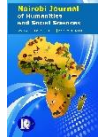




## The contribution of technical and vocational education and training to women's economic empowerment in Kampala, Uganda



Review article



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### Abstract

Technical and Vocational Education and Training (TVET) contributes to women's economic empowerment and improved quality of life. The aim of this study was to investigate the contribution of technical and vocational education and training to women's economic empowerment in Kampala, Uganda. The study was conducted between September 2019 to February 2020. The study used a descriptive cross-sectional survey design and 369 randomly sampled TVET graduates were interviewed using a structured questionnaire. Additional data were collected through in-depth interviews and secondary sources. Data was analysed through frequency and percentage evaluation. The study revealed that TVET has contributed to the economic empowerment of female graduates through reduction of unemployment and poverty levels amongst the women, further educational attainment and increased income, and in the power and agency dimension through property acquisition and control, empowering the women to act as change agents in society. The recommendation is to expand opportunities to access TVET for women to transform the societal barriers facing women in Uganda.

**Keywords:** economic, education, TVET, Kampala, Uganda, women empowerment



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## 1. Introduction

Women constitute more than half of the population in the world. According to (Adelakun, Oviawe, & Barfa, 2015) the population of females in Uganda is approximately 23.19 million. Women face a lot of challenges including unemployment, poverty, lack of access to formal education, lack of chance to participate in decision-making bodies, barriers to access to business development services and structural restrictions to their mobility and cultural beliefs about the kinds of occupation they can take on. Some of these gender inequalities can be linked to unequal access to training opportunities. This has resulted to release of women graduates who are less confident due to a lack of adequate skills. In Africa, technical courses were previously taken almost exclusively by males, and while female enrolment in Technical Vocational Educational and Training (TVET) is increasing. Uganda was rated 45th out of 144 countries in terms of the relative inequalities between men and women in four important areas: economic participation and opportunity, educational achievement, political empowerment, and health and survival, according to the Global Gender Gap Report 2017. I think this could be among others a result of the low enrolment of women in TVET institutions. Despite progress made in TVET to ensure more enrolment of women, over the years, many barriers and inequalities persist in the country. To succeed and advance economically, women need the skills and resources to compete in markets, make decisions, and control resources and profits – all of these are areas supported by TVET. This is because TVET offers significant skills that are necessary for perfect competition in the market. There has been no comprehensive empirical study on the actual role of TVET in the economic empowerment of women in Uganda. This study contributes to the literature by examining the role of TVET in the economic empowerment of women in Uganda through cross-sectional surveys of 329 TVET graduates and interviews.

## 2 Literature Review

### 2.1 TVET in Uganda

The first TVET institution in Uganda was established in 1974. In Uganda, many continue to see TVET certificate programs as a less prestigious route despite its practicality; the degree holder is still considered to be superior (Kafka, 2013). In 1974, the Ugandan government established the Directorate of Industrial Training (DIT), for purposes of developing policies and implementing strategies for skills training, upgrading, and testing of workers in industries and apprentices in the workplace as well as those persons training in the world of work which operates 5 vocational institutes. These are supplemented by the private vocational centres throughout the country. Apprenticeship training, industrial training, skill upgrading, trade testing, and certification are all handled by DIT. Its goals are to create, promote, and manage an efficient and effective national and local industrial training

system for the continuous and sustained growth of personnel in Uganda (Ssekamwa, 1997).

The number of TVET institutions expanded in the 1990s and early 2000s. Many private technical institutions were put up between 1992 and 2005 because of the government policy issued in the Government White Paper on Education (1992). The aim of the white paper was to eradicate illiteracy and equip the individual with basic skills and knowledge to exploit the environment for self-development. In 2001, the Ugandan government opened village polytechnics and opened 11 community polytechnic instructors' colleges to train technical teachers. Prior to this, the only technical teacher training institution in Uganda had been Uganda Polytechnic Kyambogo, which had limited space for this enormous job. In 2001, the technical teachers' colleges opened with an enrolment of 884 students. The number of women learners comprised 224. The following year, the enrolments equalled almost the same number of students. The number of women was a bit higher (356). However, this development could not continue.

The 2002 Education Review Report questioned the need for these colleges. There was a fear of training many teachers although the community polytechnics had not yet opened (Okello, 2009). This fear led to the closure of 10 community polytechnic instructor' colleges. The present TVET system in Uganda is a three-tiered system with artisan and technician levels available at technical schools and institutions, technician levels offered in technical colleges and Uganda Polytechnics, and graduate engineer levels offered in university programs source. Post-primary graduates can take courses in carpentry and joinery, block-laying and concrete practice, tailoring, and tropical agriculture at Uganda Technical Schools, which culminate to the granting of a Uganda Junior Technical Certificate (UJTC). The Uganda Technical school has a current enrolment of approximately 5,000 students of which 10% are females. As of 2014, there were 30 government-aided technical institutes that admit students from the post-secondary level and UJTC holders, and these offers 2-year craft courses in carpentry and joinery, block-laying and concrete practice, motor vehicle mechanics, tailoring and cutting, plumbing, pottery, leatherwork, agriculture mechanics and electrical installation. Besides technical institutes, the Polytechnics and the Uganda Technical Colleges have an estimated total enrolment of 6,000 craftsmen source. There are now four Uganda Technical Colleges that train Ordinary Diploma Technicians and one Uganda Polytechnic Kyambogo that teaches Higher Diploma Technicians. Both recruit students from the advanced secondary level for two-year programs leading to an Ordinary Diploma in Mechanical Engineering, Electrical Engineering, Building and Civil Engineering, with Polytechnic also offering Science Laboratory Techniques, Industrial Ceramics, and Architectural Draughtsmanship. Ordinary Diploma holders in Electrical Engineering, Mechanical Engineering, and Civil Engineering

are given a Higher Diploma after a 2-year field experience, while Technical Teachers Training is available as a 1-year certificate course. The current anticipated student enrolment for Ordinary Diplomas is 2,200, with 100 for Higher Diplomas. Aside from pure technical courses, business technicians are also trained in 5 Uganda Colleges of Commerce and Business Studies, which have an approximate enrolment of 4000 students.

Despite low levels of female participation, TVET is making a positive contribution to women's empowerment through skills development, capacity building employment and many other chances created.

However, a lot of debates have emerged around the role and effectiveness of TVET on economic, social, and political empowerment (Filmer & Fox, 2014). Okello (2009) argues that the Ugandan TVET system is producing agriculturalists, who have little knowledge of combine harvesters, and civil engineers, who do not know how to operate a bulldozer. TVET programmes in Uganda among others, aim to addressing women's vulnerability. It is therefore critical to establish if TVET, despite its current flaws, can provide a solution to the level of disparity and ameliorate the gender gap in favour of women economically, socially, and politically.

## **2.2 Level of Women Participation in TVET**

Gender disparities do exist in vocational education in Uganda as Okou (2002, p. 19) points out vocational education is largely viewed as a domain for men and only in female-dominated trades, such as tailoring, home economics, and agriculture, do we find a substantial enrolment of girls. This is due to social norms and prejudices, feeling of incapability, lack of encouragement, lack of role models, and ignorance. The government has however tried to address this issue through the provision of awareness concerning the equality of gender roles and the importance of women empowerment in society. Women's marginalization means that many countries miss out on the opportunity to capitalize on the potential of this human resource since the women population is the largest in the world and hence women empowerment will result in overall economic improvement in a country. The emancipation of girls and women through TVET, which allows them to enter the labor market and so contribute considerably to their family's income, is a critical contribution to poverty alleviation.

Mupinga et al. (2012) highlight that majority of the traditional women in Uganda perform more strenuous activities such as land cultivation, mining, road construction, and day-to-day household chores. It is therefore contradictory that women are less suited for TVET than their male counterparts even when most artisan jobs have been automated. This is because women are capable of doing strenuous activities which are mostly offered in TVET. Mupinga et al. (2012) add that there is a need to reverse this notion that only men

are suitable for TVET courses because no meaningful economic development can be achieved if over half of the population which constitute women is excluded from vocational training. This perception of men dominance to TVET courses has led to UNESCO intensifying advocacy for girls' right to education and the eradication of gender-based discrimination, notably through the implementation of 1960's Convention against Discrimination in Education, which provides an international legal framework for the protection of the right to education and prohibits any form of discrimination based on sex, including any distinction, exclusion, limitation or preference (UNESCO, 1960). In a competitive world, society can be more sustainable if it has eradicated discrimination in women's education and gives women equal access to technical knowledge, opportunities to develop their talents and interests. Traditionally, TVET was regarded to be a profession reserved for the male gender in developing countries (Mupinga et al. (2012) because women were regarded as less physically fit to do manual work, and also the society didn't allow women to partake some tasks which were reserved for men. In my opinion, this view is irrelevant in the current generation because currently, women can do much better tasks than men can do. This belief brought in serious omissions in national government development plans regarding gender and equity. Consequently, most of the TVET facilities are planned without taking into consideration the female gender (Benson, 2010). Enrolment data from TVET institutions indicate that Uganda has a very low percentage of women's enrolment in relation to the population of girls: in 2016, nearly 15,000 boys were enrolled in TVET while only around 5,000 girls were (Ministry of Education and Sports, 2016).

Some cultures in Uganda have taboos that prohibit women from climbing trees and poles (Mwangi (2005)). This prohibits women from pursuing courses like electrical engineering, which mandates the professional to climb poles to rectify faults or to do new installations. In my opinion, I don't support this view because we are living in a civilized generation and those beliefs are outdated. Cultural beliefs of communities escalate gender imbalance in TVET by emphasizing that girls should not enrol in courses like metal fabrication, which involves hard labour. For example, in the field of metal fabrication in Nakawa Vocational Training Institute, the second-year class of 39 students had only 2 girls. I think this could be due to low levels of application to these courses by women because of the community perceptions concerning gender roles. The cultural beliefs in the communities can be mitigated by sensitizing the public about the advantages of manual labour courses like electrical engineering, civil engineering, and metal fabrication courses as resourceful trades to offer opportunities to the graduate and to easily become self-employed.

## 2.3 Role of TVET to Women 's Financial Empowerment

### 2.3.1 Origin of the Term Empowerment

The term empowerment, as a result, is a complicated idea. However, it implies the transfer of power in a dynamic way over a period of time. Empowerment seems to be a modern idea that would not have been possible 200 years ago when the idea of democracy and 'government of the people, for the people, by the people' was something to fight and die for. In the 20th century, we saw many examples of political empowerment in different countries in the world led by people such as Mahatma Gandhi, Martin Luther King, and Nelson Mandela. From the perspective of the members of the low-powered group, empowerment refers to efforts to expand their base of power. The issue of 'women empowerment' is now a global phenomenon. Since the origin of the United Nations Organization, the issue of women's development has attracted the attention of scholars worldwide, and the concept has come into the political agenda of a large number of countries.

### 2.3.2 Types of Empowerment

**Social Empowerment-** Social Empowerment refers to the enabling force that strengthens women's social relations and their position in social structures. Social empowerment addresses the social discriminations existing in the society based on disability, race, ethnicity, religion, or gender.

**Educational Empowerment** - Without proper education for all children including girls, gender empowerment is not possible. This maxim - if one male child is literate personally he alone becomes educated but if one girl child is educated the whole family becomes benefited - has been realized by the national political leaders, policymakers, administrators, and bureaucrats. In this regard, P.H. Sethumadhava Rao (2001) considers that, "The most important thing is that they (the women) need to be given free and compulsory education so as to make them aware of the rights and duties and possible free legal aid so that they can fight their cases without spending money."

**Economic Empowerment** - Economic empowerment is the crying need of this hour. "Wage employment means economic power" (Elliott, 2008, p. 86). Through employment women earn money and it enables women and girls to become 'bread earners', contributing members of households with a strong sense of their own economic independence. "Economic empowerment is a powerful tool against poverty" (Biswas, 2010, p. 27). The Djakarta Declaration (1994) critically examines that, "empowerment of women is not only equal consideration; it was a necessary precondition for sustainable

economic and social development.” Without economic self-sufficiency, other rights and scopes remain meaningless to the people.

Women’s economic empowerment is the process of achieving women’s equal access to and control over economic resources and ensuring they can use them to exert increased control over other areas of their lives (Taylor & Perezniето, 2014). Its achievement is now a global policy priority considering its potential contribution to SDG number 5 which talks about gender equality, as evidenced by the convening of a dedicated High-Level Panel by the UN Secretary-General to bolster progress in this area. According to (World Bank, 2012), women’s economic advancement has led to increased investments in children’s education and health and reduced household poverty. It has been shown that ‘national economies lose out when a substantial part of the population cannot compete equitably or realize its potential’ (Golla et al., 2011, p.3).

The SDG number 5 which talks about gender equality is critical as far as women empowerment is concerned. This also directly links with the economic domain. It is good to note that realising women’s economic empowerment requires concerted, targeted efforts that prioritise women’s needs and preferences and recognise their heterogeneity. For purposes of ensuring equitable outcomes, contextually relevant strategies, particularly for poor and marginalised women should be keenly observed. Women miss out on formal job possibilities in construction sites, according to the available research, since societal norms continue to limit the kind of economic activities in which women can participate. Discrimination against women in the workplace has been documented in Kenya (Mwangi, 2005). Duflo’s (2012) study observed a strong relationship between women’s empowerment and economic development. The study concluded that women’s empowerment will lead to the improvement of economic development and the achievement of high levels of prosperity, particularly in the areas of health, foodstuff, and nutrition. It also stressed the need to achieve a balance between women’s and men’s roles in economic development.

### **3. Conceptual Framework**

The conceptual framework is the foundation on which the entire research project is based. It identifies the network of relationships among the variables considered important to the study of a given problem. The independent variables include Skills training, the impact of the training, and improvement of vocational education. Vocational education gives women Access to marketable job skills that leads to employment opportunities and financial capital. Economic empowerment leads to control over and allocation of financial resources, in this case, vocational education is a means through which women can get financial resources. They also benefit from employment mobility meaning that they can

shift from one sector to another because of their skills and capacity. The second independent variable is the impact of TVET which leads women to increased wages, entry into male-dominated sectors along with the reduction in the pay gap. When women receive vocational training, they are able to venture into job opportunities which are often male-dominated but provide increased wages. When they get to these sectors, they have access to greater financial stability which enables them to pick and choose what they want to do with their money. They can even move from one job to another all based on the salaries and wages so they gain autonomy, self-confidence, and the ability to act individually. The third independent variable is the improvement of TVET institutions which pushes for Mentorship, improved trainer capacity, investment in technology, and collaboration with industries. Once women gain better vocational education and training, they will be in a stronger position so that their skills are not ignored or taken for granted in the workplace. Improvement targets policies and laws that can influence the institutions to grow into a conducive environment for women to study and improve their lives.

The dependent variable is the socio-economic empowerment of women because that is the ultimate goal of the independent variables and their objectives. The indicators for socio-economic empowerment of women will include ownership of homes, businesses, and independence in terms of financial decisions. The other indicators could include leadership, influence over decisions in the home, and membership of financial institutions like SACCOs and “chamas”. The intervening variable is the government policy on TVETs and gender equality. These policies shape the government’s reaction and approach towards women's empowerment. It is the independent variables that either promote or hinder community vocational training centers in their initiative to help young women gain financial stability which in turn leads to social change in the long run.

#### **4. Methods**

##### **Research design**

This study employed a cross-sectional survey research design to evaluate the role of TVET in the empowerment of women in Kampala, Uganda. The design was ideal since it allowed for data collection from many respondents via a face-to-face questionnaire conducted by research assistants.

##### **Target population**

For this study, the target population included women who have received training at TVET institutions in Uganda. According to statistics, there are thirty-four TVET institutions in Uganda. Mugenda and Mugenda (2009) state that a target population is a group of



individuals, cases, or objects that share similar characteristics which are the focus of the study.

### **Sample and sampling technique**

The study used a stratified sampling technique to come up with the study sample. A combined list of the participants was drawn from the database of the TVET schools in Uganda. These schools are the custodians of the information on the women who have undergone vocational training. Stratified sampling is intended to have representation from all levels of the population including the subgroups that may exist among them (Teddlie & Yu, 2007). The participants had to include women who reside in different locales in Kampala and are drawn from diverse socio-economic classes. The sample is a chunk of the population that is selected to be part of a research study. It defines the selected groups of elements, that is, individuals, groups, and organizations (Mugenda, and Mugenda, 2009). According to Kothari (2010), the sample of 30% is sufficient for descriptive research. Therefore, the sample of this study comprised 369 women selected from the TVET institutions located in Kampala. This number was sufficient in providing the study with data.

### **Research instrument**

The study primarily depended on questionnaires to get study data. Questionnaires are effective in collecting data because they do so in a standardized process which is much better than oral interviews which have so many possible parameters (Mugenda & Mugenda, 2009). The questionnaires presented structured closed-ended questions that were based on the objectives of the study in conjunction with the research questions.

### **Data collection techniques**

The researcher acquired the necessary documentation for the research activity. Once the documentation was in place then the next step was to carry out field visits to the TVET institutions to get the list of potential participants. Once the sample was identified, contact with them was established. Once the participants agreed to participate then the researcher administered the questionnaire. The participants were given verbal instructions and assured of confidentiality. The researcher also answered any questions and clarified everything that was not clear. Once the questionnaires have been filled, the researcher collected them for interpretation.

## 5 Findings

### 5.1 Profile of Respondents

Most of the participants (78 %) were between 16 and 35 years of age, and 74.3% had obtained a TVET certificate while 25.7 % obtained a diploma. Table 1 presents the characteristics of the study participants.

**Table 1: Respondent Characteristics**

Characteristic		Frequency	Percentage
<b>Age</b>	16-25 Years	128	34.69
	26-35 Years	162	43.90
	36-45 Years	56	15.18
	46-55 Years	19	5.15
	Above 55 Years	4	1.08
<b>Total</b>		369	100%
<b>Marital Status</b>	Single	178	48.24
	Married	168	45.53
	Divorced	20	5.42
	Widowed	3	0.81
<b>Level of education before joining TVET</b>	Primary seven	4	1.08
	Ordinary Level	266	72.08
	Advanced Level	99	26.83
<b>Qualification After First TVET</b>	Certificate	274	74.25
	Diploma	95	25.75
<b>Current Level of Education</b>	Certificate	135	36.59
	Diploma	168	45.53
	University Degree	66	17.89
<b>Course/Programme Attended</b>	Engineering	39	10.57
	Catering and Hotel Management	63	17.07
	MV Mechanics	17	4.61
	Hairdressing and Beauty Therapy	36	9.75
	Graphics Design	23	6.23
	Labtech, Nursing, and Midwifery	39	10.57
	Fashion and Design	86	23.31
	Plumbing	13	3.52
	Information Tech	20	5.42
	Secretarial Studies	20	5.42

The following tables show the survey results of each indicator, quotes from study participants, and analysis of the findings. Explain why the variables in the characteristics of the respondents were deemed important for the study.

### 5.2 Educational Attainment

One of the preconditions for economic empowerment is education attainment which increases an individual's productivity through the development of work skills, accessibility to productive tools and technologies as well as access to jobs and markets. By the time a student drops out of the formal education system in Uganda, they have few employable skills. The attainment of TVET, therefore, comes in handy to fill this void. The current education level of the respondents was taken as the best indicator for measurement of productivity skills of the respondents given that it reflects their work competencies. Table 2 shows the frequencies on the educational attainment of the respondents.

**Table 2: Respondent's Current Education Level**

		Frequency	Percent
<b>Valid</b>	Certificate	135	36.6
	Diploma	168	45.5
	University Degree	66	17.9
	Total	369	100.0

The findings of the study showed that the respondents had advanced in their educational attainment with 36.6%, 45.5%, and 17.9% at Certificate, Diploma, and University levels respectively. This shows that most of the respondents pursued further education after their TVET program.

### 5.3 Employment Status of Respondents

The career progression of the participants was evaluated by comparing their current position against the previous positions they occupied before TVET. Formal employment was evaluated by considering the availability of opportunities for the graduates to increase their productivity by taking on bigger responsibilities within their organizations through promotion. Informal and self-employment considered their ability to operate and grow the business. Table 3 shows the differences in employment status of the respondents before TVET and their current positions and levels after TVET.

**Table 3: Respondents' levels before TVET and current levels after TVET**

	Respondent's Position at Workplace Before TVET		Respondent's Position at Workplace After TVET	
	Frequency	Percentage	Frequency	Percentage
<b>Management</b>	47	12.7	107	29
<b>Non-Management</b>	113	30.6	228	61.8
<b>Unemployed</b>	209	56.6	34	9.2
<b>Total</b>	<b>369</b>	<b>100</b>	<b>369</b>	<b>100</b>

There was an increase in the number of respondents in management and non-management positions in the formal sector from 12.7% to 29.0%. In the informal sector, respondents moved from non-management at 30.6% pre-TVET to management at 61.8% post-TVET. From the qualitative section of the study, one respondent, now working at one of the governments establishments at the time of the interview, mentioned that a few years after her diploma, she underwent further training leading to a higher diploma in her field. Thereafter, she was promoted to the position of manager in charge of one of the laboratories. In her submission, the training not only earns her a decent salary but has propelled her to a level where she sits in high-calibre meetings that make key decisions of the organisation. Therefore, her social and economic capital has risen because of the increase in salary. Table 3 also shows that there was a significant reduction among those not employed from 56.6% to 9.2%. The acquisition of TVET enabled the respondents to engage in economic activities through different employment options in both the public and private sectors and through self-employment. The interviews revealed that self-employed respondents established their businesses following their professional lines. Several of those who were self-employed were not successful when they tried to gain formal employment and opted to start their own businesses with the little capital they had.

#### **5.4 Business Practices**

Since current business trends require reliable data to improve business profiles, business practices were evaluated based on the ability of the respondents to maintain business records to steer business success. The findings showed that out of 238 graduates that engaged in some form of business related to their TVET training, 84% of them kept business records. The records kept were however mainly for the physical products stream but not their earnings. Out of 218 respondents, 82% said they separated personal from business

expenditure while 18% did not. This shows that most participants have been able to improve their business records-keeping through TVET.

### 5.5 Work Environment Safety

Work environment safety is defined as a risk-free environment where organizational policies and procedures are in place for promoting safety at the workplace. In this study, work safety also included aspects of physical safety-sensitive to women and the flexibility of working hours. Table 4 shows the results.

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Yes	318	86.2	86.2	86.2
	No	11	3.0	3.0	89.2
	N/A	40	10.8	10.8	100.0
	Total	369	100.0	100.0	

The results showed that 86% of the respondents felt their work environment was safe while 11% felt otherwise. Most of the respondents who felt unsafe were those whose work revolved around electricity currents, fire, hot substances, and dangerous substances such as acids, heavy metals. Some were exposed to the hot sun most of the time. One respondent now working as a technician with a private electric company explained:

One can never feel safe around electricity, not for women, not for anyone. Whereas there are safety standard operating procedures, working around electricity is like driving a vehicle. Any slight loss of concentration during work may be fatal. People are electrocuted quite often especially those that work with the service electric cables and that's why I have resorted to concentrating on electrical installations within buildings even when service electrical jobs have more avenues of generating extra income.

Flexibility in working hours depended on official arrangements made at the workplace such as varying starting and ending times, working part-time, flexible leave, shift selection, off-peak, remote work, contract work, and ample sick leave. These were meant to allow the employees to vary their work arrangements while still providing services to their

employer. When asked if their work schedules enabled them to attain a balance between their work and family responsibilities, the majority (84.6%) indicated there was a degree of flexibility at their workplace. However, 4.9 % felt there was no flexibility, and 10.6% of felt the question was not applicable to them since they were not in employment. Much of the flexibility in time largely depended upon the workplace schedules and business demands.

## 5.6 Income

**Table 5 Respondents' present monthly earnings/income in kind or cash in UGX from their current employment**

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	100000-200000	3	0.8	0.8	0.8
	2000001-300000	1	0.3	0.3	1.1
	300001-400000	69	18.7	18.7	19.8
	400001-500000	122	33.1	33.1	52.8
	Above 500000	142	38.5	38.5	91.3
	No regular income	32	8.7	8.7	100.0
	Total	369	100.0	100.0	

Income generation is a measure of women's economic empowerment. The study collected data on women's ability to generate income before and after enrolment into TVET. Before enrolling in TVET, 30.4% of the respondents had no income, 54.8% had very low income below 300,000 and 8.4% had an income above 400,000. I think the low income was as a factor of the position and industry in which they were working. After completion of TVET however, the number of respondents that had no income had reduced to 9.2%. There was also a reduction in the number of TVET graduates who were earning extremely low incomes (below 300,000 UGX) from 15% to 11%. I think this is because the skills obtained in TVET enabled them to acquire more income. The most significant change was registered in the moderately high-income bracket above 300,000 that increased from 9.3% to 66.2%. Most of the respondents who were gainfully employed earned moderately high income above 400,000 with fewer earning low incomes or earning no income at all.

## 5.7 Alternative Income

**Table 6 Alternative income besides major job or business**

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Yes	194	52.6	52.6	52.6
	No	135	36.6	36.6	89.2
	N/A	40	10.8	10.8	100.0
	Total	369	100.0	100.0	

The findings in table 6 above show that 52.6% of the respondents had been able to establish alternative sources of income. 36.6% had no source of extra income while 10.8% had not established any source of income yet. The 52.6% were able to have sources of extra income because many of them realised that they had some free time to earn extra income. Those in business realised that they could sell both products and services. For example, a TVET graduate dealing in textile materials could also offer tailoring services. Some of those in the electrical field were also engaged in offering their services to other clients beyond their formal employers. This extra income made the women more independent and gain confidence. One graduate of electrical installation working at one college had this to say:

My job rotates around the maintenance of electrical installations. However, I do not do maintenance every day. I only must be on standby in case something requires my attention. Using my income and relaxed schedule, I have been able to set up a kiosk selling electrical materials. At the same time, my telephone number is displayed at the kiosk, and hence several times I get electrical installation jobs that help me sell my materials as well. That way, I can earn income from two extra sources, in essence, the profits on materials sold and labour charges that supplement my salary. With this arrangement, I am also able to provide employment to my young brother who works at the kiosk when I am not available.

A further analysis was carried out across the population characteristics for this study to establish if there were any variations in income across the parameters. This was done through cross-tabulation of respondents' current income against the level of education, marital status and course attended. The results are hereunder presented.

Table 7 Respondents' level of income against course taken

Respondents' level of income										
Course undertaken	No income	Low income	Moderate income	High income	Totals					
	value	%age	value	%age	value	%age	value	%age	value	%age
Engineering	4	10.3	1	2.6	2	5.1	32	82.1	39	10.7
Catering and Hotel Mgt	6	9.5	6	9.5	43	68.2	8	12.7	63	17.3
MV Mechanics	2	11.8	0	0.0	1	5.8	14	82.4	17	4.68
Electrical installation	0	0.0	0	0.0	4	30.7	9	69.2	13	3.5
Hairdressing and beauty therapy	0	0.0	2	5.6	33	91.6	1	2.8	36	9.9
Graphics Design	2	8.7	4	17.4	15	65.2	2	8.7	23	6.3
Lab Tech, Nursing and midwifery	6	15.4	2	5.1	11	28.2	20	51.3	39	10.7
Fashion and design	16	18.6	14	16.3	42	48.8	14	16.3	86	23.6
Plumbing	0	0.0	1	7.7	12	92.3	0	0.0	13	3.5
Information Tech	0	0.0	8	40.0	12	60	0	0.0	20	5.5
Secretarial studies	0	0.0	3	21.4	10	71.4	1	7.1	14	3.8



From the research results in the table above, it was established that there was a significant variation in income by courses pursued. The traditionally male-dominated courses, namely, engineering, motor vehicle mechanics, and electrical installations registered very high percentages of respondents in the high-income bracket at 82.1%, 82.4%, and 69.2% respectively. On the other hand, whereas the three traditionally female-dominated courses constituted half the number of respondents, very few of them belonged to the high-income category. These include catering and hotel management (12.7%), fashion and design (16.3%), and hairdressing (2.8%). Information technology graduates dominated the low-income category with 40% followed by graphics design (17.4%) and fashion and design at 16.3%. The implication is that the course undertaken plays a big role in economic empowerment through influencing incomes.

### 5.8 Power and Agency Dimension

Power and agency in this context mean the capacity of female TVET graduates to make choices and act on their decisions to fulfil their own aspirations. Decision-making of women is very much important as it increases their bargaining power and promotes economic empowerment. If women are empowered, they would be able to participate in the planning and decision-making tasks and contribute to the development programmes and activities independently. Women's confidence and self-esteem increase when they have greater knowledge, economic assets, and income-earning capacity, and they are more likely to participate in both private and public decision-making.

### Property Acquisition and Control

**Table 8** What property do you own

Frequency		Percent	Valid Percent	Cumulative Percent	
Valid	Land	82	22.2	22.4	22.4
	Animals	15	4.1	4.1	26.5
	Machinery and Equipment	67	18.2	18.3	44.8
	Houses	11	3.0	3.0	47.8
	more than one in list	106	28.7	29.0	76.8
	No property	85	23.0	23.2	100.0
	Total	366	99.2	100.0	
Missing	System	3	0.8		
Total	369	100.0			

Golla et al. (2011) identifies property acquisition and control as one of the indicators of economic empowerment. In this study, property was specific to productive assets such as land, houses, machinery equipment, and livestock. From the findings, it was established that 76.4% of the respondents had acquired some property; 22.2% had acquired land; 4.1 % acquired animals; 18.2% acquired machinery and equipment, 3% owned houses; and 28.7% had more than one of the properties mentioned. Of those who acquired property, 45% used savings from their own income while 24.4% used credit facilities from a bank or Village Savings and Loan Associations to acquire property. Women's ownership of and control over property and assets contributes to a wide range of positive development outcomes for women and their families. Securing rights to property and assets for women can play an intrinsic role in eradicating poverty, reducing gender inequality, and fostering global prosperity more broadly. TVET has enabled more women to gain skills and confidence in property ownership. Only 6% just inherited the property. In terms of control over assets and decision-making, 65% of the respondents irrespective of their marital status said that they had access and control over the property they had acquired on their own and could make decisions without consulting anyone. 18.7% said they did not have total control and in most cases needed to make some consultations before making major decisions regarding property. They felt that property once acquired becomes family property and decisions made may affect other family members in one way or another.

**Table 9 How did your TVET qualifications help you in acquiring this property?**

Frequency		Percent	Valid Percent	Cumulative Percent	
Valid	Purchased from savings	169	45.8	46.2	46.2
	Purchased from Loan	90	24.4	24.6	70.8
	Inherited	24	6.5	6.6	77.3
	N/A	83	22.5	22.7	100.0
	Total	366	99.2	100.0	
Missing	System	3	0.8		
Total	369	100.0			

Table 9 shows that 45.8% acquired property using savings from their own income while 24.4% used a credit facility from a bank or village savings and loans association to acquire property. Only 6% had just inherited the property. One of the reasons for women's vulnerability is the lack of access to productive assets. With the acquisition of TVET skills,

women are able not just to access but buy their own productive assets that is a manifestation of economic empowerment.

### **Ownership of Property and Assets**

Through TVET, women were capable of securing employment opportunities or start their own businesses which provided them with income that enabled them to purchase or invest according to their priority choices. Owning property does not mean an individual is economically empowered unless he/she can exercise considerable control over it for the enhancement of one's well-being. There is a common notion about the patriarchal society that men tend to own and exercise control over productive assets of their families such as land, animals, equipment, and machinery, which has disempowered the women economically. In this study, the respondents were asked for their role in major household decisions especially on productive assets as a measure of economic empowerment. This was especially important because they contributed to the household income.

**Table 10 Access and control over the property regarding decisions such as sale \*Marital Status of Respondents Cross tabulation**

	Marital Status of Respondent					Total
	Single	Married	Divorced	Widowed		
Do you have access and control on the property regarding decisions like sale?	Yes	118	108	15	1	242
	No	26	39	4	1	70
	N/A	34	21	1	1	57
Total	178	168	20	3	369	

65% of the respondents held that they had access and control over property they had acquired on their own and could take decisions even without consulting anyone. This was the case regardless of the respondents' marital status. Ownership of land and property empowers women and provides income and security. Without resources such as land, women have limited say in household decision-making and no recourse to the assets during crises. 18.7% said they did not have total control and in most cases needed to make some consultations before making major decisions regarding property. They felt that property once acquired becomes the family property and the decision made may affect other family members in one way or another. There was some variation in the respondents' access and control over properties by marital status. Fewer married respondents than the single ones felt they had unrestricted access and control over

property at 108/168 (73.4%) and (82%) respectively. This was because their husbands and children in some cases had to be consulted before major decisions such as the sale of their family dwelling house was concerned. Regardless of the consultations required especially for the marrieds, there were high degrees of economic empowerment among the respondents with rates above 70%. Such levels of economic empowerment were only possible because of TVET training and skills that facilitated them to secure the property.

## 6.0 Discussion

Based on the findings, it is evident that providing TVET is a vital intervention in efforts to empower women and alleviate poverty. This is consistent with the literature that contends that if women are provided with employable skills that allow them to enter labor markets, the prevalence of unemployment, poverty, and other repercussions of social and economic exclusion will be decreased in Uganda (Alhasan & Tyabo, 2013). According to the survey results, all the concerns pertaining to TVET female graduates demonstrated that the respondents' economic situation was constrained prior to the start of the TVET programs. TVET in Uganda has prepared women for the labor market and self-employment through the production of quality skilled human resources with the right attitudes and values required for growth and prosperity of the various sectors of the economy, allowing them to develop economically and gain agency. Pavlola's (2014) study agrees with this finding as he categorically highlighted the roles of TVET in women economic empowerment. It was evident that women who pursued courses in male-dominated professions like engineering reaped larger economic rewards. This highlights the necessity of providing incentives and support mechanisms for women to overcome cultural obstacles and pursue degrees in historically male-dominated areas.

## 7.0 Conclusion

This study investigated the contribution of technical and vocational education and training to women's economic empowerment in Kampala, Uganda. The data indicates how respondents feel about the training's success and efficacy, as well as how they recognize the changes it has brought about in their lives. Women are becoming more socially, economically, and politically empowered as a result of their regular participation in reshaping social and economic institutions using the information and skills gained through TVET. Women who are economically empowered may now have higher productivity. Companies greatly benefit from increasing employment and leadership opportunities for women. Local stakeholders should value role models and offer them with more advanced vocational skill development training in male-dominated sectors such as engineering.

When women attend vocational training, they gain skills. These skills provide them with access to employment opportunities. These employment opportunities give them access to their own funds. Having their own funds leads them to agency, which is an individual's ability to make and act on own choices. They also have access to resources to make the decision, including authority to make decisions. Finally, when they have access to finance, agency and decision making they are bound to have achievements which are the outcomes from decision making. For women to enjoy social and economic empowerment they need autonomy, self-confidence, ability to act individually, strong social relationships and influence. One aspect that must be addressed is the issue of perception. Vocational training centers are still subject to negative perceptions where people think that they are "lesser" institutions. The vocational centers need to shed the label that they are for failures, that they are lesser institutions and that they are not prestigious enough. Improvement can also come through advocacy. Advocacy is one way to eliminate and reduce discrimination and other harmful practices that people encounter that may hinder their progress.

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