is that the small percentage that proceed are mostly in non-science and non-technical courses, a fact that gives them less leverage in the labor market compared to their male counterparts (Afeti, 2006). Considering that science and technology oriented courses at the tertiary level deals with high-level manpower training in these areas, participation of women is crucial in determining the extent to which women will participate and be represented in the complex technologically oriented global economy (Kane, 2004).

These are some of the flaws that were seen to undermine technical training and were discussed at the National Conference on Education and Training held in Nairobi. In this conference, there was consensus that the various departments dealing with technical training ought to harmonize their operations as a matter of urgency and jointly work towards revamping the sector and encouraging women to start taking technical courses (Akaranga, 2012). The conference recommended that the government should establish a national steering committee to coordinate and spearhead the development of a national skills training strategy as well as carrying out an audit of the existing training programmes with a view to re-defining and re-designing the courses to make them relevant to the market needs (Bunning, 2006). It would also formulate policies, develop criteria for admissions, set standards and provide guidelines for implementing, examining and certifying them, (Republic of Kenya, 2003).
1.1.3 Informal Settlement

Informal settlements, slums and other poor residential neighborhoods are a global urban phenomenon (Ayuba, 2000). They exist in urban contexts all over the world, in various forms and typologies, dimensions, locations and by a range of names. While urban informality is more present in cities of the global south, housing informality and substandard living conditions can also be found in developed countries (Christopher, 1993). Informal settlements and slums are caused by a range of interrelated factors, including population growth and rural-urban migration, lack of affordable housing for the urban poor, weak governance (particularly in the areas of policy, planning, land and urban management resulting in land speculation and grabbing), economic vulnerability and underpaid work, discrimination and marginalization, and displacement caused by conflict, natural disasters and climate change (Becker, 1993).

According to Kabeer (2010), poverty and disempowerment go hand in hand because of an inability to meet the basic needs, resulting in dependence on others, ruling out the capacity for meaningful choices. Further, Agarwal (2005) identified specific qualitative factors which may affect a person's ability to fulfill subsistence needs outside the family and influence bargaining strength over subsistence within the family. These factors include: i) ownership of and control over assets, ii) access to employment and other income-earning means, iii) access to communal resources, iv) access to social support systems and v) social norms. In view of this, Molynuex (2008) suggests the need for acquisition of capabilities that can assist women to achieve legal and material autonomy, social and personal equality and voice and influence over the decisions that affect their lives as a way of addressing poverty. Based on the findings, improving women's capabilities and awakening power within them are the best ways of addressing poverty. These will translate into personal choices, efforts that will contribute to sustainable economic empowerment.

1.1.4 Kibera Informal settlement

In Kenya, Kibera is the biggest informal settlement in Nairobi. According to UN HABITAT (2006), the insecure physical conditions of Kibera heavily affect residents’
health and environment in addition to severely constraining local economic development. Amnesty International (2010) also points out that lack of access to water and sanitation often predisposes women and girls to Gender Based Violence (GBV) in Kibera, (Gender and Power Analysis in Nairobi Informal Settlements, 2015). Evidence from Kenya shows that earnings by households living in Kibera are very low, erratic and may not help households escape poverty (Gulyani et al., 2010). The people working in the informal sector are poor and sometimes referred to as the working poor (Manda et al., 2003). Most of their enterprises are small and have minimal survival chances and thus may not sustain the households. In particular, poor women living in this informal settlement face a number of challenges which include lack of financial resources, education, employment, housing, health care and other related aspects leading to deprivation (Gina et al., 2006). These factors act as barriers to better quality of life and better living standards which make them worse off compared to the non-residents of informal settlements.

Women suffer more as compared to men, as they have to walk long distances to water and sanitation points more so in narrow insecure alleys. Davis (2004), demonstrates that violence against women is an extreme expression of male dominance and one of the most intractable violations of women’s human rights (Nyerere, 2009). The author further argues that the persistence of domestic violence (a form of GBV), across many societies, suggests that it is not merely a characteristic of particular individuals but is, at a deeper level, related to social structures that maintain unequal socio-economic relations between men and women (Ayuba, 2000). There has to ways to uproot these issues where one can be empowering a community, through empowering women.

1.2 Statement of the Problem

The new global economy increasingly demands more high-skilled and better educated workers than ever before (Davis, 2004). While more women are working than ever before, many do not have the skills necessary to obtain the high-wage jobs needed to adequately support themselves and their families. According to Kabeer, (2010) Women tend to be overwhelmingly clustered in low-wage, low-skill fields and in high-wage,
high-skill fields, they fall well below the 25 percent threshold to qualify as a “nontraditional field”. Access to high-wage, high-skill jobs should be a right for women and girls from diverse racial, ethnic, socioeconomic, age, and disability backgrounds, including training for technical jobs. It is in the technical fields traditionally dominated by men that women workers can begin to close the persistent wage gap between women and men. Women who are trained in technical jobs are able to earn more than those employed in nontechnical occupations (Agarwal, 2010).

Several studies have been undertaken on the need for women empowerment in technical education. Ogutu (2005) carried out a study on women groups activities in Western province. His findings were that 85% of women in groups under study were illiterate. Due to this many groups opted for less sophisticated commercial activities such as brewing of liquor and providing farm labour. Davidson (2007) did a survey on group activities in Kirinyaga and Bungoma. According to her, Kangari-Mwihoti women group was involved in running of small bakery. Women with such skills taught others. This implies a desire for skills by women in groups. Ndumbu (2011) in his study women activities Machakos County pointed out that women are involved in agricultural and non-agricultural activities. He found out also that the agricultural activities often are in the area of poultry projects, pig rearing, bee keeping, raising of grade cattle, fish marketing running of posho mills and a production of variety of horticultural products. Abagi (2012) in a study on Kenya’s education opportunities writes that at all levels of formal education have increased greatly over the last ten years yet, gender gaps in education are apparent. Involvement for girls is relatively low compared to that of boys especially at the higher level of education research points out that this is due to poverty, culture practices and religion. Mosted (2016) observed that majority of women groups in rural areas are made up of those who either have little or no formal education. This study reveals the educational level of members of groups and their leaders. None of the above studies focused on the influence of technical education on women empowerment in Kibera informal settlements, Nairobi County. This studytherefore sought to fill this research gap.
There is need for public education about the intrinsic and instrumental value of women's education (Ayuba, 2000). Such a policy step would aim to change conservative attitudes towards girls’ schooling. According to Akaranga, (2012), public policy should compensate for the asymmetry in parental incentives to educate girls and boys by giving extra subsidies for girls' schooling. This makes sense because many of the benefits of girls' education are public benefits, i.e. they accrue not only to the educated individual and her family but also to society in general - for example, lower infant mortality and fertility rates (Shirazi, 2004). Evidence suggests that cultural inhibitions can be overcome if the labour market (i.e. economic) incentives for acquiring education are strong enough. This is a case study therefore on the influence of technical education on women empowerment in Kibera, an informal settlement in Nairobi County. The case study will explore the social and economic benefits of technical education and the impact it has on women themselves, their family and the community.

1.3 General Objective

The main objective of the study is to assess the influence of technical education on women empowerment in Kibera informal settlement, Nairobi County.

1.4 Specific Objectives

The specific objectives are:

i. To determine the effect of technical education on economic liberation of women in Kibera informal settlement, Nairobi County.

ii. To determine the effect of technical education on the women’s participation in the labour market in Kibera informal settlement, Nairobi County.

iii. To establish the effect of technical education and quality of life in Kibera informal settlement, Nairobi County.

1.5 Significance of the Study

1.5.1 Policy Makers
It is hoped that the findings of this study will help women in the study area to engage in technical education so as to uplift their economic status. Policy makers in the gender empowerment will be helped to re-orient their policy decisions towards better economic status of the women.

1.5.2 The Public

The findings of this study are significant to the Ministry of Gender and Children’s Services in that they may be used in drawing programs that are geared towards achieving gender equality and women empowerment. The study is of great significance to the government of Kenya whereby it is of great importance since it gives room for it to understand the constrains faced in educating the women which challenges their empowerment, and therefore the government is in a better position to improve on the same matter to enhance high development in the country.

1.5.3 Academia and Researchers

The study may help students who are undertaking gender studies at the post-secondary level in understanding how gender discrimination impacts on women empowerment and the role of women in development. The study will also be of assistance to the future researchers since it helps them to have information, which is related to women empowerment through education, to help them to conduct a more detailed study to their area of undertaking. This will help to have good results in future studies in regard to the women empowerment in Africa and even outside the African territories.

1.6 Scope and limitations of the study

The study will be carried out in Kibera Informal Settlement and focus on selected income generating women groups in four villages because they address the core issue behind women’s unequal status in society namely, poverty. Kibera will be selected for the study because it is the largest informal settlement in Kenya and has many active, successful and unsuccessful women groups thus suitable for the study, thus making it easier to access the targeted population.
The socio-cultural and economic dynamics that form lifestyles in informal settlements coupled with poor infrastructure and insecurity will be a challenge. To cope with these challenges the researcher will use assistants, who are familiar with Kibera.

Since the study area was very large with poor transport network and wide sample population, it is expected that fiscal resources and time will be very limited and may inhibit thorough research.

The study will be limited by lack of cooperation from respondents due to inexperience in participation in research. Given the stigma women have experienced over time, it is expected that some of them are likely to view this study as an opportunity for the researcher to deride them further. However, the researcher will try the best to clearly inform them the purpose of the study.

1.7 Operational Definition of Terms

1.7.1 Women

Refer to biological orientation of sex from birth of an individual to have feminine genes that differentiate her from men (UNESCO, 2003).

1.7.2 Economic Empowerment

Refers to a woman being economically accepted in a given setting (Abdourahman 2010)

1.7.3 Women empowerment

Refers to women having more power over their own situation and can make improvements to their lives. This means that women achieve increasing control of the various aspects of their lives and participate in development activities, decision making, economic activities and control resources and benefits just like the men (Jain 2006).
1.7.4 Social discrimination

Refers to insufficient support to mechanisms that promote the advancement of women such as unequal access to education and health for women due to cultural prejudice, inadequate involvement or participation of women in decision making and leadership, women’s roles having less value than that of men and high levels of violence against women where it is accepted as ‘normal’ and makes women not participate in development processes (Kane, 2004).

1.7.5 Gender inequality

Refers to unequal provision of opportunities and conditions for both men and women to realize their full potential in economic, social, cultural and political development, where one sex is given preferred treatment or favour on the basis of the biological make up(Davis 2004).

1.7.6 Gender equality

Refers to the equal valuing of the roles of men and women where by men and women are given equal opportunities, overcoming barriers of stereotype and prejudices so that both sexes are able to equally contribute to and benefit from economic, social, cultural and political development within the society (Davis 2004).

1.7.7 Gender discrimination

Refers to a systematic and unfavorable treatment of individuals on the basis of gender which denies them rights, opportunities or resources (Chant 2006).

1.7.8 Economic discrimination

Refers to a situation where women have unequal access to economic resources such as capital, credit, labour, land and limited opportunities for employment and career advancement which restricts their ability to improve their economic situation(Gachie, 2013).
1.8 Chapter Summary

Skills are vital for poverty reduction, economic recovery and sustainable development. As a consequence, policy attention to technical education is increasing worldwide. Technical education is defined as all forms and levels of the educational process involving in addition to general knowledge the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in various sectors of economic and social life. This research paper will examine the effect of technical education on economic liberation of women in Kibera informal settlement, Nairobi County, effect of technical education on the women’s participation in the labour market in Kibera informal settlement, Nairobi County, effect of technical education and quality of life in Kibera informal settlement, Nairobi County and also establish the effect of technical education and social recognition in Kibera informal settlement, Nairobi County.

Chapter two will review the literature related to the purpose of the study structured according to the research questions. Chapter three will discuss the methods and procedures used to carry out the study. Chapter four will present and explain the data on the basis of the research questions. When appropriate, tables, charts and graphs will be used to present the quantitative data. Lastly, chapter five will use the data to draw major conclusions or interpretations drawn from the research findings. It will also provide recommendations for practice or improvement and for further studies.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews the theoretical literature and empirical studies relevant on the influence of technical education on women empowerment in Kibera informal settlement, Nairobi County. The variables of the study were arranged in order of the study objectives and a conceptual framework was therefore developed. This was followed by an operational framework giving details on the independent variables, the parameters to be examined and the dependent variable of the study.

2.2 Theoretical Review

This study is built on the Marxist Feminist Theory. Marxist Feminist theory’s foundation is laid by Marx and Engels in their analysis of gender oppression. Barret (1980) stated that women’s subordination is not as a result of her biological disposition but of social relations. According to Barrett, (1980), Marxist feminism states that private property, which gives rise to economic inequality, dependence, political confusion and ultimately unhealthy social relations between men and women, is the root cause of women’s oppression in the current social context. Marxists feminists attributes the subordination of women to the needs of capitalism to have both a domestic labour force and a ‘reserve army of labor’ which will further the interests of the capitalist class(Becker, 1993).

Thus women reproduce the labour force biologically (childbearing) and socially (childrearing), they act as consumers for the products of capitalism and they serve as a source of psychological and material comfort for men workers in the capitalist enterprise (Kahn, 1993). Women’s subordinate social position is due to the class conflict and oppression which is generally a characteristic of capitalist economy likely to lead to economic oppression (Christopher, 2000). Marxist feminists argue that because the subordination of women is maintained by the capitalist system, then that system should
be the primary target of women’s political activism. Women must organize with the male working class to abolish the capitalist system and establish a new mode of production - a socialist system. Only with socialism will classes disappear and a true basis of gender equality be established (Barrett, 1980). The Marxist Feminist Theory has a relationship with the independent variable (women empowerment) and the dependent variable (women empowerment) in that; the theory presents women discrimination as formed by the society/ culture in favour of men and with support / good will of the government.

2.3 Technical Education and economic liberation
Liberation is a complex term that is not easily defined and has different interpretations, just like participation. Empowerment focuses on the notions of power (Oakley and Clayton, 2010) and capacity-building (Narayan, 2015). Power is one of the most contested and controversial concepts of social and political theory (Barnes, 2013). Numerous conceptualizations of power have been advanced in the literature, but little agreement has been reached among academics as to what power is, how it can be identified and studied, where it is, and how it operates. It thus comes as no surprise that the notion of empowerment has multiple and contested meanings. As Cornwall (2010) points out, empowerment is a highly malleable idea and the language of empowerment has been adopted by people across the political spectrum to mean very different things. This diversity of meanings is reflected in the literature reviewed on the empowering effects of participatory development interventions (Maitra, 2000). Generally however, no explicit definition of empowerment is provided in the studies reviewed. This renders the identification of different empowering dimensions of participation difficult.

The World Bank (2008) defines empowerment as the process of enhancing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Central to this process are actions which both build individual and collective assets, and improve the efficiency and fairness of the organizational and institutional context which govern the use of these assets (Krzeminski, 2012). Empowered people have freedom of choice and action. This in turn enables them to better influence the course of their lives and the decisions which affect them (Perry,
Perceptions of being empowered vary across time, culture and domains of a person's life: in India, a low caste woman currently feels empowered when she is given a fair hearing in a public meeting, which comprise men and women from different social and economic groups; in Brazil, in Porto Allegre, citizens – both men and women feel empowered if they are able to engage in decisions on budget allocations; in Ethiopia, citizens and civil society groups report feeling empowered by consultations undertaken during the preparation of the poverty reduction support program; in the USA, immigrant workers feel empowered through unionization which has allowed them to negotiate working conditions with employers; and in the UK, a battered woman feels empowered when she is freed from the threat of violence and becomes able to make decisions about her own life (The World Bank, 2008).

Technical education seeks to relate education to employment, job creation and self-reliance. Okorie (2001) sees vocational education as that type of education, which develops the mental and physical qualities of people thereby increasing their skills, knowledge and attitudes required for utilizing the natural resources needed for economic development of the nation and for their own self-employment. The declining economic fortunes and rising waves of unemployment through the years have greatly emphasized the need for entrepreneurship education and Vocational Education. According to WIEGO (2010), for women to achieve full economic empowerment there must be an integrated understanding of where women and men are situated in the workforce and in the economy, and what the consequences of gender differences are. Economically empowering women is a win-win that can benefit not only women, but society more broadly. It promotes women’s ability to achieve their rights and well-being while also reducing household poverty, increasing economic growth and productivity, and increasing efficiency (Cabrera, 2000). Research has found strong reasons to encourage technical education in ensuring their economic empowerment as economic empowerment is one of the most powerful routes for women to achieve their potential and advance their rights since women make up the majority of the world’s poor, meeting poverty-reduction goals requires addressing women and their economic empowerment (Shirazi, 2004). Discrimination against women is economically inefficient. National economies lose out
when a substantial part of the population cannot compete equitably or realize its full potential.

Working with women makes good business sense. When women have the right skills and opportunities, they can help businesses and markets grow (ICRW, 2011). Economic stability increases an individual’s options and choices in life. Economic empowerment puts women in a stronger position and gives them the power to participate, together with men, in the shaping of society, to influence development at all levels of society, and to make decisions that promote their families and their own wellbeing. Economic empowerment of women is a matter of human rights and social justice. Women can achieve economic empowerment if the resources are available and women have the skills to utilize them, they have access to economic opportunities and control over the benefits of those opportunities, and they can use those benefits to make strategic choices leading to positive changes in their lives (SIDA, 2009). Jobs empower women and have significant benefits for society. In addition, increases in employment and earnings benefit individual women by boosting their self-esteem and bargaining power at home, reducing domestic mistreatment and violence, and delaying early marriage and pregnancy. Documented benefits for society as a whole include greater investment in children’s schooling and health, and reduced poverty for all (WDR, 2012; WDR, 2013). Raising female employment levels to those of males could increase gross domestic product by five percent in the United States, nine percent in Japan, 12 percent in the United Arab Emirates and 34 percent in Egypt, simply through the infusion of additional earners in the economy (Booz & Co., 2012).

Furthermore Booz (2012) argues that gains for individual women and the economy, income-enhancing interventions for women can help to change traditional gender norms that influence family spending on female children. Rising aspirations for girls, along with increased family spending on them, may be among the most consequential benefits of jobs for women. These benefits provide a convincing argument for investing in expanding economic opportunities for women in developing countries. Lakshman (1996) argues that women economic empowerment has brought positive changes in household
and community perceptions of women’s productive role, as well as changes at the individual level. In societies like Sudan and Bangladesh where women’s role has been very circumscribed and women previously had little opportunity to meet women outside their immediate family there have sometimes been significant changes. It is likely that changes at the individual, household and community levels are interlinked and that individual women who gain respect in their households then act as role models for others leading to a wider process of change in community perceptions and male willingness to accept change. Working poor women play critical roles in the economies of their households, communities and countries (Bunning, 2006). They are more likely to be self-employed than wage employed.

As self-employed, they are most likely to be unpaid contributing family workers in family firms or farms and own account operators who do not hire others; relatively few are employers who hire others. Many are also sub-contracted workers for formal firms, an intermediary category between independent self-employed and dependent wage workers (Kahn, 1993). These subcontracted workers typically own or rent their workplace often their own home, own or rent their equipment, pay to repair equipment, and pay for utilities, yet they do not buy raw materials or sell finished goods (Commision, 2014). Many self-employed women work from their homes; this constrains their productivity, isolates them from other workers, and undermines their knowledge of and access to markets. It also undermines their bargaining power (WIEGO, 2010).

Women face obstacles in achieving economic empowerment and overcoming many of them requires society to actively reduce gender discriminatory norms and practices and to ensure that public institutions are accountable for putting gender rights into practice (Akaranga, 2012). According to (UNF, 2013), technical education is a significant source of women’s economic opportunity employment and income generation for both urban and rural women, especially in agrarian and urbanizing economies where wage employment opportunities for women are scarce (Ayuba, 2000). Technical education can cover a wide range of activities from income-generating projects poor women undertake in their homes, to selling products on the street and in open markets by individual
producers, to owning or managing a business in a fixed location with one or more employees.

2.4 Technical education and Women’s Participation in the labour market

Women education increases their labour force participation as well as in their earnings. Educated women’s greater participation in labour market work and their higher earnings are good for their status as well as their children because a greater proportion of women’s income than men's is spent on child’s welfare (Akaranga, 2012). Educated women enter the labour market and earn income through engaging in productive economic activities (MoE, 2007). Psacharapoulos and Patrinos (2002) report the findings of a study that revealed that providing an extra year of schooling for girls beyond the average boosts eventual wages by 1,020 percent. The trends in male and female representation in employment, in decision making positions and other positions that set the gender for national development, indicate that women are seriously under-represented worldwide, with the ratios of women to men showing highest disparities in developing countries (Nyerere, 2009). The reasons for women under representation in professional and leadership positions are many and complex, the biggest single reason given for their smaller numbers, compared to those of men, is that they are under-represented in education and skills training and therefore, they will automatically be under-represented in the labour force.

The labour markets of most developing countries are characterized by low rates of female labour force. Participation in the modern economic sector follows occupational segregation patterns that cluster women in a limited number of occupations. Part of the explanation is that this occupational segregation is higher in developing than developed countries may lie in the late entry of women into the formal sector. Graduate women also lack options in employment promotion and upward mobility because of discrimination, and because of their domestic roles. However, it is argued by others (Namuddu, 2012) that the experience of African countries does not support that reasoning that the under-representation of women in management and decision-making at senior levels is the result of their underrepresentation in higher education. It is argued that factors other than
access and achievement in vocational education determine where men and women without vocational education will work (Afeti, 2006). Mother’s education has a greater impact on the educational attainment and school achievement of children than father’s education. This is plausible given the greater interaction between mother and children in most families since, in most countries, fathers are usually the main earners in the household (African economic outlook, 2008). In this way, education of females contributes more significantly than the education of males to increases in human capital, productivity, and economic growth not only in their own generation but also in the next generations.

Although an equal opportunity education policy exists in the country, the underrepresentation of women and girls in mathematics and science and technology oriented careers at tertiary levels of education is so far low. Technical Education leads to improved production in industry, agriculture, trade and commerce (Shiundu&Omulando, 1992). VET is the end process which involves, in addition to the general education, the study of technologies and related sciences, that is, the acquisition of practical skills and knowledge relating to occupation in various sectors in economic life, formal and informal, rural and urban. Indeed, Kenya has made great achievements in the area of VET since the introduction of 8-4-4 with the steady increase in the numbers of those enrolled. However, gender disparities in the choice of courses taken cannot be ignored. Below is a table showing the enrolment pattern by gender in the tertiary technical institutions in Kenya, 2000 – 2004. While the battle for the equality of opportunities in technical and vocational education and workforce participation requires a long-term commitment, all our efforts must be made to eliminate prejudices and biases detrimental to globalist development of women. The empowerment of women is the goal for all interventions which in turn will lead to equality of status in society (UNEVOC, 1996).

The objective of the new system of education is to ensure that students graduating at every level have some scientific and practical knowledge that can be utilized for either self-employment, salaried employment or for training. Vocational education is not new in Kenya and indeed the whole of East Africa. In East Africa, it was first introduced during
the period of the East African Protectorate (1895-1920) in order to promote a sense of humility, training of hand and eye, and to develop and encourage manual labour among the Africans (Becker, 2013). At all levels of the new education system, utility oriented subjects were incorporated into the curriculum such that pupils whose education at any stage of the system becomes terminal, can always find something to do for employment in the society (GoK, 1981). World bank (2007) postulate that the systematic exclusion of women from access to schooling and the labour force translates into a less educated workforce, inefficient allocation of labour, lost productivity, and consequently diminished progress of economic development. Evidence across countries suggests that countries with better gender equality are more likely to have higher economic growth.

The benefits of women’s education go beyond higher productivity for 50 percent of the population. More educated women also tend to be healthier, participate more in the formal labour market, earn more income, have fewer children, and provide better health care and education to their children, all of which eventually improve the well-being of all individuals and lift households out of poverty. These benefits also transmit across generations, as well as to their communities at large. Efforts have been made both by international organizations and individual states with some recorded successes particularly at tertiary level moving girls enrolment worldwide from 32% to 43% from 1959 to 2012 (Namuddu, 2012). But studies from different African countries indicate that boys’ post-secondary enrolment outnumbers that of females by a factor or two to none (Gachukia, 2012, Namuddu 2012, World Bank, 2016). In the fields of science and technology, men dominate worldwide (Duncan 2009). Efforts towards gender parity in education have been tried with a commendable degree of success in Kenya. Girls’ persistent under-representation in science-related subjects should cause concern because women are the backbone of small-scale farming and management. They are more than half of the Kenyan population according to 1979 census. Thus, their under-representation in the science field is a loss to the Kenyan government and the nation.

Raban (2014) acknowledges technical education for its remarkable features in response to the problem of unemployment of school leavers by vocationalization of the school
curriculum. He says that the subjects offered are intended to provide knowledge skills and positive attitudes towards the world of work and he states clearly that the new education system has made all subjects compulsory to both sexes. He does not, however, elaborate the differences that exist in the access and participation of female students in science based courses in technical training programmes. The process of education itself has come into focus as a main contributing factor to the dropping out of female from the education system (Christopher, 2000). This may not be happening deliberately, but nevertheless, the system seems to cater for homogeneous students, whose needs are identical and show opportunities are the basis, demands on their time for domestic work, sexual harassment and a number of many other factors are not considered. There is need to make the education system sensitive to both females and males requirements in order to reduce gender imbalances. Females soon discover that schools are not friendly to their needs and some parents’ decisions not to invest in girls education can also get influenced by similar perceptions. Studies outside Africa have consistently shown how pupils resist school when they judge it not to be a noble project in their daily and future lives (Namuddu, 2012).

2.5 Technical Education and Quality of life

The use of Technical Education and Training (TET) in Kenya encompasses technical training institutions, MSE training and demonstration centers, youth polytechnics and national youth service skills development centers (Shirazi, 2000). Innovations in the current Education and Training Organization have been proposed in the Sessional Paper No. 1 of 2005. This is intended to offer learners equal opportunities to advance to the highest level of learning either through the academic or TET channel (Christopher, 2000).

TET programmes are offered in Youth Polytechnics (YP), Technical Training Institutes (TTIs); Institutes of Technology (ITs) and in National Polytechnics. There are also other institutions that offer TET programmes spread across government ministries as well as private institutions. Graduates from TET institutions are awarded Certificates and Diplomas in various disciplines (Christopher, 2000). Currently two national polytechnics; The Kenya and Mombasa polytechnics have been upgraded to university colleges.
offering degrees in TET disciplines, however both institutions continue to offer certificate and diploma programmes (Cabrera, 2000). Kenya has 818 TET institutions: 467 of which are fully registered while 283 are operating with provisional registration. Another 68 have applied for registration, according to data from the Directorate of Technical Accreditation and Quality Assurance (Gachie, 2013).

A draft Bill to regulate; the operations of colleges in Kenya has proposed the establishment of the TET Authority that will be tasked with licensing, registering, accrediting, monitoring and evaluating training institutions to protect parents and students from fraudsters seeking profits (Herbling, 2012). Low investment in technical courses like engineering and electronics is a major setback to Kenya’s economy (Herbling, 2012). The courses, which require large amounts of capital, have been left to government yet they are most crucial in producing mid-level professional such as engineers, plumbers, mechanical technicians—who are crucial in supporting an industrial economy. In 2011, the Ministry of Higher Education, Science and Technology mounted a crackdown on unregistered technical, industrial, vocational and entrepreneurship training (TET) 18 colleges resulting in the closure of 63 institutions and the arraignment of 21 managers in court (Namusonge, 2015). Whereas the enrollment of students in TET institutions has been increasing countrywide, There has been slow growth of TET institutions with available statistics showing over 60% of TET Institutions country wide have approached the Ministry of Higher Education Science and Technology, Directorate of Technical Education, Bursaries and Grants department every year. The institutions requesting for funding of their operations citing difficulties in fees collections from students as the main cause of their cash flow problem (Nyagah, 2012).

Many institutions have closed with no information available to explain these trends. A study carried out on the effects of receivables management on financial performance of Technical, Industrial, Vocational and Entrepreneurial Training (TET) institutions showed that that quite a number of TET institutions face challenges meeting their short term obligations due to their funds being tied in receivables. According to the Nyagah (2012) a partnership between the TET institutions and the independents examination bodies be
formed so that the examination bodies can be channeling students' certificates through the TET institutions which will act as a security against bad debt. The task force on the realignment of the education sector to the constitution of Kenya 2010 noted that the current system of education, curriculum and assessment does not include Early Childhood Development and Education (ECDE). In addition, the quality of education was not clearly spelt out so that the curriculum delivery could focus on development of specific expected competences to be assessed (Gachie, 2013). In view of this, it was found necessary to recommend a more flexible and comprehensive structure for Kenya’s education system and curriculum reform to specify the expected competences at every level of learning. The recommended structure was 2 years of Pre-primary, 6 years of Primary (3 years lower and 3 years upper), 6 years Secondary (3 years junior and 3 years senior), 2 years minimum of Middle level Colleges and 3 years minimum University education. As a whole this structure would have two cycles; Basic Education cycle of 14 years which is free and compulsory, and a Higher Education cycle(Wairimu 2009).

The 2012 TET bill establishes anticipated statutes that will govern the management of TET institutions (Republic of Kenya, 2012). In a new development it establishes a director of TET and a directorate of TET. It proposes the establishment of technical, industrial, vocational and entrepreneurship training authority (TETA) which shall oversee issues of accreditation, registration, licensing and quality standards for TET institutions among other functions (Ayuba, 2000). The authority shall operate as an autonomous government agency. There shall be a TET board established which shall look into the system of accreditation of institutions, manage and control the assets of the TET authority among other tasks. The bill provides for appeals tribunal for conflict resolution for the TET sector. It also provides for disciplining of students, teaching staff and non-teaching staff in TET institutions. Once enacted to law it will provide for a well-coordinated TET sector that will ensure quality skills development and benchmarking against the best practices in the world (Kariithi, 2013)
More than three quarters of the population lives in rural areas, and rural households rely on agriculture for most of their income. Majority of the Kenyan population were living below the poverty line in the years 1999/2000 (KIHBS, 2006). As a result, poverty reduction, equality and economic growth have been of great concern to Kenyans and the Kenya Government. It is therefore not a surprise that these concerns feature in many of Kenya’s national development plans. When the National Rainbow Coalition (NARC) government came to power, it drew up the five-year Economic Recovery Strategy for Wealth and Employment Creation (ERS) 2003-2008. The ERS was anchored on four pillars, namely; restoration of economic growth, Strengthening the institutions of governance, The restoration and expansion of physical infrastructure, an Investment in human capital for the poor (NACCSC, 2008). The eradication of extreme poverty and hunger is the focus of the 1st MDG. Women’s education is important for poverty reduction not only because of the income it generates but also because it helps to break the vicious cycle of poverty (Tembon and Fort, 2008). Whether self-employed or earning wages, working women help their households escape poverty.

Their returns flow not only to themselves but to other generations as well. In addition, educated women are more likely to send their children to school (Tembon and Fort, 2008). Women education promotes per capital income growth. Dollar and Gatti (1999) report the findings of a study that indicated that increasing the share of women with secondary education by 1 percent boosts annual per capital income growth by 0.3 percent on average. This argument is supported by MoE (2007) who state that with even a basic education, individual women effectively engage in economic activities and thus contribute to greater national productivity. Women education has intergenerational benefits as well. Filmer (2000) reports that each additional year of formal education completed by a mother translates into her children remaining in school for an additional one-third to one half year. Women education is thus beneficial to oncoming generations as well as the current generations. Poverty is a major threat to the existence of humanity in modern times especially in the developing world. The millennium development agenda set to reduce poverty by a half by the year 2015 expresses the global commitment to
ensuring the living standards of mankind. Education in every sense is one of the fundamental factors of achieving sustainable economic development through investment in human capital. Education fosters self-understanding, improves quality of lives and raises people’s productivity and creativity thus promoting entrepreneurship and technological advances. In addition it plays very crucial roles in securing economic and social progress thus improving income distribution which may consequently salvage the people from poverty.

2.6 Chapter Summary

This chapter presents a review of the literature addressing the objective on the influence of technical education on women empowerment in Kibera informal settlements, Nairobi County. Based on the existing literature and empirical studies, the study discusses the literature on technical education and training in Kenya, Technical education and economic liberation, technical education and poverty reduction and the women’s participation in the labor market. Chapter three will discuss the methods and procedures used to carry out the study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter discusses the research methodology that was used, in an attempt to achieve the objectives of the study. Attention was focused on research design, study population or target population, sample size, sampling techniques, data collection instruments, data collection procedure and data analysis procedures.

3.2 Research Design
Research design is a plan that guides the research in the process of collecting, analyzing and interpreting observations; the researcher’s blueprint for the methods and instruments used to gather information and to evaluate it, in order to respond to the research questions of the study (Mugenda, & Mugenda, 2003).

The study used cross-sectional survey research design. Cross-sectional surveys involve data collection from a population, or a representative subset, at one specific point in time and have an advantage over other research designs that only seek individuals with a specific characteristic, with a sample, often a tiny minority, of the rest of the population (Kothari, 2011). True to the positivism paradigm, cross-sectional surveys ensure that researchers record the information that is present in a population, but do not manipulate variables which enhance objectivity. Through cross-sectional survey, all population elements are considered ensuring that comprehensive findings are obtained on the subject matter.

The choice of cross-sectional survey design was justified since the study dealt with many institutions. Research design is a roadmap of how one goes about answering the research questions. Mugenda, & Mugenda, (2009) states that a good research design had a clearly defined purpose, and had consistency between the research questions and the proposed research method. Mugenda & Mugenda (2003) define this as simply the framework or blue print for the research, Orodho (2002) define the research design as a framework for
the collection and analysis of data that is suited to the research question. Orodho (1999) also defines research design as the scheme, outline or plan that is used to generate answers to the research problem.

3.3 Population and Sampling Design

3.3.1: Target Population
According to Ogula, (2005), a population refers to any group of institutions, people or objects that have common characteristics. The study used a total population of 832 women at the technical and vocational education training institutes in Kibera informal settlements (Technical and Vocational Training Authority, 2018).

Table 3.1: Target population

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Women Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Charles Lwanga Vocational Training Institute</td>
<td>220</td>
</tr>
<tr>
<td>Olympic Vocational Training Centre</td>
<td>201</td>
</tr>
<tr>
<td>PCEA Kibera Emmanuel Technical Training Centre</td>
<td>198</td>
</tr>
<tr>
<td>St. Kizito Vocational Training Institute</td>
<td>213</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>832</strong></td>
</tr>
</tbody>
</table>

Source: Researcher (2018)

3.3.2: Sampling Design

3.3.2.1: Sampling Frame
A sample frame is a collection of information used to classify a population for statistical treatment (Mugenda & Mugenda, 2008). The sampling frame for this study was all the
students and staff registered in the technical and vocational education training institution in Kibera informal settlements, Nairobi, Kenya.

### 3.3.2.2 Sampling Technique

Sampling technique refers to the part of the research plan that indicates how cases are to be selected for analysis. Collins and Hussey (2006) defines a sampling technique as the method of selecting elements from the population that represents the population. Stratified random sampling and proportionate sampling was used in this study. This study used stratified sampling since all the technical courses and teaching staff were considered. Proportionate sampling was used because each course was allocated a sample of students depending on its proportion to the total number of respondents. Stratified sampling enabled the researcher to achieve greater representativeness in the sample of the population. This was accomplished by selecting individuals at random from subgroups (stratified random sampling) in proportion to the actual size of the group in the total population (Van Dalen, 1979).

### 3.3.2.3: Sample Size

Sampling is a procedure, process or technique of choosing a sub-group from a population to participate in the study (Ogula, 2005). A sample was drawn from the 832 women registered in the technical and vocational education training institutions. Kothari (2012), propounds that, a representative sample should be at least 10% of the target population. The study thus used a sample size of 84 women in the technical institutes in Kibera informal settlements.

#### Table 3.2: Sample Size

<table>
<thead>
<tr>
<th>Technical Course</th>
<th>Number of students (Total population)</th>
<th>Exact proportion (Sample= Population X 10%)</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>832</td>
<td>83.2</td>
<td>84</td>
</tr>
</tbody>
</table>
3.4 Data Collection Instruments

Data collection, according to Burns and Grove (1999), is the accurate and systematic gathering of information relevant to the specific objectives and questions of a study. The study variables were measured using a variety of techniques such as observation, interviews, observation schedule and questionnaires. Data was collected by use of questionnaires. Questionnaires were used as they had potential in reaching out to a large number of respondents within a short time; give the respondents’ adequate time to respond to the items, offer a sense of security (confidentiality) to the respondents and was an objective method since there was no bias resulting from the personal characteristics. The questionnaires had both open and closed ended questions which facilitated easier analysis as were in immediate usable form; while the unstructured questions will be used to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information.

3.5 Validity of the Instruments

According to Mugenda and Mugenda, (2003), validity is the accuracy and meaningfulness of inferences, based on the research results. One of the main reasons for conducting the pilot study is to ascertain the validity of the questionnaire. Face, construct and content validity are measured by seeking the opinion of lecturers and other professionals on the adequacy of the research instruments in achieving the objectives of the study. In this study, the instruments was first discussed with experts in technical education programmes at Kibera informal settlements and then reviewed with the researcher’s supervisor.

3.6 Reliability of the Instruments

Refers to the consistency, stability or dependability of the data, a reliable measurement is one that if repeated a second time will give the same results as it did the first time (Kimberlin and Winterstein, 2008). The researchers try to obtain more than one source of
information about each item of interest to check for consistency. The researcher meets this goal through the preparation of parallel questions within the questionnaires in order to confirm the consistency e.g. using ranking order questions and scale rating question on the same issue.

Shuttleworth (2009) states that in test retest method, the instrument is administered at two different times and then the correlation between the two sets of scores computed. This research study used test-retest method which involved administering the same scale or measure to the same group of respondents at two separate times. This was after a time lapse of one week. This was conducted with 10 technical students from the vocational training institutes in Kibera informal settlements who are not part of the main study. Reliability of the instruments was computed using Pearsons Product Moment correlation coefficient Formula.

3.7 Data Analysis techniques

Checking the questionnaires for consistency and culmination of data at the end of each day of field data collection was done as well as before storage. Excel programming was employed during data capturing and the SPSS (Statistical Packages for Social Sciences) utilized to enter, clean and re-code finished questionnaires’ information into the PC. Graphs, pie charts, frequency tables and the applicable measures of variances was obtained using the SPSS program for interpretation purpose. Data analysis and the findings was accounted for in section four.

Descriptive statistics (that is recurrence examination) was processed for introducing and breaking down the information. Descriptive statistics empowered the analyst to depict the conglomeration of crude information in numerical terms (Neuman, 2000). The study employed various descriptive statistics, including the multivariate, bivariate and univariate examinations. These strategies were consolidate the utilization of measures of central tendency, percentage tables, and frequency distributions. They additionally fuse the utilization of measures of variation, for example, standard deviations, percentiles and ranges for univariate examination.
The study also used regression analysis to test the level of significant of the independent variable on the dependent variables at 95% level of significance. Tables, figures and charts were used for data presentation. After the analysis and interpretation of data, a final report was written to provide a summary of the findings.

3.8 Ethical considerations

Ethical considerations are very critical to any research process. A good research is said to be one that is conducted in an ethical manner and is both credible and dependable. The researcher should focus on developing researcher-respondent relationships, uphold respect and protect the respondent from unintended harm (Magdola and Weems, 2002). The ethics of the study was therefore thought about carefully. As noted by Hitchcock and Hughes (1995) the nature of any qualitative research will give rise to certain ethical issues especially if it involves people directly.

All respondents were treated with courtesy and respect in order to avoid misunderstanding between the enumerators and respondents and they were informed of the purpose of the study. Each respondent were politely requested to fill the questionnaire and also assured of confidentiality with regard to any information they provided.

3.9 Chapter Summary

This chapter presents the research methodology that was used for this study. The chapter covers research design, population and sampling design, data collection methods, research procedures, data analysis methods. Chapter four presents the results and findings of the study.
CHAPTER FOUR

4.0 DATA ANALYSIS INTERPRETATIONS AND PRESENTATIONS

4.1 Introduction
This chapter discusses the interpretation and presentation of the findings obtained from the field. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.2 Response Rate

Figure 4.1: Response Rate
The study targeted a sample size of 84 women in the technical and vocational education in Kibera informal settlements from which 69 filled in and returned the questionnaires making a response rate of 82.1%. This response rate was satisfactory to make conclusions for the study. Weisberg, Krosnick & Bowen (1996) recommended a response rate of 70%. According to Mugenda & Mugenda (2003), a response rate of 50 percent is adequate for analysis and reporting; a rate of 60 percent is good and a response rate of 70 percent and over is excellent. Based on the assertion, the response rate was considered to be excellent.
4.3 Pilot Test

To establish validity, the research instrument was given to experts who were experienced to evaluate the relevance of each item in the instrument in relation to the objectives. The same were rated on the scale of 1 (very relevant) to 4 (not very relevant). Validity was determined by use of content validity index (CVI). CVI was obtained by adding up the items rated 3 and 4 by the experts and dividing this sum by the total number of items in the questionnaire. A CVI of 0.704 was obtained. Oso and Onen (2009), state that a validity coefficient of at least 0.70 is acceptable as a valid research hence the adoption of the research instrument as valid for this study.

The questionnaires used had Likert scale items that were to be responded to. For reliability analysis Cronbach’s alpha was calculated by application of SPSS. The value of the alpha coefficient ranges from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 4 = excellent). A higher value shows a more reliable generated scale. Cooper and Schindler (2008) indicated 0.7 to be an acceptable reliability coefficient. Since, the alpha coefficients were all greater than 0.7, a conclusion was drawn that the instruments had an acceptable reliability coefficient and were appropriate for the study.

4.4 Demographic Information

The study sought to establish the demographic information from the respondents in the technical training institutions. The demographic information of the respondents includes gender of the respondents, age of the respondents, course pursued by the respondents, reasons for pursuit of the specific course. The findings from the analysis are illustrated in the following subsections.

4.4.1 Respondents Gender

The study sought to determine the gender disparity of the respondents. The results from analysis are illustrated in the figure 4.2 as shown below.
From the analysis of findings, it was established that all the respondents were female respondents while none of the respondents indicated to be male respondents. The study targeted women in the technical institutions as they were the ones able to provide relevant information on the influence of technical education and training on women empowerment in Kibera Informal settlement, Nairobi County.

4.4.2 Age bracket of the Respondents
Figure 4.3: Age bracket of the respondents

The respondents were required to indicate their age where the study findings indicated that majority (52.2%) indicated that they were aged between 25 and 30 years old while 34.8% of the respondents were aged between 31 and 35 years old. From the analysis, 10.1% of the respondents were aged 18 to 24 years while 2.9% indicated that they were aged over 40 years of age. From this findings therefore it can be inferred that most of the respondents were old enough to provide valuable information pertaining to the influence of technical education and training on women empowerment in Kibera informal settlements.

4.4.3 Course Pursued

The study sought to establish the course pursued by the respondents. The results from the analysis of findings are illustrated in the figure below as shown.

Figure 4.4: Course Pursued

From the findings it was established that 42.0% of the respondent indicated that they were pursuing food and beverage/catering, 29% of the respondent indicated that they were pursuing clothing/textile/fashion, 15.9% of the respondents indicated they were pursuing an engineering course while 7.2% of the respondents stated that they were
pursuing carpentry/metalwork. The least response (4, 5.8%) was of respondents who indicated that they were pursuing art/music. The study thus inferred that the respondents were in a suitable position to provide information on the influence of technical education on women empowerment in Kibera informal settlements.

4.4.4 Reasons for Choice of Course

The study also sought to establish from the respondents the reasons for pursuit of the given course. The results from the analysis of findings are illustrated in the figure 4.5 below as shown.

![Figure 4.5: Reasons for pursuit of the Course](image)

From the analysis of findings, majority of the respondents (33, 47.8%) indicated that the main reason they pursued the course was it was close to their home. Closely after were respondents (30, 43.5%) who indicated that the main reason pursuing the technical course in the given institution was it was the course they wanted. 8.7% of the respondents indicated that their pursuit of the given course was that it was affordable to their parents.
4.5: Technical Education and Economic Liberation

The first objective of the study sought to establish whether technical education has played a role in economic liberation. The following subsections shows descriptive and inferential statistics on the findings of from the respondents.

4.5.1 Descriptive Statistics of Technical Education and Economic Liberation

This section discusses the descriptive statistics of technical education and economic liberation. The data was captured on a five point Likert scale. The range was from strongly agree (5)’ to ‘strongly disagree’ (1. The score of 1 represented “strongly disagree” 2 represented “disagree”, 3 represented “neutral”, 4 represented “agree” and five represented “strongly agree”. The descriptive test undertaken are shown in table 4.3.

Table 4.3: Descriptives of Technical Education and Economic Liberation

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical education in Kibera informal settlements has led to</td>
<td>69</td>
<td>4.033</td>
<td>.72561</td>
</tr>
<tr>
<td>the women’s economic liberation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowerment focuses on the notions of capacity-building</td>
<td>69</td>
<td>4.127</td>
<td>.50319</td>
</tr>
<tr>
<td>Technical education increases employment opportunities</td>
<td>69</td>
<td>3.956</td>
<td>.55399</td>
</tr>
<tr>
<td>Technical education develops the mental qualities of the</td>
<td>69</td>
<td>4.289</td>
<td>.59659</td>
</tr>
<tr>
<td>students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economically empowering women is a win for society more broadly</td>
<td>69</td>
<td>4.478</td>
<td>.71965</td>
</tr>
<tr>
<td>Technical education enhances self-reliance of the women in</td>
<td>69</td>
<td>4.101</td>
<td>.30413</td>
</tr>
<tr>
<td>Kibera</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The technical and vocational institute has enabled increase</td>
<td>69</td>
<td>4.318</td>
<td>.55553</td>
</tr>
<tr>
<td>in the students’ skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declining economic fortunes have emphasized the need for</td>
<td>69</td>
<td>3.898</td>
<td>.73053</td>
</tr>
<tr>
<td>Vocational Education</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Technical education promotes women’s ability to achieve their rights and well-being
Educating women will reduce household poverty
Technical education increases efficiency of women
Technical education should be encouraged in ensuring the women’s economic empowerment

Source: Author (2018)

From the findings, the statement, economically empowering women is a win for society more broadly had the highest level of mean (4.47) meaning that majority of the respondents concurred to the statement. Also noted was that majority of the respondents strongly agreed that technical education should be encouraged in ensuring the women’s economic empowerment. This was supported by the mean value calculated of 4.46. A majority of the study participants strongly agreed that the technical and vocational institute has enabled increase in the students’ skills, this was inferred from the mean value calculated in the analysis of 4.32. A significant number of respondents agreed that technical education enhances self-reliance of the women in Kibera. This was established by the mean calculated of 4.10. The study also established that majority of the respondents agreed that Declining economic fortunes have emphasized the need for Vocational Education. This was seen by the mean calculated of 4.90.

The standard deviation calculated in each case of less than 1.5 indicated uniformity in the responses made by the respondents. The study thus concluded that majority of the study participants were of a similar opinion. Generally it was clear that technical education had a significant influence on the economic liberation of women. The findings are in line with Lakshman (1996) who argues that women economic empowerment has brought positive changes in household and community perceptions of women’s productive role, as well as changes at the individual level.

**4.5.2 Effect of Technical Education on Economic Liberation**

A regression analysis was done between Technical education & Economic Liberation. Table 4.4 below presented the regression model goodness of fit on economic liberation
An R-square value of 0.129 was established depicted that the relationship was significant and that technical education accounts for 12.9% of the women’s economic liberation in Kibera Informal settlements. The remaining 87.1% is accounted for by the error term and other factors not considered in the study.

### 4.5.3 ANOVA of Technical Education and Economic Liberation

The study sought to establish the significance of in the model. The test was done at 95% confidence level with Alpha value (α) of .05. The results from the analysis of finding are illustrated in table 4.5 below as shown.

#### Table 4.5: ANOVA of Technical Education and Economic Liberation

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.551</td>
<td>1</td>
<td>.551</td>
<td>9.925</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>3.721</td>
<td>67</td>
<td>.056</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.272</td>
<td>68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Economic Liberation
b. Predictors: (Constant), Technical education

ANOVA was conducted to determine the significance of Technical education on economic liberation in the regression model. An F-significance value of 0.002 was established depicting that technical education had a high significance on economic liberation in the model (95% confidence level)
4.5.4 Coefficients of Technical Education & Economic Liberation

A Pearson correlation was done between technical education and economic liberation. The results of the regression coefficients, t-statistics, standard errors of the estimates and p values are shown in table 4.6.
Table 4.6: Regression Coefficients (Economic Liberation)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.969</td>
<td>.518</td>
</tr>
<tr>
<td>Technical education</td>
<td>.389</td>
<td>.123</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Economic Liberation

The study established the following regression model:

Economic Liberation = 1.969 + .359*Technical education

The study established that when technical education is zero, economic liberation would be at 1.969. The study also established that holding other factors constant, a unit increase in technical education would yield a .359 unit increase in women’s economic liberation. From the coefficients, it was noted that technical education is significant in enhancing the economic Liberation of women in Kibera informal settlements.

4.6 Technical education and women’s participation in the labor market

The second objective of the study sought to determine the effect of technical education on the women’s participation in the labour market in Kibera informal settlement, Nairobi County. The following subsections shows descriptive and inferential statistics on the findings of from the respondents.

4.6.1 Descriptive Statistics of Technical Education and Women’s Participation in the Labor Market

This section discusses the descriptive statistics of technical education and women’s participation in the labor market. The data was captured on a five point Likert scale. The range was from strongly agree (5)’ to strongly disagree’ (1. The score of 1 represented “strongly disagree” 2 represented “disagree”, 3 represented “neutral”, 4 represented
“agree” and five represented “strongly agree”. The descriptive test undertaken are shown in table 4.7.

**Table 4.7: Descriptives of Technical education and women’s participation in the labor market**

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women education increases their labour force participation as well as in their earnings.</td>
<td>69</td>
<td>3.8551</td>
<td>.60087</td>
</tr>
<tr>
<td>Educated women earn income through engaging in productive economic activities</td>
<td>69</td>
<td>4.3623</td>
<td>.64102</td>
</tr>
<tr>
<td>Women's education has a greater impact on the educational attainment</td>
<td>69</td>
<td>4.3043</td>
<td>.79158</td>
</tr>
<tr>
<td>Technical Education leads to improved production in industry, agriculture, trade and commerce</td>
<td>69</td>
<td>4.1739</td>
<td>.41856</td>
</tr>
<tr>
<td>The labour markets of most developing countries are characterized by low rates of female labour force</td>
<td>69</td>
<td>4.3913</td>
<td>.59945</td>
</tr>
<tr>
<td>Women education contribute more significantly than the education of males to increases in human capital</td>
<td>69</td>
<td>3.9710</td>
<td>.68537</td>
</tr>
<tr>
<td>Vocational education is the end process results in addition to the general education.</td>
<td>69</td>
<td>4.5217</td>
<td>.53161</td>
</tr>
<tr>
<td>There is gender disparities in the choice of courses taken</td>
<td>69</td>
<td>3.9710</td>
<td>.56805</td>
</tr>
<tr>
<td>More educated women tend to be healthier and participate more in the formal labour market</td>
<td>69</td>
<td>3.9710</td>
<td>.68537</td>
</tr>
<tr>
<td>Technical education improves the well-being of all individuals and lift households out of poverty</td>
<td>69</td>
<td>4.5072</td>
<td>.50361</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author (2018)

From the findings in the SPSS analysis, the statement, vocational education is the end process results in addition to the general education had the highest level of mean (4.52) meaning that majority of the respondents concurred to the statement. Also noted was that majority of the respondents strongly agreed that Technical education improves the well-being of all individuals and lift households out of poverty. This was supported by the mean value calculated of 4.51. A majority of the study participants strongly agreed that the labour markets of most developing countries are characterized by low rates of female
labour force, this was inferred from the mean value calculated in the analysis of 4.39. A significant number of respondents agreed that women's education has a greater impact on the educational attainment. This was established by the mean calculated of 4.30. The study also established that majority of the respondents agreed that Women education increases their labour force participation as well as in their earnings as was seen by the mean calculated of 3.86.

The standard deviation calculated in each case of less than 1.5 indicated uniformity in the responses made by the respondents. The study thus concluded that majority of the study participants were of a similar opinion. Generally it was clear from the SPSS findings that technical education had a significant influence on the women’s participation in the labor market. The findings are in line with Raban (2014) who acknowledges technical education for its remarkable features in response to the problem of unemployment of school leavers by vocationalization of the school curriculum.

4.6.2 Effect of Technical education and Women’s Participation in the Labor Market

A regression analysis was done between Technical education and Women’s Participation in the Labor Market. Table 4.8 below presented the regression model goodness of fit on women’s participation in the labor market.

**Table 4.8: Model Summary of Women’s Participation in the Labor Market**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.785(^a)</td>
<td>.616</td>
<td>.589</td>
<td>.25161</td>
</tr>
</tbody>
</table>

\(a\). Dependent: Women’s Participation in the Labor Market

b. Predictors: (Constant), Technical education

An R-square value of 0.616 was established depicting that the relationship was very strong and that technical education influences 61.6% of women’s participation in the labor market in Kibera informal settlements. The remaining 38.4% is accounted for by the error term and other factors not considered in the study.
4.6.3 ANOVA of Technical Education and Women’s participation in the labor market

The study sought to establish the significance of technical education on women’s participation in the labor market in the model. The test was done at 95% confidence level with Alpha value (α) of .05. The results from the analysis of finding are illustrated in table 4.9 below as shown.

Table 4.9: ANOVA of Technical Education and Women’s participation in the labor market

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>.631</td>
<td>1</td>
<td>.631</td>
<td>10.486</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>4.242</td>
<td>67</td>
<td>.063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4.873</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Women’s Participation in labor market
b. Predictors: (Constant), Technical education

ANOVA analysis conducted determined the significance of technical education on women’s participation in the labor market in the regression model. An F-significance value of 0.000 was established depicting that the predictor variable had a high significance in the model (95% confidence level).

4.6.4 Regression Coefficients of Technical education and Participation in the labor market

A Pearson correlation was done between technical education and Women’s participation in the labor market. The results of the regression coefficients, t-statistics, standard errors of the estimates and p values are shown in table 4.10.
The study established the following regression model:

Women’s Participation in the labor market = 2.635 + .385*Technical education

The study established that when Technical education is zero, women’s Participation in the labor market would be at 2.635. The study also established that holding other factors constant, a unit increase in technical education would yield a .385 increase in women’s Participation in the labor market. From the coefficients, it was noted that technical education is significant in explaining women’s participation in the labor market.

### 4.7 Technical education and quality of life

The third objective of the study sought to establish the effect of technical education and quality of life in Kibera informal settlement, Nairobi County. The data was captured on a five point Likert scale. The range was from strongly agree (5) to strongly disagree (1). The score of 1 represented “strongly disagree” 2 represented “disagree”, 3 represented “neutral”, 4 represented “agree” and five represented “strongly agree”. The descriptive test undertaken are shown in table 4.11.
4.7.1 Descriptive Statistics of Technical Education and Quality of Life

The study sought to establish whether technical education has played a role in improving the women’s quality of life. The table 4.11 below shows the findings of from the respondents.

Table 4.11: Descriptives of Technical Education and Quality of life

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women education has led to poverty reduction in Kibera informal settlement</td>
<td>69</td>
<td>4.333</td>
<td>.67881</td>
</tr>
<tr>
<td>Educated women have assisted in restoration and expansion of physical infrastructure in Kibera</td>
<td>69</td>
<td>3.8696</td>
<td>.76530</td>
</tr>
<tr>
<td>Women’s education is important for poverty reduction</td>
<td>69</td>
<td>4.1449</td>
<td>.62486</td>
</tr>
<tr>
<td>Education fosters self-understanding of women in the region</td>
<td>69</td>
<td>4.3913</td>
<td>.73199</td>
</tr>
<tr>
<td>Educating women has resulted in equality and economic growth</td>
<td>69</td>
<td>4.0580</td>
<td>.56579</td>
</tr>
<tr>
<td>Encouraging women in technical and vocational education is an Investment in human capital for the poor</td>
<td>69</td>
<td>4.3478</td>
<td>.61420</td>
</tr>
<tr>
<td>Technical education has improves quality of lives in the informal settlements</td>
<td>69</td>
<td>4.0290</td>
<td>.70650</td>
</tr>
<tr>
<td>Technical education has also raised people’s productivity and creativity</td>
<td>69</td>
<td>4.2464</td>
<td>.62792</td>
</tr>
<tr>
<td>Women’s education is important because it helps to break the vicious cycle of poverty</td>
<td>69</td>
<td>4.1884</td>
<td>.64797</td>
</tr>
<tr>
<td>Whether self-employed or earning wages, working women help their households escape poverty</td>
<td>69</td>
<td>4.0290</td>
<td>.70650</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author (2018)

From the findings in the SPSS analysis, the statement, Education fosters self-understanding of women in the region had the highest level of mean (4.39) meaning that majority of the respondents concurred to the statement. Also noted was that majority of the respondents strongly agreed that Encouraging women in technical and vocational education is an Investment in human capital for the poor. This was supported by the mean
value calculated of 4.34. A majority of the study participants strongly agreed that women’s education is important for poverty reduction, this was inferred from the mean value calculated in the analysis of 4.14. A significant number of respondents agreed that educating women has resulted in equality and economic growth. This was established by the mean calculated of 4.05. The study also established that majority of the respondents agreed that technical education has improves quality of lives in the informal settlements. This was seen by the mean calculated of 4.03.

The standard deviation calculated in each case of less than 1.5 indicated uniformity in the responses made by the respondents. The study thus concluded that there was little variation in the responses from the respondents. Generally it was clear that technical education had a significant influence in improving the quality of life of women in Kibera informal settlements. The findings were in line with Dollar and Gatti (1999) who reported the findings of a study that indicated that increasing the share of women with secondary education by 1 percent boosts annual per capital income growth by 0.3 percent on average.

### 4.7.2 Effects of Technical Education on Quality of Life

A regression analysis was done between technical education & quality of life. Table 4.12 below presented the regression model goodness of fit on Quality of Life of Women in Kibera informal settlements.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.711&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.505</td>
<td>.485</td>
<td>.25251</td>
</tr>
</tbody>
</table>

a. Dependent: Economic Liberation  
   b. Predictors: (Constant), Technical education

Table 4.12 above presented the regression model goodness of fit. An R-square value of 0.505 was established depicted that the relationship was very strong and that technical
education accounts for 50.5% of the quality of life in Kibera informal settlements. The remaining 49.5% is accounted for by the error term and other factors not considered in the study.

4.7.3: ANOVA of Technical Education and Quality of Education

The study sought to establish the significance of quality of life in the model. The test was done at 95% confidence level with Alpha value (α) of .05. The results from the analysis of finding are illustrated in table 4.13 below as shown.

Table 4.13: ANOVA of Technical Education and Quality of Education

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.473</td>
<td>1</td>
<td>.473</td>
<td>7.391</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>4.272</td>
<td>67</td>
<td>.064</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.745</td>
<td>68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Quality of life
b. Predictors: (Constant), Technical education

Source: Author (2018)

Analysis of variance conducted determined the significance of technical education on quality of life in the regression model. An F-significance value of 0.001 was established depicting that the technical education had a high significance on the quality of life in the model (95% confidence level).

4.7.4: Coefficients of Technical education & Quality of Life

A Pearson correlation was done between women empowerment and quality of life of women’s empowerment in Kibera informal settlements. The results of the regression coefficients, t-statistics, standard errors of the estimates and p values are shown in table 4.14.
Table 4.14: Regression Coefficients (Quality of life)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.641</td>
<td>.515</td>
<td>7.065</td>
</tr>
<tr>
<td></td>
<td>Technical education</td>
<td>.311</td>
<td>.124</td>
<td>.301</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Quality of life

The study established the following regression model:

Quality of Life = 3.641 + .301*Technical education

The study established that when technical education is zero, and quality of life would be at 3.641. The study also established that holding other factors constant, a unit increase in technical education would yield a .301 increase in women’s quality of life. From the coefficients, it was noted that technical education is significant in explaining the women’s quality of life in Kibera informal settlements.

4.8: Chapter Summary

This chapter presents the findings from the data collected addressing the objective on the influence of technical education on women empowerment in Kibera informal settlements, Nairobi County. Based on the analysis, the study established that economic liberation, women’s participation in the labor market, and the quality of life are all influenced by technical and vocational education. Chapter five will discuss the summary conclusion and recommendations from the study findings.
CHAPTER FIVE

5.0 DISCUSSIONS CONCLUSIONS AND RECOMMENDATIONS

5.1: Introduction
This chapter provides a summary, a discussion on the findings, conclusions of the study, makes recommendations and suggestions for improvement as well as proposals on areas for further research. The conclusion is based on the research objectives of the study while the recommendations were derived from the conclusions and discussion of the findings.

5.2: Summary of Study
The purpose of the study was to establish the influence of technical education on women empowerment in Kibera informal settlement, Nairobi County. The study was guided by the following specific research objectives: To determine the effect of technical education on economic liberation of women in Kibera informal settlement, Nairobi County, to determine the effect of technical education on the women’s participation in the labour market in Kibera informal settlement, Nairobi County and to establish the effect of technical education and quality of life in Kibera informal settlement, Nairobi County. The target population consisted of all the technical and vocational training institutions in Kibera informal settlements. The study sought to establish the relationship between technical education and the chosen variables on women empowerment in Kibera informal settlement, Nairobi County. The study used cross-sectional survey research design. The population of study was 832 women at the technical and vocational education training institutes in Kibera informal settlements. Sampling technique chosen for this study was Stratified random sampling and proportionate sampling using a sample of 84 respondents, approximately 10% of the target population. A structured questionnaire was formulated using the research questions in the study and was self-administered and sent to the institution constituents through email and drop and pick hard copies method. In this study, the descriptive statistics such as percentages and frequency distribution was used to analyze the demographic profile of
the participants. In order to describe the data, the study used means and standard
deviation of each variable and regression analysis to show the relationship between the
independent and the dependent variable.

From the findings in the SPSS analysis, the study established that there is rapid growth in
the technical sector. This was established by the high mean (4.52) which that majority of
the respondents concurred to the statement. Also noted was that there has been a decline
in enrolment of female students in technical education. This was supported by the mean
value calculated of 4.41. The statement also calculated a standard deviation of .495 which
also indicated that there was little variance from the mean mark. The study findings were
in line with Okorie (2001) who sees vocational education as that type of education, which
develops the mental and physical qualities of people thereby increasing their skills,
knowledge and attitudes required for utilizing the natural resources needed for economic
development of the nation and for their own self-employment.

Descriptive statistics from the second objective revealed that economically empowering
women is a win for society as noted by the mean (4.47). The standard deviation
calculated from the analysis of 0.720 indicated uniformity in the responses from the
respondents. Also noted was that majority of the respondents strongly agreed that
technical education should be encouraged in ensuring the women’s economic
empowerment. This was supported by the mean value calculated of 4.46. The statement
also calculated a standard deviation of .502 which also indicated that there was little
variance from the mean mark. From this analysis it was clear that technical education
influences economic liberation. Booz (2012) argues that gains for individual women and
the economy, income-enhancing interventions for women can help to change traditional
gender norms that influence family spending on female children.

From the analysis of the descriptive statistics on the third objective, it was clear that most
respondents believed that vocational education is the end process results in addition to the
general education. This was seen by the mean calculated of (4.52) meaning that majority
of the respondents concurred to the statement. The standard deviation calculated from the
analysis of 0.531 indicated uniformity in the responses from the respondents. Also noted
was that majority of the respondents strongly agreed that Technical education improves the well-being of all individuals and lift households out of poverty. This was supported by the mean value calculated of 4.51. From this descriptive also it was noted that technical education played a significant role in increasing the women’s participation in the labor market. Nyerere, (2009) argues that the reasons for women’s under representation in professional and leadership positions are many and complex, the biggest single reason given for their smaller numbers, compared to those of men, is that they are under-represented in education and skills training and therefore, they will automatically be under-represented in the labour force.

5.3 Discussion

5.3.1 Effect of Technical education on Economic Liberation

The findings revealed a positive relationship between technical education and economic liberation. According to WIEGO (2010), for women to achieve full economic empowerment there must be an integrated understanding of where women and men are situated in the workforce and in the economy, and what the consequences of gender differences are. Economically empowering women is a win-win that can benefit not only women, but society more broadly. It promotes women’s ability to achieve their rights and well-being while also reducing household poverty, increasing economic growth and productivity, and increasing efficiency (Cabrera, 2000).

It was established that technical and vocational institute has enabled increase in the students’ skills Booz (2012) argues that gains for individual women and the economy, income-enhancing interventions for women can help to change traditional gender norms that influence family spending on female children. Rising aspirations for girls, along with increased family spending on them, may be among the most consequential benefits of jobs for women. These benefits provide a convincing argument for investing in expanding economic opportunities for women in developing countries.

A regression analysis was done between technical education and economic liberation which revealed that technical education accounts for thirteen percent of the women’s
economic liberation in Kibera Informal settlements. Lakshman (1996) argues that women economic empowerment has brought positive changes in household and community perceptions of women’s productive role, as well as changes at the individual level. In societies like Sudan and Bangladesh where women’s role has been very circumscribed and women previously had little opportunity to meet women outside their immediate family there have sometimes been significant changes.

5.3.2 Effect of Technical education on Women’s Participation in the Labor Market
The findings revealed that Technical education improves the well-being of all individuals and lift households out of poverty. Namuddu, (2012) notes that the labour markets of most developing countries are characterized by low rates of female labour force. Participation in the modern economic sector follows occupational segregation patterns that cluster women in a limited number of occupations. Part of the explanation is that this occupational segregation is higher in developing than developed countries may lie in the late entry of women into the formal sector. Klasen (2005) observed that increased number of employed women reduces gender inequality in employment. This induces economic growth and facilitates achievement of Millennium Development Goals such as improved maternal health care, reduced child mortality and improved nutrition. According to UNDP (2007) when women are adequately represented in all decision making organs the quality of governance increases and corruption also tends to decline.

The findings also established that more educated women tend to be healthier and participate more in the formal labour market. This in line with Afeti (2006) who notes that women’s education has a greater impact on the educational attainment and school achievement of children than father's education. This is plausible given the greater interaction between mother and children in most families since, in most countries, fathers are usually the main earners in the household (African economic outlook, 2008). In this way, education of females contributes more significantly than the education of males to increases in human capital, productivity, and economic growth not only in their own generation but also in the next generations.
A regression analysis was done between technical education and women’s participation in the labor market which revealed that technical education accounts for sixty two percent of the women’s participation in the labor market in Kibera Informal settlements. World bank (2007) postulate that the systematic exclusion of women from access to schooling and the labour force translates into a less educated workforce, inefficient allocation of labour, lost productivity, and consequently diminished progress of economic development. Evidence across countries suggests that countries with better gender equality are more likely to have higher economic growth.

5.3.3: Effect of Technical Education on Quality of Life

The analysis of findings revealed that encouraging women in technical and vocational education is an Investment in human capital for the poor. According to Tembon and Fort, (2008) the eradication of extreme poverty and hunger is the focus of the 1st MDG. Women’s education is important for poverty reduction not only because of the income it generates but also because it helps to break the vicious cycle of poverty. Whether self-employed or earning wages, working women help their households escape poverty.

The findings also revealed women’s education is important because it helps to break the vicious cycle of poverty and improves their quality of life. This is corroboration with Filmer (2016) education in every sense is one of the fundamental factors of achieving sustainable economic development through investment in human capital. Education fosters self-understanding, improves quality of lives and raises people’s productivity and creativity thus promoting entrepreneurship and technological advances.

A regression analysis was done between technical education and the quality of life which revealed that technical education accounts for fifty one percent of the quality of life in Kibera Informal settlements. Dollar and Gatti (1999) report the findings of a study that indicated that increasing the share of women with secondary education by 1 percent boosts annual per capital income growth by 0.3 percent on average. This argument is supported by MoE (2007) who state that with even a basic education, individual women
effectively engage in economic activities and thus contribute to greater national productivity.

5.4: Conclusion

5.4.1: Effect of technical education on economic liberation

Technical education plays a significant role in women’s empowerment. Economically empowering women is a win-win that can benefit not only women, but society more broadly. Technical education seeks to relate education to employment, job creation and self-reliance. Vocational education is seen as that type of education, which develops the mental and physical qualities of people thereby increasing their skills, knowledge and attitudes required for utilizing the natural resources needed for economic development of the nation and for their own self-employment. The declining economic fortunes and rising waves of unemployment through the years have greatly emphasized the need for entrepreneurship education and Vocational Education.

5.4.2: Effect of technical education on women’s participation in the labor market

The systematic exclusion of women from access to schooling and the labour force translates into a less educated workforce, inefficient allocation of labour, lost productivity, and consequently diminished progress of economic development. Evidence across countries suggests that countries with better gender equality are more likely to have higher economic growth.

5.4.3: Effect of technical education on quality of life

Poverty is a major threat to the existence of humanity in modern times especially in the developing world. The millennium development agenda set to reduce poverty by a half by the year 2015 expresses the global commitment to ensuring the living standards of mankind. Education in every sense is one of the fundamental factors of achieving sustainable economic development through investment in human capital.
5.5 Recommendations

5.5.1 Recommendation for Improvement

5.5.1.1 Effect of technical education on economic liberation
There is need to encourage technical education for women in order to generate a synergy between men and women enabling them to cope equally with the problems of poverty to a great extent. It is very important to instill the importance of technical education for women in the TVET so that women can perform and acknowledge that both genders may reconcile them with their social, professional and political activities thus enhancing their economic liberation through education and advancement in more competed careers.

5.5.1.2 Effect of technical education on women’s Participation in the labor Market
It is recommended that technical education should be encouraged in so as to increase the women’s participation in the labor market. A balanced gender group in an office after-all not only helps the team work better; it helps create a healthy workforce. Technical education should be encouraged as more educated women also tend to be healthier, participate more in the formal labour market, earn more income, have fewer children, and provide better health care and education to their children, all of which eventually improve the well-being of all individuals and lift households out of poverty.

5.5.1.3 Effect of Technical Education and Quality of Life
It is highly advisable that both male and female should be given same opportunity to be in class whereby, the parents and the guardians should struggle to pay for the female education so as to improve their quality of life. Technical education should be encouraged as it fosters self-understanding, improves quality of lives and raises people’s productivity and creativity thus promoting entrepreneurship and technological advances. In addition it secures economic and social progress thus improving income distribution which may consequently salvage the people from poverty.
5.5.2: Recommendations for Further Studies

The main objective of the study is to assess the influence of technical education on women empowerment in Kibera informal settlement, Nairobi County. Further studies should be carried out to establish the influence of technical and vocational education in other counties in the country. There is need for further research to establish the similarities and differences and establish alternative ways that may be used to investigate the influence of technical and vocational education. Further studies should also be carried out to establish the influence of technical and vocational education on empowerment of both women and men as a whole since this study focussed on women’s empowerment only.
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APPENDICES

APPENDIX 1: LETTER TO THE RESPONDENTS

Rebecca Arunga.
P.O Box 55962-00200,
Nairobi, Kenya
15th, February 2018

Olympic Vocational Training Centre,
P. O. Box 35625 – 00100,
Nairobi
Kenya.
Dear Sir/Madam,

RE: INFLUENCE OF TECHNICAL EDUCATION ON WOMEN EMPOWERMENT IN KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY

I am a Master of Science Student in Organizational Development at United States International University - Africa currently conducting a research study on The Influence of Technical Education on Women Empowerment in Kibera Informal Settlement, Nairobi County.

You have been randomly selected to participate in this study. It is estimated that it will take fifteen minutes to complete the questionnaire. Please respond as objectively and candid as possible. Your participation will be highly appreciated and is essential for the accomplishment of this study. Your answers will be handled in strict confidence and will exclusively be used for the purpose of this research. Many thanks for your time and support.
Yours sincerely,

Rebecca Arunga (0722 605677)
APPENDIX 2: QUESTIONNAIRE

Section A: Demographic Data

1. What is your gender?
   Male □
   Female □

2. What is your age?
   18–24 years □
   25–30 years □
   31–35 years □
   35–40 years □
   Over 40 years □

3. What course do you pursue?
   Engineering course □
   Food and Beverage/Catering □
   Clothing/textile/fashion □
   Carpentry/metalwork □
   Art/music □
   Accounting □
   Others (specify) .................................................................

4. Why did you choose to pursue your course in this institution?
I offered the courses I want □
It is close to home □
It was affordable to my parents □
It is close to home □
My grade could not qualify for other institutions □
Others (specify) .................................................................

SECTION B: TECHNICAL EDUCATION

5. Technical education has played a vital role in women empowerment
   □ Yes
   □ No

6. Has technical education created skilled manpower in the country?
   □ Yes
   □ No

Please give an explanation for your answer above

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________

6. The statements below are concerned with technical education within the technical and vocational training institutions. It would be ideal if you tick the one that best portrays your opinion. Ensure that you use the following scale.
1-strongly agree, 2- agree, 3- neutral, 4-disagree and 5- strongly disagree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Technical education is a powerful tool for gender empowerment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. There has been a rapid growth in the technical sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. There has been concerns with the decreasing number of females at post-secondary tier</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Participation of women is crucial in determining the extent to which women participate in the complex technologically oriented global economy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. The has been a decline in enrolment of female students in technical education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi. Women education should be encouraged in the technical and vocational training institutes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii. Efforts have been made by the governments to increase women’s participation in vocational education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii. International donors have also encouraged the women in Kibera to enroll in the technical and vocational education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix. Technical education is essential in improving the lives of the women in Kibera informal settlements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION C: ECONOMIC LIBERATION**

7. Technical education in Kibera informal settlements has led to the women’s economic liberation

70
Strongly agree □
Agree □
Idon’t know □
Disagree □
Strongly disagree □

8. The statements below are concerned with technical education and economic liberation. It would be ideal if you tick the one that best portrays your opinion. Ensure that you use the following scale.

1 - strongly agree, 2 - agree, 3 - neutral, 4 - disagree and 5 - strongly disagree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Empowerment focuses on the notions of capacity-building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Technical education increases employment opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Technical education develops the mental qualities of the students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Economically empowering women is a win for society more broadly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. Technical education enhances self-reliance of the women in Kibera</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi. The technical and vocational institute has enabled increase in the students’ skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii. Declining economic fortunes have emphasized the need for Vocational Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii. Technical education promotes women’s ability to achieve their rights and well-being</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION D: WOMEN’S PARTICIPATION IN THE LABOR MARKET

9. Technical education in Kibera informal settlements has led to the women’s participation in the labour market

Yes

No

Please give a reason for the answer above;

_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

10. The statements below are concerned with technical education and women’s participation in the labor. It would be ideal if you tick the one that best portrays your opinion. Ensure that you use the following scale.

1-strongly agree, 2- agree, 3- neutral, 4-disagree and 5- strongly disagree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Women education increases their labour force participation as well as</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in their earnings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SECTION E: THE QUALITY OF LIFE

11. Technical education in Kibera informal settlements has led to improved quality of life

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td></td>
</tr>
<tr>
<td><strong>No</strong></td>
<td></td>
</tr>
</tbody>
</table>

Please give a reason for the answer above:

- Educated women earn income through engaging in productive economic activities
- Mother’s education has a greater impact on the educational attainment
- Technical Education leads to improved production in industry, agriculture, trade and commerce
- The labour markets of most developing countries are characterized by low rates of female labour force
- Women education contribute more significantly than the education of males to increases in human capital
- Vocational education is the end process results in addition to the general education.
- There is gender disparities in the choice of courses taken
- More educated women tend to be healthier and participate more in the formal labour market
- Technical education improves the well-being of all individuals and lift households out of poverty
12. The statements below are concerned with technical education and improved quality of life. It would be ideal if you tick the one that best portrays your opinion. Ensure that you use the following scale.

1-strongly agree, 2- agree, 3- neutral, 4-disagree and 5- strongly disagree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Women education has led to poverty reduction in Kibera informal settlement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Educated women have assisted in restoration and expansion of physical infrastructure in Kibera</td>
<td></td>
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<td>iii. Women’s education is important for poverty reduction</td>
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<td>iv. Education fosters self-understanding of women in the region</td>
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<td>v. Educating women has resulted in equality and economic growth</td>
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<td>vi. Encouraging women in technical and vocational education is an Investment in human capital for the poor</td>
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<td>vii. Technical education has improved quality of lives in the informal settlements</td>
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<td>viii. Technical education has also raised people’s productivity and creativity</td>
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<td>ix. Women’s education is important because it helps to break the vicious cycle of poverty</td>
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<td>x. Whether self-employed or earning wages, working women help their households escape</td>
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</tbody>
</table>
poverty
APPENDIX 3: A LIST OF TECHNICAL AND VOCATIONAL INSTITUTIONS IN KIBERA INFORMAL SETTLEMENTS

<table>
<thead>
<tr>
<th>Institution</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Charles Lwanga Vocational Training Institute</td>
<td>667</td>
</tr>
<tr>
<td>Olympic Vocational Training Centre</td>
<td>607</td>
</tr>
<tr>
<td>PCEA Kibera Emmanuel Technical Training Centre</td>
<td>596</td>
</tr>
<tr>
<td>St. Kizito Vocational Training Institute</td>
<td>633</td>
</tr>
</tbody>
</table>

Source (TVETA, 2018)