

# CONTRIBUTION OF COMMUNITY BASED TRAINING COMPETENCIES ON YOUTH EMPLOYMENT IN RWANDA

## A CASE OF KIGALI INTEGRATED POLYTECHNIC REGIONAL CENTRE (IPRC)

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**Abstract-** This study seeks to establish the contribution of community based training projects on youth employment in Rwanda. The specific objectives of this study are; to establish the training competence acquired through CBT program/projects content; to find out the youth employability after graduating from CBT program and to assess the social welfare status of CBT graduates resulting from their employment. The study was guided by the following specific objectives: to establish the effect of Carpentry CBT competencies on Youth Employment in Rwanda, to establish the effect of Masonry CBT competencies on Youth Employment in Rwanda and to establish the effect of Hairdressing CBT competencies on Youth Employment in Rwanda. The study employed a descriptive survey design based on a census design.

The target population of 100 was used. A sample size of 80 was drawn by Morgan-Kreljice method. Data was collected using structured questionnaires and document reviews. The reliability and validity of the data collection instruments was tested by Cronbach's Alpha coefficient at an index of 0.70 and based on a 5-point Likert Scale for multiple items obtained from a pilot survey. The content validity of the questionnaires was done by supervisors from the University. Multiple regression analysis, correlation and content analysis were used to establish the effect of CBT competencies on Youth Employment in Rwanda. The findings indicate that there was a significant effect of CBT competencies on Youth Employment in Rwanda. The study recommends that vocational CBT players should ensure that the extent

of integration of CBT Competencies is enhanced in Rwanda.

**Index Terms-** Community based, integrated polytechnic regional center, Rwanda, Training competencies, Youth employment

## 1. INTRODUCTION

More than seventy eight percent (78.7%) of Rwanda's population is below 35 years of age, 57% are youth above 16 years and Unemployment Rate in Rwanda stood at 13.2 percent in February 2016 and averaged 4.70 percent from 2001 until 2016, reaching an all-time high of 13.20 percent in 2016 and a record low of 1.00 percent in 2001 (Trading economic, 2017). This situation in Rwanda is connected to a UNESCO report on youth and skills, working below the poverty line is a much more widespread phenomenon than not working at all (UNESCO, 2012). The second economic development and poverty reduction strategy (EDPRS 2) set out target of creating 200,000 off-farm jobs annually to speed up employment growth (EDPRS, 2013). Realizing the untapped potential of youth, with increasing high unemployment levels among this group, it is critical to create employment opportunities, to foster social desirable changes for the youths which will enhance self-reliance (UNFPA, 2014).

Active labor force in Rwanda is at 63% of the whole population, underemployment stands at 65% with unemployment youth at 8% and 3% in urban and rural

areas respectively. This alone meant that there was a stiff competition between the youth with formal training and those without (RBOS 2012). In order to address the rampant youth unemployment, young people would derive considerable benefit from Community Based Training (CBT) programs by acquiring various vocational skills (Barab & Hay, 2001). CBT in part, was also described as apprenticeship because it involved the learner within an actual physical context of practice to learn side by side with an expert to master a specific skill or task (Pratt, 1998). The proponents of the Community Based Training worldwide believed it enhanced the innovations in both government and non-government policies and programs (Barab & Hay, 2001). In support of the above, Ghazala and Rao, (2003), asserted that Community Based Training Program was primarily targeted to the poor and marginal groups. The technical experts mostly from vocational and technical institutes go to the communities with youth organized groups mostly who couldn't access formal training institutions and train them according to the local tailored needs.

The International Monetary Fund (IMF, 2010) observed that; Community Based Training is one of the ways of developing human resources and essential if Rwanda was to be transformed from predominantly peasant-based economy to just a peaceful and prosperous middle-income country. In 2008, IPRC took up a social responsibility of training the communities by providing vocational skills and life skills knowledge through Community Based Training Programs (CBT) by mainly targeting the unskilled unemployed youth in various communities from the districts of Kicukiro, Huye, Rwamagana, Musanze and Muhanga (IPRC, 2012). The goal was to empower people in these communities with market driven skills especially through the youth to enable them improve their livelihood through outreach programs. This has enabled many youth graduates and alumni of IPRC to create jobs and become self-reliant (IPRC, 2012).

The vocational and technical skills offered by the institute have enabled the youth to benefit from gainful employment opportunities which is promoting self-reliance among them (IPRC, 2012). IPRC has trained and certified a considerably huge number of

people since inception in 1988. The institute was specialized in providing training that is production oriented with emphasis in practical work, which takes seventy percent (70%) of the course content (IPRC, 2012). The institutes' vocational education was benefiting the youths of various educational levels and backgrounds including mainly Primary Leavers among others with knowledge and practical skills in Bricklaying & concrete practice, Wood curving, Carpentry and Joinery, Electrical Installation and Basic Electronics, Plumbing and sheet Metal works. Other disciplines included Motor vehicle mechanics, Business Studies, Catering and hotel management, Textile technology and nursery teaching, with emphasis on promoting HIV/AIDS awareness among others (IPRC, 2012). Under the Vocational Community Based Training (CBT) program, IPRC has a follow Up Program (FUP) that acts as a link to the industry for employment opportunities to the old students to coordinate and placing students for industrial training. Under this program, 200 old students are visited, serviced, encouraged and assisted to form associations, access microfinance services, and a tool lease scheme at the institute or any other established credit institution in their areas of

operation. Seminars and workshops are also organized for their additional training and sensitization. CBT directly responded to community needs (IPRC, 2013).

According to the International Labor Organization (ILO, 2012), Rwanda's measured unemployment rates were relatively low for the region but steadily growing as the percentages of youth population increased. Unemployment varied across regions and settings: urban to rural, very high in urban centers than rural in the country. The female youth's unemployment levels were as twice high compared to their male counterparts. Surprisingly, ILO noted that unemployment increased with the level of education attained in Rwanda: Unemployment was lower among persons with no education and primary education, and higher among those with secondary education and above. More educated youth were biased towards wage-paying formal jobs, (white collar jobs) which were harder to find. This was partly due the mismatch between what was taught and what the community needed or demanded. Hence the researcher was motivated to establish the contribution of vocational Community Based Training (CBT) programme to youth employment.

Rwanda's population is largely youthful, presenting both opportunities and challenges (UNFPA, 2014). If all the stakeholders such as government, communities, religious institutions, among other did not give due attention to the problem of high youth unemployment levels in the country which stood at 75% (RBOS, 2012), against the world's 40% (Global Agenda, 2013), UNSCO argued that youth were to remain a barrier to the region's development (UNESCO, 2012). Today young people need not only a job, but training such as CBT that enables them to be absorbed into the labour market and to make meaningful contributions to their country as workers, citizens and agents of change (ILO, 2008).

### ***Statement of the Problem***

According to 2012 Action Aid Report "gaps in youth policy programming in Rwanda". Poverty, unemployment and underemployment are the major problems affecting the Rwanda's youth accounting for 65%.The report attributed this to low level of employable skills, poor access to resources such as land and capital, negative attitudes towards work and gender discrimination among others. Apparently Unemployment for Rwandan youth is currently at

4.1% (Rwanda job desk, 2015) but still going higher. This figure can be reduced, if the youth acquired relevant strategic skills and training. Vocational Community Based Training (CBT) is one of the recommended ways to achieve this (World Development Report 2013). Related training was introduced in Rwanda by IPRC in 2000 as a social responsibility to address the mismatch between what is formally taught and what is demanded in the communities. Under this program, the youth are trained and provided with market demanded vocational life skills and knowledge through outreach/field based program to improve their livelihoods (IPRC, 2012). Hence this research's interest was to examine the contribution of vocational community based training offered by IPRC to youth employment.

### ***Objectives of the Study***

#### ***Main Objective***

The broad objective of the study seeks to assess the contribution of Community Based Training Competencies on Youth Employment.

### ***Specific objectives***

1. To analyze the effect of Carpentry CBT competencies on Youth Employment in Rwanda
2. To determine the effect of Masonry CBT competencies on Youth Employment in Rwanda
3. To determine the effect of Hairdressing CBT competencies on Youth Employment in Rwanda

### ***Research Questions***

The researcher will be guided by the following research questions:-

1. What is the effect of Carpentry CBT competencies on Youth Employment in Rwanda?
2. What is the effect of Masonry CBT competencies on Youth Employment in Rwanda?
3. What is the effect of Hairdressing CBT competencies on Youth Employment in Rwanda?

### *Scope of the Study*

This study seeks to establish the contribution of vocational community based training to youth employment at IPRC-Kigali. The institute was chosen for the study because it is a pioneer institute of the vocational CBT program in Rwanda. Great emphasis is to find out how the vocational BT program had enabled the youth attain employable skills, create, access and manage employment opportunities by examining the youth graduates with various practical and employable skills such as masonry, hairdressing and carpentry, among others hence the research's interest. The study was carried out at IPRC Headquarters and the neighborhood where some of the graduates were located. The Institute is situated in Kigali. The study took a period of seven months from 15th May to December 15<sup>th</sup> 2016. Vocational CBT is an outreach programme conducted by the Institution to the vulnerable youth from communities surrounding the institute with an approach of equipping them with appropriate Skills based on their identified needs in order to improve their livelihood (IPRC, 2013).

### *Significance of the Study*

The study findings provide empirical data that would explain the contribution of vocation community based training to youth employment. The empirical data shall inform policy makers at the same time assist them to formulate appropriate youth employment policies for the governments, organizations, agencies, and departments. The generated data shall contribute to the already existing knowledge and literature about youth unemployment hence benefiting JKUAT University students, academicians and researchers as reference literature. The study would provoke further research for more detailed information with further development as regards youth employment.

## 2. LITERATURE REVIEW

### **The Human Capital Theory**

Developed by Smith (1776) and re-invigorated by Schultz (1961) postulates that education and training are a form of investment in human beings. The underlying belief then is that education and training creates assets in the form of knowledge and skills, which in turn increases the productivity of the worker. Schultz argued that skilled human resource has been able to acquire these skills as a result of community support and training programs or investment in the existing human resource through appropriate on-the-job training. According to Flamholtz & Lacey (1981), human capital theory proposes that people's skills, experience, and knowledge are a form of capital (employment) and that returns are earned from investments made by the employer to develop these attributes. The human capital theory holds that employees should invest in specific training to enhance employees' career path prospects. Thus, the human capital perspective at the level of the Institute such as IPRC vocational the emphasis is on relevant and strategic skills' development for the youth to enable them access employment opportunities.

Davenport (1999) suggests that the human capital perspective is also illustrative of the employee's point of view. He contends that employees are not costs, factors of production, or assets, but rather investors in a business and market. They invest their own human capital, and they expect a return on their investment. Davenport further indicates that the predisposition for an employee to invest their time in an organization is based on sense of commitment. Vocational community Based training programs may be viewed as generalized investments in human capital particularly for the youth. Such investments can reassure employees that the expenditure of their time in the community led intervention to curb youth unemployment has contributed to their development and thus improved their livelihoods. Vocational Community Based Training (CBT) for the youth increases their competitive advantage to access employment which is a strategic interest for development (Ginn & Terrie, 2001). For the youth graduates, human capital theory justifies the importance of relevant skills acquisition to enable them improve their lives. CBT has thus, added value to human resource hence become skilled hence the

program is perceived to contribute to youth's employment.

### ***CBT Competences***

Youth unemployment in Rwanda is the highest in Africa. A recent study, ***“Lost opportunity: Gaps in Youth Policy and Programming in Rwanda”***, published by Action Aid, put youth unemployment at 62%, although the African Development Bank says it could be as high as 83%. Rwanda had the world's largest percentage of young people under 30 years of age, they made up to 78% – according to the 2012 State of Rwanda Population Report and by the United Nations Population Fund. Worldwide, there were about 1.2 billion 15- to 24-year-olds, this is about 200 million are in Africa.

The youngest population in Africa of young women and men represented the continent's best hope for getting on a sustainable development path. However, the number of youth that were entering the labour market far outpaced existing job opportunities for them, with youth's unemployment at double the average unemployment rate in the region, the continent was at the risk (AfDB, 2012). Worst of all, there was a severe mismatch between the skills

possessed by young workers and those demanded by employers. Despite the increased enrollments in most sub-Saharan African countries especially at the primary level – the out-of-school population had very low educational attainment and lacked skills to enable them access employment opportunities (World Bank, 2008).

Lack of skills was a global problem (ILO: 2012) said, training institutions continued producing graduates whose skills did not match what the market wanted. This mismatch made it harder to tackle youth unemployment. As much as two-thirds of the young population is under-utilized in some developing economies, meaning they are unemployed, in irregular employment, most likely in the informal sector or neither in the labour force nor in education or training," says the ILO (2013)

La Paz, M. C. and Macey, C. (2007), found out that projects focused on employment linkages recognized that there were two client groups that required attention – firstly, young unemployed people who often lacked appropriate knowledge, skills and attitudes required for today's job market and secondly, employers who required employees with both



appropriate hard and soft skills and attitudes. Also, there was often a perception gap that needed to be bridged in the comprehension that each group had of each other.

In 2000, IPRC took up a social responsibility of training the communities by providing vocational skills and life skills knowledge through Community Based Training Programs (CBT). This program mainly targeted the unskilled unemployed youth in various communities. The goal was to empower the youth from within their communities to enable them improve their livelihood. The institutes move their skilled personnel to various communities and assess the needs of the community and later design courses tailored to community needs such as; Wood curving, Carpentry, Hairdressing, Cookery & flying, Childcare training, Bricklaying & building, Motorcycle repairs, Radio repair, Tailoring, and Painting courses and later train them (IPRC, 2013). These skills are designed for nine (9) months to two (2) years, awarding certificates and diploma.

### ***Youth Employability***

Since the inception of CBT program at Institute in 2001, 500 students have graduated every year with

various vocational skills training programs of the Institute. Over 100 youth have specifically been followed under the follow-up CBT programs, (IPRC, 2013). ILO, (2006) noticed that, creating decent work for young people is a challenge. ILO estimates that at least 400 million decent and productive employment opportunities are needed. ILO, (2006). Today young people need not only a job, but a training that enables them to be absorbed into the labour market and to make contributions as workers, citizens and agents of change.

The worldwide journal: Youth employment (2014), writes that the youth are challenged with starting up a business or work, lack of shared solutions to their problems and lack of shared best practices both for private and public sectors because they have not been prepared with enough skills, information and opportunities to address these challenges. The reality is that there are too few employers and employment opportunities to meet global youth employment requirements.

The worst working conditions and lack of opportunities in rural areas have encouraged the youth to migrate to urban centers. But because Rwanda has

not yet immersed her transition to industrialization, urban centers cannot create a massive number of jobs. Modern agriculture has considerable potential for job and wealth creation and may absorb large number of youth. However, making well balanced choices for employment-intensive investments in agriculture and rural nonfarm activities through Vocational Community Based Training can create immediate short term employment opportunities which can be more easily tapped by the youth group. (Innovations Journal - Special Edition on Youth Economic Opportunities-2013).

Besides expanding rural job opportunities, it is also necessary to improve the investment and macro-economic environments; encourage and support entrepreneurship and the informal sector; improve access to education and skills; address the demographic issues, including early motherhood; tackle the problem of youth in violent and post conflict settings; and improve the labor market conditions. These are the most needed policy responses to tackle youth employment issues in a sustainable manner in Africa. (**Youth and Employment in Africa: The Potential, the Problem, the Promise journal (2014)**)

Manpower group, (2013) Concludes: That the rationale for employer initiatives to promote youth employability was simple: Businesses that can strategically source, manage, and create needed talent for the long term will be able to seize emerging economic opportunities, while those that failed to address this challenge will be outperformed by their competitors. Individuals who are given access to learning opportunities and who can cultivate the right skills will thrive in the labor market and contribute to the organizations that employ them. Manpower Group identified four key barriers to youth employability as below: lack of information, networks, and connections, lack of relevant skills, lack of experience credentials, and lack of available entry-level jobs with career potential.

Five groups of solutions were identified that can be adopted by employers and youth employment policy implementers as below: Provide career guidance to youth and participate in information systems and programs, engage with training-to-employment programs for youth, engage with apprenticeship and experience programs such as CBT, commit to hiring, training and mentoring young people and Promote youth entrepreneurship.

The key to reducing unemployment and informality the youth is rapid growth of good jobs through skills development. These are employment places capable of paying good wages and building skills. If the history of those countries that have successfully sustained growth, job creation and poverty reduction is any guide, creating such good jobs will require significant structural change and education special skills training. Economies that have made the transition from low income to high income status typically have experienced significant such changes in their economic structure (Kuznets, 1955; Chenery, 1986).

### ***The Social Welfare of CBT Graduates***

With the exceptions of Botswana, Nigeria and South Africa – all of which have high youth unemployment rates – less than 20 percent of Africa’s young workers find places in wage employment. Most of these jobs offer low wages, few benefits and few opportunities to build their employment career. Over 70 percent of young workers in Congo, Congo DRC, Ethiopia, Ghana, Malawi, Mali, Rwanda, Senegal, and Uganda are either self-employed or contributing to family work (AfDB, 2012).

Pezzullo, S. (2006), acknowledges that, an important message from CBT was that while young people have needs and deficiencies, they also come with unique strengths, contributions and creativity. Starting with this “full half” as opposed to the “empty half” view of their life experiences was a strong philosophical direction. For example, “Youth Opportunities Unlimited in Canada” strongly focused on “what is it that the young person brings to the table and what can we do to strengthen those contributions and assets.” Equally, most projects highlighted the need for young people to be seen as active and creative partners in any youth development initiative.

The proponents of the Community Based Training targeting the youth worldwide believe that this program enhances the innovations in both governmental and non-governmental policies and programs (Barab& Hay, 2001). In comparison with the hundred thousands of young men and women yearly entering the labour market, only an infinitely small part has access to a Vocational Training Centre. The livelihood of the youth who have been trained under CBT continue to progress because of the “on the job experience” in form of informal enterprise. (Katharina Engels, Doris Bremm& Thomas Gerhards:

2000).Community Based Training has a proven track record of success. Success comes easy because the program benefits everyone involved. This program offers youth the opportunity for success while helping the employer with filling high turnover, hard to fill positions with trained employees.

In Uganda, BRAC (2013), through similar initiatives of CBT have supported more than 1,305 clubs in youth livelihoods trainings. This program has reached 55,000 adolescents both female and male in Karamoja region. Youth have been supported with apprentice training, vocational trainings, and savings knowledge, and many youth have been able to create opportunities vital to work on social and economic empowerment simultaneously.

Globally, the World Bank works with a group of five closely associated institutions – the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA) and the International Centre for Settlement of Investment Disputes (ICSID). To provide loans and grants as well as policy advice, technical assistance

and knowledge-sharing services to low and middle income countries to foster employment creation for youth (World Bank, 2013).

### ***Global perspective on vocational CBT***

The UN, youth and education journal of 2015 states that Education and knowledge are central to development and to the improvement of the lives of young people globally, and as such has been identified as a priority area in internationally agreed development goals, including the Millennium Development Goals and the World Programme of Action for Youth. Skills acquisition is important in eradicating poverty and hunger and in promoting sustained, inclusive and equitable economic growth and sustainable development. Despite significant improvements in increasing primary school enrolment in different parts of the world, particularly Africa, the Millennium Development Goal of achieving universal primary level education by end 2015 is unlikely to be met.

In addition, at the World Education Forum (Dakar, Senegal, 2000), 164 governments pledged to achieve “Education for All” (EFA) by launching a world movement to meet the basic learning needs of all

children, youth and adults. Participants at the Forum identified six goals to be met by 2015, with young people being the focus of Goal 3: 'Promote learning and life skills for young people and adults'. The goal commits countries to ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programs. However, the realization of all six goals provides the best opportunity and environment for youth to benefit from education and training particularly the training that addresses their needs.

Surprisingly, many education and training systems do not provide young people with the basic skills needed to escape poverty and unemployment, even when they continue to receive formal education. Non-formal education programs such as CBT seek to fill this gap by providing learning and skills development opportunities that are relevant to the context in which young people live and seek their livelihoods. Often provided through youth and community based training programs as a non-formal education, facilitates the learning of life-relevant knowledge and skills, especially for disadvantaged and marginalized groups (UN, 2015).

UN data on youth indicates that from 2011, the developing countries' percentages of non-literate youth is 12.1%, with Sub-Saharan Africa's percentage standing at 29.6%, and South and West Asia standing at 18.5%. In 2013, about 225 million youth, or 20% of all youth in the developing world, are "idle" – not in Education, employment or training by 2015. Greater focus on universal access to education, quality education, human rights education and learning, as well as increased access to the complementary nature of vocational community formal and informal education practices in a non-discriminatory manner - particularly for young women is key for young people to be able to address their aspirations and challenges, fulfill their potential, and influence current and future social and economic conditions and opportunities. United Nations and Education Knowledge and education are key factors to the full and effective participation of youth in the processes of social, economic and political development. Increased attention to improving participation rates of young people, particularly marginalized youth, is needed to ensure that they acquire the knowledge, capacities, skills and ethical values needed to fulfill their role as

agents of development, good governance, social inclusion, tolerance and peace (UNESCO, 2015).

ILO (2005) states that knowledge-based technology is driving globalization, many countries such as Thailand, China, and other regional countries have transformed, or are in the process of transforming, their economic base from commodity or manufacturing to knowledge and technology-based.

This process of change is bringing into question the quality of existing workforces and the way in which governments and enterprises are responding to human resource development, particularly in knowledge-based economies. It raises the question of whether education and vocational training systems are able to meet the enormous demands to train and retrain workers quickly enough and with the required skill adaptability to meet the challenge of knowledge-based, market-driven economies. As a consequence, young people today are expected to acquire a much higher level of knowledge and skills than was required 20 or 30 years ago. However, the question today is; how well does education and training systems prepare young people with the ability to access knowledge, assimilate it and adapt and apply it in today's technology-driven workplace and in society as a

whole. Dr. Sam Ian Ward (2015) states that Skilling Youth for Employability through vocational community based training is part of the solution to empower the vulnerable youth who live in the developing countries. Accounting that more than 1 billion people today are between 15 and 25 years of age and nearly 40 per cent of the world's population is below the age of 20.

At the 62<sup>nd</sup> session of the General Assembly in 2007, the critical role of both formal and non-formal education in the achievement of poverty eradication and other development goals was reiterated. Also emphasized was the need for basic education and training for eradicating illiteracy; the importance of commitment in striving for expanded secondary and higher education, especially for girls and young women; and the creation of human resources and infrastructure capabilities and the empowerment of those living in poverty (UNESCO, 2015).

It is clear that many education and training systems are not adequately preparing students to meet the demands of a globalized world. The EFA Global Monitoring Report 2011 indicates that despite progress towards the EFA goals, millions of children

are graduating from primary school with reading, writing and numeracy skills far below expected levels. Too often, the quality of secondary education is weak and the content is not relevant for young people and is not connected with the world of work. The persistence of youth unemployment and under-employment suggests that mechanisms for anticipating and developing skills relevant to the world of work are not functioning to the level necessary.

Increased efforts are needed to ensure that education at primary, secondary and tertiary level is respondent to the needs of young people and the realities in which they live, so as to adequately equip them for participation in social and economic life. Scaled up efforts to ensure quality teacher training, the development of appropriate and gender sensitive learning materials, safe educational environments, including efforts to eliminate bullying, and delivery of education in an equitable, gender sensitive and violent free manner are the cornerstones of providing an education for all. The development of policies and programmes to increase the use of ICT in education should be strengthened and recognized for its importance in the provision and evaluation of

education, as well as an invaluable skill for young people. Non-formal education should not be seen as an alternative to formal education, but rather recognized for its complementariness in providing a more fully rounded and skills based approach, equipping youth to meet the competing demands of work and personal life. Non-formal education should not be seen as an alternative to formal education, but rather recognized for its complementariness in providing a more fully rounded and skills based approach, equipping youth to meet the competing demands of work and personal life (The UN youth and education journal of 2015).

Programmes to equip young people with the skills for the world of work must provide technical and vocational education and training (TVET), combining classroom education with workplace training, and technical training with communication, problem solving and entrepreneurship awareness. Otherwise, young people will find it difficult to find a job, to stay in employment, to move on in the workplace, and, more broadly, to succeed in lifelong learning. TVET programmes frequently provide training for a specific job, yet employment opportunities and the fast changing technology require adaptability and permanent skills development. Hence, increasing

employability requires consideration of both short- and long-term perspectives, enabling young people to seize immediate employment opportunities while also equipping them with the ability to continue learning and be able to adjust to changes in the workplace and career opportunities. There is an urgent need to transform TVET so that more young people and adults have opportunities to develop the skills they need for work and life. This transformation calls for putting TVET in a lifelong learning perspective and supporting deeper linkages between different policy areas such as youth policies, rural development, industrial development, poverty reduction, etc. At the same time, it emphasizes the need for broad partnerships which involves national stakeholders. The past twenty years have been marked by the emergence of new and innovative forms of collaboration between public and private actors in the area of education. For instance, the private sector has both a key role to play, and a great interest, in providing youth with the relevant knowledge, skills and attitudes they need, for example through work-based learning including apprenticeships, alternative training and internships (UN 2015).

Governments in developing countries must play their responsibility of creating enabling socio-economic and political environment by employing interventions geared to the attainment of quality Technical and Vocational Education and Training (TVET) output at the same time creating a friendly climate for investment by industries. This will encourage investors to invest and thereby create jobs in order to absorb the unemployed youths from our TVET institutions. Some recommended interventions to ensure quality TVET output that fulfills requirements for productive youth employment and decent work is achieved through collaborative key stakeholders include: a) To raise the public profile and attractiveness of TVET among learners, families and all other stakeholders, including through the media, and inform them on the possibilities for progression, employment and self-fulfillment that TVET can offer (Thomas, 2014)

### 3. METHODOLOGY

#### ***Research Design***

This study used a cross-sectional research design because it was best suited to gather data from a sample of a population at a particular time as for the



case of this survey. The design was also appropriate for collection of quantitative and qualitative data. In this case, both quantitative and qualitative methods were used. The qualitative data described the knowledge, perception and attitude of the CBT graduates and other stakeholders about on how the vocational community based training contributed to youth employment. Whereas quantitative methods allowed the selection of representative sample and cross tabulation of the findings, all the study objectives would benefit from both qualitative and quantitative research methods as indicated in the findings.

### ***Target Population***

This study was conducted in Kicukiro district at IPRC Institutes Headquarters and the respective surrounding communities. This was purposively selected for three reasons; 1). The institute is known for offering outreach Vocational Community Based Training Programme in Rwanda. 2.) The Institute was accessible by road means of transport so it was easy to locate and reach, 3). Kicukiro being a growing town council in Kigali city had a dual characteristic of urban and rural settings which benefited the survey.

The study population included the IPRC principal, CBT graduates those on the follow-up programme were 100, including the coordinators, the trainers and artisans, community members around the institute, government education officials at the ministry, district and town council levels, and members of Civil Society Organizations (CSOs) especially those supporting CBT programs in various ways. The parent population (CBT graduates whom IPRC kept a truck record of, in their respective communities) was one hundred (100) including, managers and other stakeholders. Taking a representational participation perspective, the target youth graduates were fifty (50), the IPRC principal, two (2) CBT coordinators, eight (8) instructors, seventeen (17) members from the community and two government officials.

### ***Sample Size and Sampling Technique***

The researcher used a sample size of eighty (80) basing on R.V. Krecije and D.W. Morghan sample tables as represented in table 3.1 below. All participants had engagements with the activities of vocational Community Training of IPRC Institute. The key informant interviewees besides qualitative provided quantitative information.

**Table 3.1: Category of Sample Population**

Category	Number
Principal IPRCKigali as Key Informant Interviewee (KII)	1
Coordinator of CBT at IPRCKigali as KIIs	2
CBT instructors/Trainers as KIIs	8
Community Members/CBT Committee Members as KIIs	17
CBT graduates	50
Government Education Officials as KIIs	2
<b>Total</b>	<b>80</b>

***Sampling Method***

The researcher divided the study population into six strata; principal, coordinators, instructors of CBT programme, community Members, CBT graduates, government officials and CSO’s. For each stratum, a proportionate and simple random sampling technique was employed to get the sample. Samples from different strata were added to give the total sample size of eighty (80) respondents particularly the graduates and other stakeholders of CBT program. A purposive technique was applied to select the principal of IPRC Kigali, the coordinators, and government officials, Community officials. The employed technique was effective in terms of cost and

time. However, the researcher other than the stated technique employed other techniques such as observation to increase the validity of the research findings.

***Data Collection Methods***

The study expects to employ a triangulation approach in which different methods were combined. Data will be collected using qualitative and quantitative methods. According to Sarantokos(2013) the quantitative methods involves use of structured techniques of data collection that allow quantification, measurement, and operationalization using quantitative methods of analysis like statistics, on the other hand, the qualitative method of analysis is based on theoretical and methodological principles of symbolic interaction as stated by Bryman (2004). The combination of the two methodologies increases the validity of the research study. The main methods that will be used for data collection included administering of questionnaires to the CBT graduates, coordinators and facilitators. The questionnaires shall provide data that catered for the variables required for analysis with statistical procedures (Creswell, 2003). The checklists shall provide qualitative data and information

expressed in non-numerical terms that explains the analysis from the Key Informant Interviews (Amin, 2005).

### ***Questionnaire***

A structured questionnaire with both open ended and pre-coded questions were employed. Data was collected from CBT graduates and the facilitators. A total of eighty (80) questionnaires were administered respectively. All the questions were adhered to the research objectives, and the three (3) sections corresponded with the objectives of the study.

### ***Face to Face Interviews***

Besides the questionnaires, six face to face individual interviews were also held with the principal, community members, facilitators/trainers, government education officials and graduates. The interviews took place in their offices using the structured checklist with guiding questions. Where necessary the researcher and participants at outside their offices. The researcher posed a guiding question the participant expressed themselves about the community based training and in relation with the study.

### ***Procedure for Data Collection***

The researcher after pre-testing the tools from the Candle Light Institutes for validity and accuracy, the instruments were refined. The researcher was granted an introductory letter from faculty of social sciences of JKUAT (see appendix IV) for the purpose of introducing him to IPRC Institute and other respondents and the purpose of his research. He was given access to the CBT graduates under the follow-up program to proceed with the research study.

### ***Validity***

Validity is the extent to which research instruments measure what they are intended to measure (Oso&Onen, 2008). The researcher used the expert judgment of his different experts to verify the validity of the instruments. To assess this, the two judges were contacted to evaluate the relevance of each item in the instruments to the objectives. The experts rated each item as either relevant or not relevant. Validity was then determined using Content Validity Index (C.V.I).  $C.V.I = \frac{\text{Items rated relevant by both judges}}{\text{Total number of items in the questionnaire}}$  as shown hereinafter.

$$CVI = \frac{\text{No. of items rated relevant} = 80}{\text{Total no. of items} = 100}$$

As recommended by Amin (2005), for the instrument to be valid, the C.V.I should be at least 0.7. Therefore, the tools were valid at 0.8.

### ***Reliability***

Reliability is the extent to which a research instrument yields consistent results across the various items when it is administered again at a different point in time (Sekaran, 2003). To establish reliability, the instruments were pilot-tested twice on the same subjects at a time interval of four weeks. According to Amin (2005), test-retest reliability was used to measure the extent to which the instrument could produce consistent scores when the same group of individuals was repeatedly measured under same conditions. The results from the pretest were used to modify the items in the instruments.

To ensure reliability of quantitative data, the Cronbach's Alpha Reliability Coefficient for Likert-Type Scales test was performed. In statistics, Cronbach's alpha is a coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. According to Sekaran (2003) some professionals as a rule of thumb, require

a reliability of 0.70 or higher (obtained on a substantial sample) before they use an instrument. Upon performing the test, the results that was 0.8 and above was considered reliable.

### ***Data Processing***

Completed questionnaires were edited and cleaned at the end of each day to check for consistency, completeness, and accuracy of the information given. Errors were eliminated and then data was entered in the computer with a special programme for social scientist known as Statistical Package Software for the Social Sciences (SPSS) which was appropriate for the study. Transformation/processing of raw data into meaningful data required that data was disaggregated into meaningful and related categories then re arranged systematically (Saunders M et al 2000).

### ***Data Analysis***

After the user defining the variable from a set of *variables*, data was entered and a number of cases created. Each variable was coded differently with a number. The system defined all cases entered by variables. Quantitative techniques such as descriptive statistics and inferential statistics (regression analysis) were used to understand relationships between

dependent and independent variables. Qualitative data was analyzed using thematic and content analysis. For qualitative data, coding of responses will be done to create and explain large segments of the data and identify categories. Then themes were identified such as competencies, employability, courses under CBT among others to lend form to the focused codes or themes and help to conceptualize relationships and explanations among the substantive codes then illustrated by quotation or descriptions. Simple descriptive statistics was employed to analyze quantitative data into frequency counts and percentages besides regression modeling. Finally, conclusions were drawn and recommendations were made. The following regression model was used:

$$P = \alpha + \beta_i \sum_{i=1}^{n=3} X_i + \varepsilon_i$$

.....  
.....Eq. (1)

Where;  $P$  is the Youth Employment,  $\alpha$  is Model Constant,  $\beta_i (i=1,2 \text{ \& } 3)$  are the Model Gradients,  $X_i (i=1,2 \text{ \& } 3)$  are Carpentry CBT Competencies, Masonry CBT Competencies and Hairdressing CBT Competencies while  $\varepsilon_i$  is Random Error Term assumed as Normally Distributed,  $\varepsilon \sim N(0, \sigma^2)$ .

### **Data Presentation**

Analyzed data from SPSS software was presented in comprehensive frequencies and percentages tables, correlation tables as well as direct quotes all showing the responses of each category of variables as presented in chapter four.

### **Ethical Consideration**

The introductory letter given to the researcher was used as evidence that the research study was purely academic and the outcomes would be confidential. The research study was based on the research plan which protects the rights and welfare of the individuals researched. The informed consent obtained in advance encouraged voluntary participation of the respondents. Care and security was put into consideration while storing the data. Against this background confidentiality and anonymity issues were taken into consideration during the cause of this research.

**RESEARCH FINDINGS AND DISCUSSION**

*4.1 Profile of the Respondents*

Under profile of the respondent’s data about gender, age, educational background and length of job search of the respondents were analyzed.

*Table 4.1. Gender of the Respondents*

	<b>Frequency</b>	<b>Percent</b>
Male	57	71
Female	23	29
<b>Total</b>	<b>80</b>	<b>100</b>

From table 4.1, 71% were males while 29% were females. This implies that research is free from gender biasness since both male and female were interviewed. However, the findings indicate that the vocational CBT industry is dominated by males.

**Table 4.2 Age of respondents**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Valid 14 - 18	22	28	28
19 - 24	40	50.0	78
25 - 29	13	16	94
30&Above	05	06	100
<b>Total</b>	<b>80</b>	<b>100</b>	

*Age of the Respondents*

Majority of the respondents 50% were aged 19 to 24 years. This was followed by 28% of the respondents being between 14 to 18 years. There were 16% of the respondents between the ages of 25 to 29 years, while 6% were 30years and above. A total 78% of the respondents were within 14– 24 years. This implies that the research finding is reliable since the findings shows that the majority of the respondents were mature in thinking.

*Table 4.3 Education of the Respondents*

From table 4.3, 35% of the respondents have attended

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Valid Never Attended	20	25	25
Secondary	28	35	60
Certificate	14	17	77
Diploma	10	13	90
Under graduate	08	10	100
Post-Graduate	00	00	100
<b>Total</b>	<b>80</b>	<b>100</b>	

secondary education with 25% having not attended

secondary. Also, another 17% had some certificate

level qualification. Only 13% of the respondents were having diploma qualification while 10% had undergraduate qualification. However, none of the respondents had a post-graduate

qualification. The finding presented by the respondents was reliable since the majority was educated.

The data presented here are those collected from the field survey on the Contribution of Community Based Training Projects on Youth Employment in Rwanda.

*Table 4.4 Length of Job Search by the Respondents*

	Frequency	Percent	Cumulative Percent
Valid Less than 2 year	40	80	80
2 - 5 Years	08	16	96
6 - 8 Years	02	04	100
8 Years&above	00	00	100
Total	50	100.0	

The data were collected in response to 80 copies of questionnaire distributed to the respondents which were fully completed and returned.

Respondents were asked to indicate their respective opinion regarding the Contribution of Community Based Training Projects on Youth Employment in Rwanda. Descriptive analysis

Most of the respondents (80%) had less than 1 year of length of job search. This was followed by 16% of the respondents having between 2-5 years' length of job search and 4% of respondents having between 6-8 years length of job search. There was

was then done on the responses. The results were then summarized in Table 4.5 and 4.6

*Table 4.5 Descriptive Statistics for CBT Competencies on Job Assignments*

however none of the respondents having 8years and above length of job search. This indicated that the research findings were reliable since majority of the respondents had got enough length of job search in the vocational CBT sector.

CBT Competencies	N	Job Assignments		Mean	Std Dev
		Frequency	Percentage		
Carpentry	80	63	78.75	2.136	0.672
Masonry	80	55	68.75	2.377	0.458
Hairdressing	80	61	76.25	2.451	0.615

*Presentation of Descriptive on CBT*

*Competencies & Youth Employment in Rwanda*

**Source: Survey Data (2016)**

**Descriptive Statistics**

Table 4.5 indicates that of the 80 respondents, 78.75% of the respondents agreed that CBT in carpentry competencies do affect the youth employability in terms of job assignments in Rwanda. The mean response was 2.136(SD=0.672) indicating not all respondents agreed with this fact. 68.75% of the respondents agreed that CBT in masonry competencies do affect the youth employability in terms of job assignments in Rwanda. The mean response was 2.377(SD=0.458) indicating not all respondents agreed with this fact. 76.25% of the respondents agreed that CBT in hairdressing competencies do affect the youth employability in terms of job assignments in Rwanda.

CBT Competencies	N	Daily Income	
		Frequency	Percentage
Carpentry	80	57	71.25
Masonry	80	63	78.75
Hairdressing	80	67	83.75

Table 4.6 indicates that of 80 respondents 71.25% of the respondents agreed that carpentry competencies do affect the youth daily income in Rwanda. The mean response was 2.325(SD=0.081) indicating not all respondents agreed with this fact. 78.75% of the respondents agreed that masonry competencies do affect the youth income in Rwanda. The mean response was 2.259(SD=0.217) indicating not all respondents

The mean response was 2.451(SD=0.615) indicating not all respondents agreed with this fact.

**Table 4.6: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923 <sup>a</sup>	.852	.851	.156

**Table 4.7: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.331	1	76.331	14.409	.000 <sup>b</sup>
	Residual	4.291	96	.066		
	Total	80.622	97			

Table 4.6  
Descriptive Statistics for CBT Competencies on Daily Income

**Table 4.8: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.934	.155		2.124	.020
	Carpentry CBT	.329	.015	.326	3.464	.000



agreed with this fact. 83.75% of the respondents agreed that hairdressing competencies do affect the youth income in Rwanda. The mean response was 2.532(SD=0.053) indicating not all respondents agreed with this fact.

**Presentation of Inferential Statistics on CBT Competencies & Youth Employment in Rwanda**

**4.3.1 Carpentry CBT and Job Assignments**

The study sought to establish the effect of Carpentry CBT Competencies & Youth Employment (Job Assignments) in Rwanda. An R<sup>2</sup> = .851, indicates that 85.1% of variation in Youth Employment in terms of Job Assignments can be explained by the variance in Carpentry CBT Competencies leaving only 14.9% of the variation in Youth Employment being explained by the error-term or other variables other than Carpentry CBT Competencies. The results indicate that Carpentry CBT Competencies have statistically significant effect on Youth Employment in terms of Job Assignments in

Rwanda. The positive coefficient of determination indicates that there is positive correlation between Carpentry CBT Competencies and Youth Employment in terms of Job Assignments in Rwanda. The beta of Carpentry CBT Competencies is 0.329 with a statistically significant (p=0.000) t-statistic of 3.464. Therefore, the model equation derived was:

$$P_{JA} = 1.394 + 0.329X_1 + e$$

The positive coefficient further demonstrates that a 1% improvement in Youth Employment in terms of

**Table 4.9: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 <sup>a</sup>	.714	.711	.311

**Table 4.10: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.123	1	23.123	9.082	.000 <sup>b</sup>
	Residual	7.285	96	.097		
	Total	80.408	97			

Job Assignments in Rwanda is attributed to a 0.329% improvement in Carpentry CBT Competencies and the high t-statistic value (3.54) indicates that the effect is statistically significant at 95% confidence level.

**4.3.2 Masonry CBT and Job Assignments**

derived was:

$$P_{JA} = 2.141 + 2.432X_2 + e$$

*e*

The positive coefficient further demonstrates that a 1% improvement

**Table 4.11: Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.141	.227		4.742	.000
Masonry CBT	2.432	.0435	.415	4.157	.000

The study sought to establish the effect of Masonry CBT Competencies & Youth Employment (Job Assignments) in Rwanda. An  $R^2 = .845$ , indicates that 84.5% of variation in Youth Employment in terms of Job Assignments can be explained by the variance in Masonry CBT Competencies leaving only 15.5% of the variation in Youth Employment being explained by the error-term or other variables other than Carpentry CBT Competencies. The results indicate that Masonry CBT Competencies have statistically significant effect on Youth Employment in terms of Job Assignments in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Masonry CBT Competencies and Youth Employment in terms of Job Assignments in Rwanda. The beta of Masonry CBT Competencies is 0.432 with a statistically significant ( $p=0.000$ ) t-statistic of 4.157. Therefore, the model equation

in Youth Employment in terms of Job Assignments in Rwanda is attributed to a 0.432% improvement in Masonry CBT Competencies and the high t-statistic value (4.157) indicates that the effect is statistically significant at 95% confidence level.

**Table 4.12: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.899 <sup>a</sup>	.808	.806	.275

**Table 4.13: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.432	1	30.432	14.422	.000 <sup>b</sup>
	Residual	10.242	96	.075		
	Total	80.673	97			

**Table 4.14: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.585	.201		2.907	.005
	Hairdressing CBT	3.225	.011	.221	5.085	.000

*4.3.3 Hairdressing CBT and Job Assignments*

The study sought to establish the effect of Hairdressing CBT Competencies & Youth Employment (Job Assignments) in Rwanda. An  $R^2 = .806$ , indicates that 80.6% of variation in Youth Employment in terms of Job Assignments can be explained by the variance in Hairdressing CBT Competencies leaving only 19.4% of the variation in Youth Employment being explained by the error-term or other variables other than Hairdressing CBT Competencies. The results indicate that Hairdressing CBT Competencies have statistically

significant effect on Youth Employment in terms of Job Assignments in Rwanda. The positive coefficient of determination indicates that

there is positive correlation between Hairdressing CBT Competencies and Youth Employment in terms of Job Assignments in Rwanda. The beta of Hairdressing CBT Competencies is 0.225 with a statistically significant ( $p=0.000$ ) t-statistic of 5.085. Therefore, the model equation derived was:

$$P_{JA} = 1.585 + 3.229X_3 + e$$

The positive coefficient further demonstrates that a 1% improvement in Youth Employment in terms of Job Assignments in Rwanda is attributed to a 3.225% improvement in Hairdressing CBT Competencies and the high t-statistic value (5.085) indicates that the effect is statistically significant at 95% confidence level.

4.3.4 *Carpentry CBT and Daily Employment Income* (Employment Income) in Rwanda. An  $R^2 = .811$ , indicates that 81.1% of variation in Youth

**Table 4.15: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 <sup>a</sup>	.811	.809	.266

**Table 4.16: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.108	1	29.108	12.145	.000 <sup>b</sup>
	Residual	6.780	96	.071		
	Total	75.888	97			

**Table 4.17: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.881	.172		3.111	.000
	Carpentry CBT	3.205	.010	.201	5.501	.000

The study sought to establish the effect of Carpentry CBT Competencies & Youth Employment (Daily

in Carpentry CBT Competencies leaving only 18.9% of the variation in Youth Employment being explained by the error-term or other variables other than Carpentry CBT Competencies. The results indicate that Carpentry CBT Competencies have statistically significant effect on Youth Employment in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Carpentry CBT Competencies and Youth Employment in terms of Daily Employment Income in Rwanda. The beta of Carpentry CBT Competencies is 3.205 with a

Employment in terms of Daily Employment Income can be explained by the variance

**Table 4.18: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 <sup>a</sup>	.649	.645	.337

**Table 4.19: ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	63.434	1	23.434	17.160	.000 <sup>b</sup>
	Residual	12.699	96	.132		
	Total	76.133	97			

**Table 4.20: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.761	.235		3.597	.000
	Masonry CBT	2.891	.026	.807	3.870	.000

statistically significant ( $p=0.000$ ) t-statistic of 5.501.

Therefore, the model equation derived was:

$$P_{DEI} = 2.881 + 3.205X_1 + e$$

The positive coefficient further demonstrates that a 1% improvement in Youth Employment in terms of Daily Employment Income in Rwanda is attributed to a 3.205% improvement in Carpentry CBT Competencies and the high t-statistic value (5.501) indicates that the effect is statistically significant at 95% confidence level.

#### 4.3.5 *Masonry CBT and Daily Employment Income*

The study sought to establish the effect of MasonryCBT Competencies & Youth Employment

(Daily

Employment

Income) in

Rwanda. An R

<sup>2</sup> = .649,

indicates that

64.9% of

variation in

Youth

Employment

in terms of

Daily Employment Income can be explained by the variance in MasonryCBT Competencies leaving only 35.1% of the variation in Youth Employment being explained by the error-term or other variables other than MasonryCBT Competencies. The results indicate that MasonryCBT Competencies have statistically significant effect on Youth Employment in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Masonry CBT Competencies & Youth Employment (Daily Employment Income) in Rwanda. The beta of MasonryCBT Competencies is 2.891 with a statistically significant ( $p=0.000$ ) t-statistic of 3.870.

Therefore, the model equation derived was:

$$P_{DEI} = 1.761 + 2.891X_2 + e$$

The positive coefficient further demonstrates that a 1% improvement in Youth Employment in terms of Daily Employment Income in Rwanda is attributed to a 2.891% improvement in Carpentry CBT Competencies and the high t-statistic value (3.870) indicates that the effect is statistically significant at 95% confidence level.

#### 4.3.6 Hairdressing CBT and Daily Employment Income

The study sought to establish the effect of Carpentry CBT Competencies on Youth Employment (Daily Employment Income) in Rwanda. An  $R^2 = .708$ ,

**Table 4.21: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 <sup>a</sup>	.708	.705	.315

**Table 4.22: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.161	1	21.161	21.797	.000 <sup>b</sup>
	Residual	8.726	96	.091		
	Total	69.888	97			

**Table 4.23: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.353	.221		4.267	.000
	Hairdressing CBT	2.838	.012	.161	4.558	.000

indicates that 70.8% of variation in Youth Employment in terms of Daily Employment Income can be explained by the variance in Carpentry CBT Competencies leaving only 29.2% of the variation in Youth Employment being explained by the error-term or other

variables other than Carpentry CBT Competencies.

The results indicate that Carpentry CBT

Competencies have statistically significant effect on Youth Employment in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Carpentry CBT Competencies and Youth Employment in terms of Daily Employment Income in Rwanda. The beta of Carpentry CBT Competencies is 2.838 with a statistically significant ( $p=0.000$ ) t-statistic of 4.558.

Therefore, the model equation derived was:

$$P_{DEI} = 1.353 + 2.838X_3 + e$$

The positive coefficient further demonstrates that a 1% improvement in Youth Employment in terms of Daily Employment Income in Rwanda is attributed to a 2.838% improvement in Carpentry CBT Competencies and the high t-statistic value (4.558) indicates that the effect is statistically significant at 95% confidence level.

### 4.3.7 CBT Competencies and Daily Employment Income

**Table 4.24: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.946 <sup>a</sup>	.896	.892	.235

**Table 4.25: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square
1	Regression	78.096	3	12.699
	Residual	2.526	94	.048
	Total	80.622	97	

**Table 4.26: Co-efficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.243	.153			.323
Carpentry CBT	2.412	.011	.401	3.513	.000
Masonry CBT	4.696	.043	.655	5.067	.000
Hairdressing CBT	6.759	.035	.723	5.323	.000

model equation derived was:  $P = 2.243 + 2.412X_1 + 4.696X_2 + 6.749X_3 + e$

The study sought to establish the effect of CBT Competencies on Youth Employment (Daily Employment Income) in Rwanda. An  $R^2 = .896$ , indicates that 89.6% of variation in Youth Employment in terms of Daily Employment Income can be explained by the variance in CBT Competencies leaving only 11.4% of the variation in Youth Employment being explained by the error-term or other variables other than CBT Competencies. The results indicate that CBT Competencies have statistically significant effect on Youth Employment in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between CBT Competencies and Youth Employment in terms of Daily Employment Income in Rwanda. Therefore, the

The positive coefficients demonstrate that a 1% improvement in the Youth Employment in terms of Daily Employment Income in Rwanda would be attributed to a 2.412% increase in improved carpentry CBT competencies, 4.696% increase in masonry CBT competencies and 6.759% increase in hairdressing CBT competencies. All the coefficients of the CBT competencies have t-statistics which were positive and relatively high value indicating that their effect is on Youth Employment in terms of Daily Employment Income in Rwanda is statistically significant at 95 % confidence level. However, the model indicates that increasing hairdressing CBT competencies ( $\beta=6.759$ ) contributes more, followed by increasing masonry CBT competencies ( $\beta=4.696$ ), and lastly increasing



**Table 4.27: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.965 <sup>a</sup>	.931	.930	.132

**Table 4.28: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.768	3	11.256	19.239	.000 <sup>b</sup>
	Residual	2.119	94	.023		
	Total	75.888	97			

**Table 4.29: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.942	.215		1.762	.000
	Carpentry CBT	2.552	.013	2.413	4.435	.000
	Masonry CBT	5.462	.035	5.434	5.823	.000
	Hairdressing CBT	6.334	.023	6.359	5.516	.000

carpentry CBT competencies ( $\beta=2.412$ ) respectively

in increasing the Youth Employment in terms of Daily Employment Income in Rwanda. The positive correlation coefficients tend to reflect the findings of [Macharia and Ngugi \(2014\)](#) in which hairdressing CBT competencies masonry CBT competencies and carpentry CBT competencies were found to have statistically significant effect on Youth Employment in the vocational training industry. Indeed, the vocational training sector need to improve CBT competencies in the youth throughout its operational structure, not only because of the youths existing

social vulnerabilities but also because competitive business environment pointing to the increasing Youth employment which would have a significant impact on the country's economic growth.

#### 4.3.8 CBT

*Competencies and Job Assignments*

The study sought to establish the effect of CBT Competencies on Youth Employment (Daily Employment Income) in Rwanda. An  $R^2 = .931$ , indicates that 93.1% of variation in Youth Employment in terms of Daily Employment Income can be explained by the variance in CBT Competencies leaving only 6.9% of the variation in Youth Employment being explained by the error-term or other variables other than CBT Competencies. The results indicate that CBT Competencies have statistically significant effect on Youth Employment

in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between CBT Competencies and Youth Employment in terms of Daily Employment Income in Rwanda. Therefore, the model equation derived was:  $P = 2.942 + 2.552X_1 + 5.462X_2 + 6.334X_3 + e$

The positive coefficients demonstrate that a 1% improvement in the Youth Employment in terms of Daily Employment Income in Rwanda would be attributed to a 2.552% increase in improved carpentry CBT competencies, 5.462% increase in masonry CBT competencies and 6.334% increase in hairdressing CBT competencies. All the coefficients of the CBT competencies have t-statistics which were positive and relatively high value indicating that their effect is on Youth Employment in terms of Daily Employment Income in Rwanda is statistically significant at 95 % confidence level. However, the model indicates that increasing hairdressing CBT competencies ( $\beta=6.334$ ) contributes more, followed by increasing masonry CBT competencies ( $\beta=5.462$ ), and lastly increasing carpentry CBT competencies ( $\beta=2.552$ ) respectively in increasing the Youth Employment in terms of Daily

Employment Income in Rwanda. The positive correlation coefficients tend to reflect the findings of [Macharia and Ngugi \(2014\)](#) in which hairdressing CBT competencies masonry CBT competencies and carpentry CBT competencies were found to have statistically significant effect on Youth Employment in the vocational training industry. Indeed, the vocational training sector need to improve CBT competencies in the youth throughout its operational structure, not only because of the youths existing social vulnerabilities but also because competitive business environment pointing to the increasing Youth employment which would have a significant impact on the country's economic growth.

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### Summary of Findings

The study sought to establish the effect of CBT Competencies on Youth Employment in Rwanda. Regarding socio-demographic characteristics of the respondents, 71% were males while 29% were females indicating that the vocational CBT industry is dominated by males. Majority of the respondents 50% were aged 19 to 24 years, followed by 28% of the respondents being between 14 to 18 years while 16% of the respondents were between the ages of 25 to 29 years, and 6% were 30 years and above. A total 78% of the respondents were within 14– 24 years. This implies that the research finding is reliable since the findings shows that the majority of the respondents were mature in thinking. 25% of the respondents had not attended secondary education at all with 35% having secondary certificate qualification. Also, another 17% had some certificate level qualification. Only 13% of the respondents were having diploma qualification while 10% had undergraduate qualification. However, none of the respondents had a post-graduate qualification. Lastly, most of the

respondents (80%) had less than two years of length of job search. This was followed by 16% of the respondents having between 2-5 years' length of job search and 4% having 6-8 years length of job search. A cumulative 96% of the respondents had between less than 1 – 5 years' length of job search indicating that the research findings were reliable since majority of the respondents had got enough length of job search in the vocational CBT sector.

Regression analysis was conducted to investigate the statistical significant effect of CBT Competencies on Youth Employment in Rwanda.

### Objective One

The study sought to establish the effect of Carpentry CBT Competencies & Youth Employment (Job Assignments) in Rwanda. The results indicate that Carpentry CBT Competencies have statistically significant effect on Youth Employment in terms of Job Assignments in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Carpentry CBT Competencies and Youth Employment in terms of Job Assignments in Rwanda with the following model equation:  $P_{JA} = 1.394 + 0.329X_1 + e$

The study then sought to establish the effect of Carpentry CBT Competencies & Youth Employment (Daily Employment Income) in Rwanda. The results indicate that Carpentry CBT Competencies have statistically significant effect on Youth Employment in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Carpentry CBT Competencies and Youth Employment in terms of Daily Employment Income in Rwanda. The model equation derived was:  $P_{DEI} = 2.88I + 3.205X_1 + e$

### Objective Two

The study sought to establish the effect of Masonry CBT Competencies & Youth Employment (Job Assignments) in Rwanda. The results indicate that Masonry CBT Competencies have statistically significant effect on Youth Employment in terms of Job Assignments in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Masonry CBT Competencies and Youth Employment in terms of Job Assignments in Rwanda. The model equation derived was:  $P_{JA} = 2.14I + 2.432X_2 + e$

The study then sought to establish the effect of

Masonry CBT Competencies & Youth Employment (Daily Employment Income) in Rwanda. The results indicate that Masonry CBT Competencies have statistically significant effect on Youth Employment in terms of Daily Employment Income in Rwanda. The model equation derived was:  $P_{DEI} = 1.76I + 2.891X_2 + e$

### Objective Three

The study sought to establish the effect of Hairdressing CBT Competencies & Youth Employment (Job Assignments) in Rwanda. The results indicate that Hairdressing CBT Competencies have statistically significant effect on Youth Employment in terms of Job Assignments in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Hairdressing CBT Competencies and Youth Employment in terms of Job Assignments in Rwanda. Therefore, the model equation derived was:  $P_{JA} = 1.585 + 3.229X_3 + e$

The study then sought to establish the effect of Carpentry CBT Competencies on Youth Employment (Daily Employment Income) in Rwanda. The results indicate that Carpentry CBT Competencies have statistically significant effect on Youth

Employment in terms of Daily Employment Income in Rwanda. The positive coefficient of determination indicates that there is positive correlation between Carpentry CBT Competencies and Youth Employment in terms of Daily Employment Income in Rwanda. Therefore, the model equation derived was:

$$P_{DEI} = 1.353 + 2.838X_3 + e$$

#### *Conclusions of the study*

Considering the significant role that vocational CBT sector plays in Rwanda's economic growth, the study sought to establish the effect of CBT Competencies on Youth Employment in Rwanda. The study therefore concludes that CBT Competencies have statistically significant contribution on Youth Employment in Rwanda. It also concludes that improving the various CBT Competencies would eventually increase Youth Employment in Rwanda in the order of hairdressing CBT Competencies, masonry CBT Competencies and lastly carpentry in Rwanda.

#### *Recommendation of the study*

The study sought to establish the effect of CBT Competencies on Youth Employment in Rwanda. Since there was a positive and significant relationship between CBT Competencies on Youth Employment, vocational CBT players should ensure that the extent

of integration of the three CBT Competencies is enhanced.

#### *5.5 Suggestions for further Studies*

The study suggests that future research should be conducted using a longitudinal design like panel design or time series instead of cross-sectional survey to bring a more dynamic result. The study also suggests future research should be expanded in scope to cover other developing countries for comparative analysis and hence more conclusive results in multi-dimensional and cross-cultural setups in developing countries.

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