

AN ASSESSMENT OF TECHNICAL, VOCATIONAL, EDUCATION AND TRAINING ON RWANDA LABOR MARKET: A CASE OF NPD LTD

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Abstract: This study was conducted to assess Technical, Vocational, Education and training on Rwanda labor market with NPD Ltd as the case study. The researcher focused on three specific objectives named: to identify the importance of Technical Vocational Education and Training (TVET) in job creation on Rwanda labor market, to find out the contribution of Technical Vocational Education and Training (TVET) to produce the workforce on Rwanda labor market and to found out the impact of workplace learning of TVET on Rwanda labor market. The study population was 639 participants and sample size equal to 87, researcher used Probability random sampling technique and Adanza's (1995) formula of sample size and the researcher used questionnaire, interview guide and documentation review to collect data of this study and the researcher used both qualitative and quantitative methods of data analysis and also Microsoft Excel was used for tables and figure we recommended that in order to improve TVET in Rwanda, Government should strengthen TVET policies, increase the budget dedicated to TVET and Equip training centers with modern and updated tools and equipment, also MINEDUC and TVET institutions should increase awareness campaigns to attend TVET Schools and show the importance of TVET Schools in terms of job creation, furthermore, these institutions should work closely with private sector and industries and increase training both pedagogical and technical for TVET trainers.

Keywords: Technical Vocational Education and Training (TVET), Rwanda labor market, TVET Schools, job creation, furthermore, TVET trainers.

1. INTRODUCTION

Background of the study

According to Quisumbing (2005), mentioned that in United States of America and Europe, Technical and vocational education and training (TVET) is the systematic and orderly transmission of knowledge, skills and values to develop a workforce that is able to enhance productivity and sustain competitiveness in the global economy. It encompasses the ability to accelerate economic growth, provide marketable labor supply, minimize unemployment and underemployment, infuse technical knowledge, and reduce poverty.

For many countries in the Asia Pacific region, TVET is not merely an option, but a necessity. Education alone is democracy but with technology, it becomes power. Balogh as cited by Tilak (1994) stated that: "As a purposive factor for rural development, prosperity and progress, education must be technical, v Boyd vocational and democratic." It goes without saying that TVET is both democracy and power. It is democracy because it liberates the learner or the trainee from the bondage of ignorance and illiteracy. It is considered power because it brings technological superiority thereby breeding competitiveness and productivity to a country.

Balogh as cited by Tilak (1994) continued saying that TVET aims to build a highly efficient human resource highway which allows technology and people to circulate and move around the Asia Pacific region without significant hindrances or delays.

According to Apagu & Andural (2007), Nigeria as a nation currently has many social and economic problems to handle in the twenty-first (21st) century. Most Nigerians are just recovering from continuing case of negative attitude towards TVE. Nigeria is similarly just awakening from her long sleep of neglect of these aspects of education in her educational system. The nation and her citizens are in the twenty- first century questioning the quantity and quality of these aspects of education in the nations system of education and among Nigerians, particularly among the youths. A brief look at the National Policy on Education (NPE) aims of TVE amongst others shows the rationale for government interest and support to the skill-oriented education.

In addition to TVE providing skilled manpower and reducing youth unemployment, it has contributed significantly to economic development by reducing poverty through access to various income areas, supporting foreign investment and largely transforming attitudes of people to TVE (Adebambo, 2007).

Technical and vocational training in Kenya offers programs that target those students who do not progress to higher levels of education. The aim is to provide the students with skills and competencies for engagement in wage employment or self-employment. The critical role of vocational training in furnishing skills that are required to improve productivity, raise income levels and improve equitable access to employment opportunities has been widely recognized (Onsumu et al 2009).

The Kenyan Government, faced with a growing population combined with unemployment and unmet skills demands, has chosen to expand the country's education and training system. By 2018, the number of public educational institutions had increased to a total of 94,399, a 4.5 per cent increase on 2017. The number of accredited bodies providing TVET grew by 16.7 per cent to 2,289 between 2017 and 2018, enrolment has risen at all educational levels, except for universities, with formal TVET accounting for the largest increase of 32.3 per cent between 2017 and 2018 (Mwangi, 2016).

Prime Minister Ngirente (CAPA,2019), pointed out that the country's target in the National Strategy for Transformation (2017-2024) is to increase the number of students attending TVET schools to 60% by 2024 from 31.1% in 2017 also said that TVET is one of the most powerful tools to fight poverty. It does not only provide skills to gain paid employment but also to promote and support creativity, innovation and entrepreneurship to develop the ability to create jobs and employment opportunities.

The relative share of each ISCED level from 2 levels to 4, and within each level, the percentage of students who are enrolled in vocational education. It shows that in 2013 there were 289.3 million pupils enrolled in ISCED level 2 lower secondary education. Of those, only 1.3% were enrolled in vocational lower secondary education. This is consistent with UNESCO Institute for Statistics' (2007) finding in its initial statistical study of participation in formal technical and vocational education and training programs worldwide. Relatively high proportions of vocational lower secondary enrolments were found for Latin America and Caribbean countries (5.2%), Sub- Saharan Africa (3.1%) and Middle East and North Africa (2.3%).

Some 231.1 million pupils were enrolled in ISCED level 3 upper secondary education. Of those 23.7% were enrolled in upper secondary vocational programs. The regions with high proportions of vocational enrolments in lower secondary education (Latin America and Caribbean, Sub- Saharan Africa, and Middle East and North Africa) have average or lower proportions of upper secondary vocational enrolments. Conversely, particularly high proportions of vocational upper secondary education enrolments were reported for Europe and Central Asia (47.3%) and East Asia and Pacific (41.3%). These regions had about average or lower proportions of vocational enrolments in lower secondary education. This suggests that at least in these regions there may be some substitution between vocational lower and upper secondary programs. Only 8.3 million students were reported in ISCED level 4 post-secondary non-tertiary education. However, 89.2% of these students were enrolled in vocational programs. Post-secondary non- tertiary education is thus essentially a vocational level of education (UNESCO Institute for Statistics, 2007).

The number of males is higher than that female, the ESSP target of gender parity in enrolment in TVET is 0.69, the ESSP target of 0.74 in 2019 was not achieved. This indicator shows that more efforts should be taken to increase the female enrolment in TVET. Table 1 shows an increase of 3,769 students enrolled in Level 1-5 (from 79,388 to 83,157); this increase is partly due to 4,261 students (3,796 Male and 465 Female) enrolled in Rwanda Correctional Services and the mindset change of Rwandan students towards vocations-oriented fields. The Government should encourage the owners of

the schools (Private, Government Aided and Public) to expand and renovate training facilities to the required standards and apply for reaccreditation (MINEDUC statistics Report, 2019).

Statement of the problem

The report by MINEDUC (2008) states that “Rwanda suffers from severe shortages in terms of skilled human capital especially in technical and vocational professions; skilled human resources are still imported from mainly regional countries to solve this problem related to professional technicians and skills shortage due to the poor education and curriculum systems that resulted to the lack of skilled workers and professional technicians. From that background, the Government of Rwanda has embarked on investing in TVETs and alternative institutions providing hands-on skills required for the job market as it is relying on its human resources who require innovative skills. Moreover, due to the lack of studies on Technical, Vocational, Education and Training on Rwanda labor market, it encouraged the researcher to carry out the current study to assess the contribution, importance and workplace learning of TVET to Rwanda labor market.

Specific objectives

- To identify the importance of Technical Vocational Education and Training (TVET) in job creation on Rwanda labor market,
- To find out the contribution of Technical Vocational Education and Training (TVET) to produce the workforce on Rwanda labor market,
- To find out the impact of workplace learning of TVET on Rwanda labor market.

1 Research questions

- What is the importance of Technical Vocational Education and Training (TVET) in job creation on Rwanda labor market?
- What is the contribution of Technical Vocational Education and Training (TVET) to produce the workforce on Rwanda labor market?
- What are the impacts of workplace learning of TVET on Rwanda labor market?

2. LITERATURE REVIEW

Theoretical review

Performance and Human Capital Development Theory

The theory of performance views both organizations and individuals as a journey that goes through processes. According to Caine et al, (2005), the process of performance comprises of context, skills levels, knowledge, identity, fixed factors and personal factors. Human beings and organizations can produce extra ordinary performance based on their capacity levels. Since worthy accomplishments are produced from high-level performances, a theory of performance is useful in many learning contexts for employees and the organization.

The theories of Performance and Human Capital Development are used in this study to support labor force who are already on the workplace to increase the knowledge, which will fit the future labor market requirements.

The neoclassical employment theory

Neoclassical employment theories refer to the model of perfect competition on the labor market, developed by A.C. Pigou, which is based on certain assumptions. Firstly, employers and employees have almost full information on wages and employment possibilities available on the market, thus the labor market is thoroughly transparent. Secondly, both employers and employees are ‘rational’ in the economic sense: employers strive at maximum profit and employers aim at maximum satisfaction of real wages. Thirdly, every employer and employee represents such a small portion of the overall labor demand that their individual decisions have no influence on wages. Fourthly, there are no obstacles to the labor force mobility and other production factors. Fifthly, employers and employees act individually, without agreement with other employees or employers, while making pay or employment decisions. Sixthly, labor on particular markets is uniform and changeable (movable in the economic sense) (Kryńska 2000).

The neoclassical theory, wages are considered to play the key role in the labour market that is treated as homogeneous,

and where the allocation of labour is regulated by a price mechanism. Labour supply and labour demand are determined by the rates of real wages. Workers' earnings depend on the relation between the supply and demand for certain types of workers. Labour demand is determined by the tendency of the real wage to reach the level of marginal productivity of labour (Kryńska 2000).

2Empirical review

The importance of Technical Vocational Education and Training (TVET) in job creation on Rwanda labor market

King and Palmer (2008), in their study argued that skills development and TVET as the means to gaining employability in the job market or self-employment and boosting productivity. TVET or VET shares common significance of promoting livelihoods, works and self-employment.

Palmer (2009) has put forward the need of skill generation through TVET to endorse self-employment in Ghana as the nation attempts to coordinate the agencies concerned with skill training and venturing self-employment and concentrates in the formal sector to channelize the majority occurring economic activities for growth in private sector.

Broussar and Tekleselassie (2012) states TVET in Ethiopia has helped promotion of self-employment through its course design to match the industry needs and trainees' needs to promote the graduates to venture their own micro and small Enterprises which largely represents informal economic sector that has been identified by the Ethiopian government as important sources of employment and job creation and TVET has helped address the major economic sector of the nation.

The contribution of Technical Vocational Education and Training (TVET) to produce the workforce on Rwanda labor market

Karki (2011) argues that both soft skill and hard skill development hold a significantly positive nexus with employment. King and Palmer (2008) also identify positive relationship of skill development and productive workforce. Productive and skilled workforce has access to labour market for decent jobs which then has a chain effect on economic growth. Properly functional TVET makes the human resources skillful and skill empowerment of the labour force therefore makes them productive.

Ryan (2001) discussed that TVET tends to result in faster school-to-work transitions than general education. Studies comparing employment rates of TVET versus general education graduates at upper secondary school level in the European Union, at upper secondary and tertiary levels in the USA, UK and France, and between skilled vocational versus university graduates in Australia, confirm this finding.

The impact of workplace learning of TVET on Rwanda labor market

Quintini and Manfredi (2009) stated that the countries with the quickest education-to-employment transition rates among secondary TVET graduates are those with embedded dual apprenticeship systems, where school-based (vocational) education is combined with structured on- the-job training.

According to Johanson, Richard, and Arvil (2004) stated that on job training is thus an important channel through which worker's upgrade skills and remain competitive in the labor market, and firms are able to adopt new technologies and innovate. In fact, continuous training for new technologies can be best accomplished by workplace training rather than by more general-purpose education if workers have a sufficient general foundation to be able to learn new skills.

Research Gap

Technical Vocational Education and Training (TVET) refer to a deliberate intervention to bring about learning which would make people more relevant and productive in designated areas. In order to meet the demand of the labor market for skilled workers and to produce individuals that will be required with saleable skills for employment and self-reliant. In the TVET Policy 2008 published by the Rwandan Ministry of Education (MINEDUC, 2008), the main problem of the sector is the fact that Rwanda suffers from serious deficiencies in terms of trained human resources for the technical professions. The impact of the 1994 genocide, which resulted in the massive loss of an educated and skilled workforce, further compounded the problem. This poses a great threat to Rwanda in reaching its Visions targets. Although the Education Sector Policy and the National Science, Technology and Innovation Policy clearly indicate the Government's commitment to develop and improve TVET, the country is still in direct need of skilled workers and technicians.

The TVET lacks effectiveness and relevance to the reality of the workplace. Even in those occupational fields that show high demand for skilled workforce. Besides, labor force demand exceeded the labor supply on Rwanda labor market.

Conceptual framework

A conceptual framework represents the researcher's synthesis of literature on how to explain a phenomenon. It maps out the actions required in the course of the study given his previous knowledge of other researchers' point of view and his observations on the subject of research. In other words, the conceptual framework is the researcher's understanding of how the particular variables in his study connect with each other. Thus, it identifies the variables required in the research investigation. It is the researcher's "map" in pursuing the investigation. According to McGaghie et al. (2001), the conceptual framework "sets the stage" for the presentation of the particular research question that drives the investigation being reported based on the problem statement. The problem statement of a thesis presents the context and the issues that caused the researcher to conduct the study.

For the purposes of this research, the conceptual framework illustrated how the Technical Vocational Education and Training (TVET) as independent variable influence dependent variable Rwanda labor market and the intervening variables (See the Figure 1). The variables, which emanate from the specific objectives and research questions to be tested, are clearly articulated in this conceptual framework.

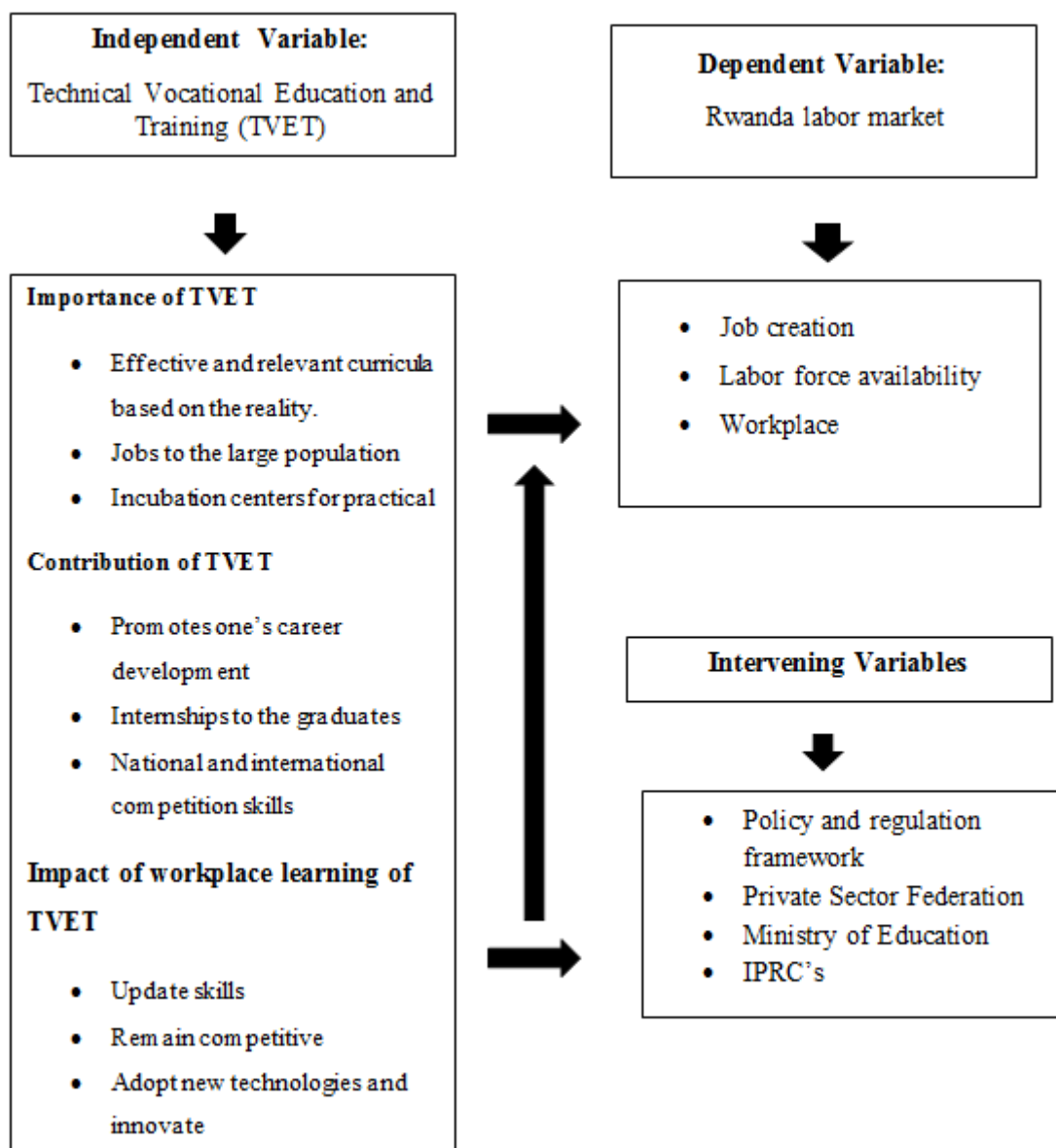


Figure 1: Conceptual framework

Source: Researcher completion, 2020

3. RESEARCH METHODOLOGY

Research Design

The design of research is a combination set of methods (or methodology) that researcher has chosen for the empirical part of your study (Bakkabuldi, 2004). The study was made using of a descriptive research design with correlation research design by using survey, this research design was appropriate for this study because this design was best used in studies that are set to determine the status quo of a given situation.

Study Population

The population of the research, the entire group of people that, the researcher wished to investigate (Sekaran 2003). It was comprised the staff of Nyarutarama Property Developers Ltd (NPD Ltd) with a working force of 639.

Sample size and Sampling technique

Sampling technique

The probability random sampling technique was used. This method was used because it is flexible and facilitates easy and quick collection of data. Based on the population size, the sample size of 87 was drawn to undertake the study.

Sample Size

The researcher was selected the sample size from the various employee categories that gives a true reflection of the research findings and fair representative of the respondent views.

The researcher used Adanza (1995) formula of sample size which was $n = \frac{N}{1+N(e)^2}$ where, **n** means **sample size**, **N** means **population**, **e** means **sampling error** (0.1). Therefore, sample size equals $\frac{N}{1+N(e)^2} = \frac{639}{1+639(0.1)^2} = \frac{639}{1+639(0.1)(0.1)} = \frac{639}{1+63.9} = \frac{639}{73.9} = 87$

Questionnaire

According to Richard and Margaret (1990), a questionnaire is an instrument for data collection consisting of a set of questions and which is sent out by mail in the hope that the recipient filled it and returned it.

The research was carried out with the help of a structured questionnaire, which contained structured questions. It was made by close and open-ended questions and divided into two sections. The questionnaire was been adjusted to fit the purpose of this research and it was administered to the staff in order to provide their opinions on this dissertation.

Interview Guide

Kothari (2004) interview is the method of collect data, which involve presentation of oral- verbal stimuli and reply in terms of oral verbal responses. Furthermore, Kothari argued that this technique tries to get the information from the respondents who were expected to have more required data and who may be having limited time, regarding the relevant respondents, this method was used to senior management and other staff who had a limited time to answer the questionnaire.

4. ANALYSIS AND DISCUSSIONS OF DATA FINDINGS

In this part, the researcher analyses and discusses the data findings especially the three objectives entitled to identify the importance of Technical Vocational Education and Training (TVET) in job creation, to find out the contribution of Technical Vocational Education and Training (TVET) to produce the workforce to the labor market and to find out challenges faced by Technical Vocational Education and Training (TVET) institutions to deliver relevant skills to fit in the labor market.

The importance of TVET in job creation on Rwanda labor market

This section presents the views given by the respondents about the importance of TVET in job creation on Rwanda labor market. Effective and relevant curricula based on the reality, provides jobs to the large population and incubation centers for practical.

Views of respondents about effective and relevant curricula based on the reality

Respondents were asked to provide information related to the importance of TVET in job creation on Rwanda labor market. Respondents gave their views by agreeing and disagreeing about the effective and relevant curricula based on the reality .

Views of respondents about TVET provides jobs to the large population

This section shows the views of respondents on TVET provides jobs to the large population. The respondents gave information by agreeing, disagreeing, neutral, strongly agreeing and strongly disagreeing.

Views of respondents about incubation centers for practical

In this study, the researcher wanted to know about the TVET incubation centers for practical as one of indicator of the importance of TVET in job creation on Rwanda labor market. To get information from this section, the researcher asked questions to the respondents in relation to this indicator. Therefore, as this section presented the views given by the respondents about the importance of TVET in job creation on Rwanda labor market and based on the findings showed that it has the importance on job creation on Rwanda labor market.

The contribution of TVET to produce the workforce to the labor market

This section presents the views given by the respondents about the contribution of TVET to produce the workforce to the labor market. Promotes one's career development, internships to the graduates and national and international competition skills.

Views of respondents about TVET promotes one's career development

This section shows the views of respondents on TVET promotes one's career development. The respondents gave information by agreeing, disagreeing, neutral, strongly agreeing and strongly disagreeing. It has been shown that 61 respondents representing 70% had strongly agreed and 26 respondents representing 30% had agreed with that statement, no respondent disagreed or strongly disagreed with TVET promotes one's career development as indicator of the contribution of TVET to produce the workforce to the labor market.

Views of respondents about internships to the graduates

Respondents were asked to provide information related to the contribution of TVET to produce the workforce to the labor market. Respondents gave their views by agreeing and disagreeing about the internships to the graduates. It showed that 69 respondents representing 79% had strongly agreed and 18 respondents representing 21% had agreed with the statement, no respondent disagreed or strongly disagreed with internships to the graduates as indicator of the contribution of TVET to produce the workforce to the labor market.

Views of respondents about national and international competition skills

Respondents were asked to provide information related to the contribution of TVET to produce the workforce to the labor market. Respondents gave their views by agreeing and disagreeing about the national and international competition skills. It showed that 67 respondents representing 77% were strongly agreed and 20 respondents representing 23% agreed that national and international competition skills had contribution to produce the workforce to the labor market as the part of TVET.

Therefore, as this section presented the views given by the respondents about the contribution of TVET to produce the workforce to the labor market and based on the findings showed that TVET has the contribution to produce the workforce to the labor market as many of respondents strongly agreed and agreed with the statement.

5. CONCLUSION

This study assessed Technical, Vocational, Education and Training on Rwanda labor market, then the objectives were as follow: to identify the importance of Technical Vocational Education and Training (TVET) in job creation, to find out the contribution of Technical Vocational Education and Training (TVET) to produce the workforce to the labor market, to found out the impact of workplace learning of TVET on Rwanda labor market. Based on the population size, the sample size of 87 was drawn to undertake the study. The data collection was obtained through questionnaires and interview guide administered to selected respondents.

Data was analyzed using Microsoft excel. However, the analysis and interpretation was based on the findings respondents in the chapter four and those findings were presented in the form of tables and figure in order to give them the meaning, From the major findings mentioned in the chapter five, the findings showed in lastly, findings revealed that workplace learning of TVET has the impact on Rwanda labor market.

6. RECOMMENDATIONS

In order to improve TVET in Rwanda, Government should strengthen TVET policies, increase the budget dedicated to TVET and Equip training centers with modern and updated tools and equipment.

MINEDUC and TVET institutions should Increase awareness campaigns to attend TVET Schools and show the importance of TVET Schools in terms of job creation.

Furthermore, these institutions should work closely with private sector, industries, and increase training both pedagogical and technical for TVET trainers.

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