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Nexus between Public Private Partnership (PPP) and Technical and Vocational Education and Training (TVET) Institutions on Practical Training; Case of TVET Institutions in the North Rift and Western Regions, Kenya

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Abstract: Recently, TVET has become a subject for discussion at summits, academic conferences and at policy circles in most developing countries including Kenya. TVET institutions facilitate the acquisition of the practical and applied skills as well as basic scientific knowledge. However, many research findings have revealed that TVET has been limited on practical skill acquisition in most countries. On the other hand, the partnership between TVET institutions and private sectors would greatly encourage and augment a partnership that will result to graduate employability and practical skill acquisition. Therefore, this study sought to establish the effect of PPP- TVET institutions collaboration on practical training. Multiple case-study design was adopted for the study. Purposive and snowball sampling techniques were applied to select TVET and enterprise officials respectively. Questionnaires and interview guides were used in data collection. Data collected was analyzed using Multiple Attribute Utility Theory, (MAUT) and results presented in tabular and graphical forms. The findings indicate that the contribution of enterprise in establishment of workshops and laboratories, donation of equipment and equipment sharing was quite low (below 30%). However, the contribution of enterprise in industrial training and internship stood was excellent (100 %). Majority of the respondents believed that enterprise contribution is considerable only in the areas of industrial training and internships. Therefore, provision should be made to involve experts from local industries as guest faculty to conduct practical classes.

Keywords: Public Private Partnership, TVET Institutions, Practical Training, Enterprises.

INTRODUCTION

The demand of education for economic purposes due to the pressure of technological progress and modernization has been constantly on the rise in most countries during the 21st century. New skills are needed and educational institutions are required to meet the need by providing not only the minimum of schooling or vocational training, but also training for scientists, innovators and high level specialists [1]. The concept of Vocational and Technical Education is rooted on preparation of students for acquisition of necessary skills, knowledge and attitude to earn employment as expert assistant to professional in any field of Technology and Engineering [2]. Partnership with credible and group accepted innovative approaches to funding and mobilization has the potentiality of increasing the overall access to essential services based on Public Private Partnership (PPP) structure already in place [1]. The perception of PPP in TVET recognizes the existence of alternative options for providing educational facility and services besides public finance and public delivery.

Partnership with the industries and the education institutions are the major rising concern in many developing countries like Kenya. Kenya has a vast network of technical and vocational institutions providing a wide range of programmes for all categories of school leavers. There are two polytechnic university colleges, two national polytechnics and one technical teachers' college. Studies have clearly shown that TVET institutions facilitate the acquisition of the practical and applied skills as well as basic scientific knowledge [3]. It is therefore a planned program of courses and learning experiences that begin with exploration of career options, basic academic and life skills, and enables achievement of high academic standards, leadership, preparation for industry-defined work, and advanced and continuing education [4]. New skills are needed and educational institutions are required to meet the need by providing not only the

minimum of schooling or vocational training, but also training for scientists, innovators and high level specialists [5].

In Kenya, there is a marked expansion of vocational and technical training institutions. However, the system has some marked shortcomings. For example, there is no feedback from the employers to training institutions leading to a supply driven training skewed in favour of technologists. Therefore, technical graduates lack hands on experience and have poor work attitudes and are inflexible to change [6].

According to African Union [7], the main significant hallmark of TVET is its alignment towards the world of work and the emphasis of the curriculum on practical skills acquisition. Therefore, TVET programs are well placed to train the skilled and entrepreneurial workforce for the economy. Recently, TVET has become a subject for discussion at summits, academic conferences and at policy circles in other developing countries including Kenya. Unfortunately, many research findings have revealed that TVET has been limited on employability and national development in in most countries [8]. On the other hand, the synergy between TVET institutions and enterprises would greatly stimulate and enhance a partnership that will result to graduate employability and general practical skill acquisition. Therefore, this study sought to establish the effect of PPP- TVET institutions collaboration on practical training.

RESEARCH METHODOLOGY

Research Design

According to Creswell [9], research design is carried out at a just one point in time and popularly used in education. The study adopted multiple case-study method was used in this research. The design enables the researcher to investigate differences inside and between cases with the aim of replicating finding across cases. As comparisons will be depicted, it is necessary for the cases to be selected cautiously so the researcher will be able to foresee similar results across cases, or predict contrasting results based on theory [10].

Study Area

The study was carried out in twelve (12) selected TVET institutions spread within the Rift Valley and Western regions in Kenya. The western Kenya region comprises of former western and Nyanza provinces. The research was carried out in 9 (nine) counties spread within the Two TVET administrative regions. The nine counties were Migori, Kisii, Kericho, Nandi, Uasin Gishu, Elgeiyo Markwet, Trans Nzoia, Bungoma and Kakamega.

Study population

Population is basically a large group that bears the characteristics of the research issue. The current number of registered TVET institutions is 540 according to data obtained from TVET website. The population involved in this study were staff members of TVET institutions and selected industry partners.

Sample size and Sampling techniques

In considering the TVET institutions for the study, a sample comprising of twelve TVET institutions (representing 31% of the entire population) was selected for the study. These institutions were Bureti Technical college in Kericho county, Keroka Technical college in Kisii County, Kisumu Polytechnic in Kisumu County, Rongo Institute of Applied Technology in Kisumu, Ol'Lessos Technical Training college in Nandi county, Rift valley institute of science and Technology in Nakuru County, Kenya industrial training Institute Nakuru County, Rift Valley technical training institute in Uasin Gishu County, and Kitale Technical in Trans Nzoia County.The selected institutions were considered representative of the TVET system in Kenya. Purposive sampling was used in selecting participants from TVET institutions while **s**nowballing was considered suitable method of sampling Enterprises.

Research instruments

This study utilized the following research instruments; TVET Trainers questionnaires, Enterprise questionnaire and interview schedule. Creswell [11] notes that more than one instrument should be used to enhance triangulation and hence validity and reliability of the study.

Questionnaires

Questionnaires were used to obtained information from TVET trainers' and enterprise officials. Various authors have recommended questionnaire as a very effective instrument that has the ability to collect large amount of information in a reasonably quick span of time [12].

Interview Guide

An interview guide is a set of questions that an interviewer asks when interviewing respondents and assists in ensuring standardization of the interview situation. The guide enabled interviewers to ask the same questions in a consistent manner. Order to obtain more complete and comprehensive data the guide was designed to have both structured and open-ended questions. This study used the interview guide to obtain information that was considered relevant for TVET enterprise partnerships. The main purpose of using interview schedule and focus group discussion guide was to ensure that sufficient data has been collected as noted by Bryman [13] and Orodho [12].

Validity and Reliability of Instruments

Validity refers to the extent to which an instrument can measure what it ought to measure. The validity of the research instrument was achieved through the expert judgment of the research supervisor

who critically went through it to ensure that the questions contained were clear and precise and present the phenomena under study. On the other hand, Orodho [14] defines Reliability as the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable.

The researcher validated the data collection instruments (i.e. trainers' questionnaires, enterprise questionnaires and interview guide) by subjecting it to a rigorous scrutiny by two senior research experts and professors of curriculum instruction in Moi University. The instruments were also validated by the two supervisors who are experts in TVET.

To determine the reliability of the instrument, pilot study was designed to test logistics and gather information prior to a larger study. Trainers and heads of sections and departments from selected TVET institution and Enterprise in Uasin Gishu County were used as in pilot testing. The data obtained during the pilot test were subjected to statistical analysis to determine their reliability. The study considered all methods of estimating the reliability discussed above but adopted only on Cronbach's alpha A measure of internal consistency.

Data Analysis

Multiple Attribute Utility Theory, (MAUT) formed the basis for data analysis in this research. MAUT was used to rescale a numerical value on some partnership attributes of interest on a scale of 1 to 10, with 1 representing the worst preference and 10 the best. Qualitative data generated was subjected to content analysis while quantitative variables were analyzed within the context of the MAUT framework. Analyzed results were presented in tabular and graphical forms.

FINDINGS AND DISCUSSION

Demographic information about TVET Institutions

Figure-1 below indicates the categorization in TVET institutions under the study. The study covered both layers of TVET system in the area under study from national polytechnics to the newly established vocational training colleges

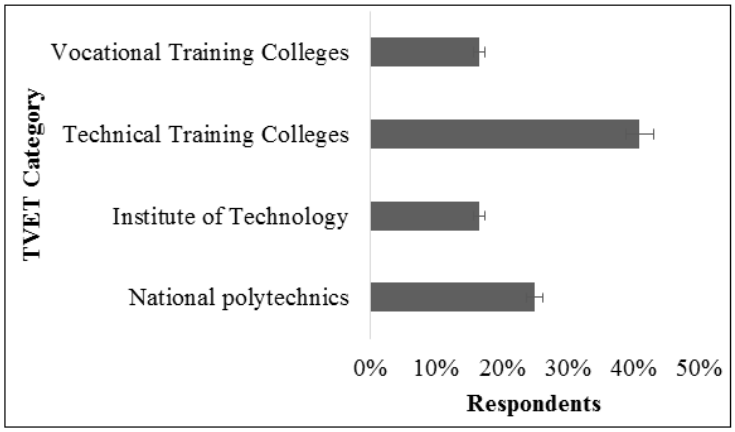

Fig-1: Summary of TVET Institutions Categories

Nature of TVET Partnership

Results on the nature of TVET partnerships in the study area are summarized in Table-1. Findings revealed that partnerships with central government agencies and donors were dominant accounting for 52.3%. Private enterprise partnerships with TVET was ranked second with a frequency of 15 out of 65 representing 23.1% while county government was third with 18.5%. Tripartite partnerships between TVET institutions Local communities and government agencies or donors had a frequency of 3 representing 4.6% while partnership with Jua kali sector had a frequency of 1 representing 1.5%.

Table-1: Nature of TVET Partnership

Nature of TVET Partnership	Frequency	Percentage
Partnerships with local private enterprises	15	23.1%
Partnership with County governments	12	18.5%
Partnerships with central government agencies and international donors through (MOEST)	34	52.3%
Partnership with Jua kali enterprises	1	1.5%
Tripartite partnerships involving TVET institutions and local communities or jua kali	3	4.6%
Total	**65**	**100**

As noted above, the main type of partnership form that exists across all TVET institutions is the partnership with central government through MOEST at 52.3 % prevalence. In most cases this partnership is in capital investment in construction of tuition blocks laboratories and workshops and supply of equipment. Appendix VI is a summary of the key infrastructural projects and equipment delivered by central government in collaboration with donors. Findings obtained in the presents study reported that various types of partnership with the selected TVET institutions existed. This finding could be attributed to the fact that the most common Public- Private Partnerships in the literature on education are of different models [15].

The central government input as observed in the finding of this study stood at 52.3%. This shows that the central government is the major partner in TVET training in Kenya courtesy of an established tradition that the responsibility of training belongs to the government. According to LaRocque [15], partnership involves a government agency entering into an agreement with a private provider to procure a service, or a bundle of education services, in exchange for regular payments. In addition, Patrinos *et al.*, [16] argued that a government procures education or education-related services of a defined quantity and quality at an agreed price from a specific provider".

Contribution of Enterprise Partners in Practical Training

In order to assess the performance of enterprises partnerships on practical training, respondents were asked to respond to structured questions related to practical training in TVET institutions. The structured questions were grouped into four sub variables of practical training support systems namely; Construction of workshops and laboratories, donations of relevant training Equipment, sharing of equipment with enterprises, industrial training & internship and industrial visits. The contribution by enterprise was divided into two i.e. purely private enterprises and enterprises partly owned by the state. Descriptive analysis technique in form of counts, frequencies and percentages was used to illustrate partnership activities in practical training. Table-2 and 3 give a summary of the findings obtained from the study.

Table-2: Level of Partnership in Practical Training by State Related Agencies

Contribution by TVET partners In Practical training support system	(State related agencies)	
	Frequency	**Percentage**
Laboratories/Workshop construction	12	100%
Donation of training equipment	12	100%
Contributions in industrial training internships, and industrial visits	3	25%
Contribution in equipment sharing	1	8%

As shown in Table-2, the contribution of state owned enterprises in sharing of equipment was represented by a frequency of 1(8%) of institutions under study. The contribution in establishment of workshops and laboratories and donation of equipment had frequencies of 12 representing 100 %. The contribution of enterprise towards industrial training, internship and industrial visits had a frequency of 3 representing 25 %. Majority of the respondents believes that government owned or state related enterprises are the major contributors in all aspects of TVET training.

Findings in Table-3 give a gloomy picture concerning the contribution of private enterprises in establishment of workshops and laboratories. This area was completely nonexistent at 0 frequency representing 0%. The donation of equipment had a frequency of 2 representing 16.6 % of institutions under study while equipment sharing had a frequency of 1 representing 8 %. The contribution of enterprise towards industrial training, internship and industrial visits had the highest frequency of 12 reprinting 100 % of institutions under study. Majority of the respondents believes that private enterprise contribution is considerable only in the areas of industrial training, internships and industrial visits.

Table-3: Level of Partnership in Practical Training by Private Enterprises

Contribution by TVET partners In Practical training support system	**(**Private enterprises**)**	
	Frequency	**Percentage**
Laboratories / Workshop construction	0	0%
Donation of training equipment	2	16.6%
Contributions in industrial training internships, and industrial visits	12	100%
Contribution in equipment sharing	1	8%

Concerning the aspect of practical training, Prosser and Allen [17] theory of vocational education states that Vocational education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work. Umar [18] stated that institutions of learning ought to establish partnerships with industries to enhance qualitative training, varied practices,

production of goods and services, knowledge of the world of work and opportunity for further training, employment and placement.

The findings of the study present are in agreement with those reported by Ahmed [19]. The study reported the private sector entity that allows for greater private participation in the delivery of public infrastructure project. This was achieved through services and distribution of equipment like radio, sewage disposal, communication, road, power, hostel and building or workshop, telecommunication, library, solar energy, traffic control, transportation, electric power system needed for the effective operation of technical vocational education programme. PPP projects will normally involve using assets such as school buildings and other facilities including equipment relating to specific services such as heating systems and delivering school meals [20].

CONCLUSION

The contribution of enterprise in establishment of workshops and laboratories, donation of equipment and equipment sharing was quite low. However, the contribution of enterprise in industrial training and internship stood was excellent. Majority of the respondents believed that enterprise contribution is considerable only in the areas of industrial training and internships. Therefore, provision should be made to involve experts from local industries as guest faculty to conduct practical classes.

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Conflict of Interest

The authors declare no conflict of interest.

REFERENCES

1. UNESCO. (2009). Progress on the implementation of the strategy for technical and vocational education and training (TVET) and the revised version of the strategy. Executive Board 182nd Se.
2. Okpor, I., & Najimu, H. (2012). Public-private partnership for skill acquisition and vocational technical education development in Nigeria. *Mediterranean Journal of Social Sciences*, *3*(4), 91-94.
3. Okoye, K. R. E., & Okwelle, P. C. (2013). Technical and vocational education and training (TVET) in Nigeria and energy development, marketing and national transformation. *Journal of education and practice*, *4*(14), 134-138.
4. Okafor, E. C. (2011). The role of vocational and technical education in manpower development and job creation in Nigeria. *Journal of Research and Development*, *2*(1), 152-159.
5. United Nations Educational, Scientific and Cultural Organization (UNESCO). (1991). World education report 1991.
6. Republic of Kenya. (2002). National Development Plan 2002-2008: Effective management for sustainable Economic growth and poverty reduction.Nairobi: Government printer.
7. Union, A. (2007). Strategy to revitalize technical and vocational education and training (TVET) in Africa. In *Meeting of the Bureau of the Conference of Ministers of Education of the African Union (COMEDAF II+)* (pp. 29-31).
8. Amadi, U. P. (2013). Appraising Work-Based Learning Experiences of Technical and Vocational (Teacher) Educationand Training (TVTET) Programmes In Nigeria. *Mediterranean Journal of Social Sciences*, *4*(5), 137.
9. Creswell, J. W. (2012). *A concise introduction to mixed methods research*. Sage Publications.
10. Yin, R. K. (2003). Case study research design and methods third edition. *Applied social research methods series*, *5*.
11. Creswell, J. W., & Zhang, W. (2009). The application of mixed methods designs to trauma research. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, *22*(6), 612-621.
12. Orodho, J. A. (2009). Elements of education and social science research methods. *Nairobi/Maseno*, 126-133.
13. Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative research*, *6*(1), 97-113.
14. Orodho, A. J. (2003). Essentials of educational and social sciences research methods. *Nairobi: Masola Publishers*.
15. Larocque, I., Pienitz, R., & Rolland, N. (2006). Factors influencing the distribution of chironomids in lakes distributed along a latitudinal gradient in northwestern Quebec, Canada. *Canadian Journal of Fisheries and Aquatic Sciences*, *63*(6), 1286-1297.
16. Patrinos, H. A., Osorio, F. B., & Guáqueta, J. (2009). The role and impact of public-private partnerships in education. Washington, DC: World Bank.
17. Prosser, C. (1925). O. & Allen Chas. *R. Education for a Democracy. New York City, Century Co*.
18. Umar, M., Aziz, H. A., & Yusoff, M. S. (2010). Trends in the use of Fenton, electro-Fenton and photo-Fenton for the treatment of landfill leachate. *Waste Management*, *30*(11), 2113-2121.
19. Ahmed, H. (2010). Building Capacity of Teachers and Trainers in Technical and Vocational Education and Training (TVET) in Sudan.
20. Akintoye, A., Hardcastle, C., Beck, M., Chinyio, E., & Asenova, D. (2003). Achieving best value in private finance initiative project procurement. *Construction Management and Economics*, *21*(5), 461-470.