



Challenges Facing Technical Training Institutes in Kenya: A Case of Nyeri, County

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ABSTRACT

Technical and Vocational Education and Training (TVET) was deemed as a key ingredient for Kenyans Economic development by offering mid-level technical managers for industrial transformation. The purpose of this study was to assess the challenges facing Technical Training Institutions in Nyeri County, Kenya. The Context, Input, Process and Product (CIPP) Theory formed the major theoretical framer for this study. The study adopted a descriptive survey research design. The study targeted 330 respondents among them Heads of Applied Sciences Department, Field Intern Supervisors and 275 interns from TVET institutions in the County. The study employed a questionnaire and interview guide as data collection instruments. The questionnaire and the interview guide were piloted to test for reliability and validity. Data analysis employed both quantitative and qualitative procedures using Statistical Package for Social Sciences (SPSS) Version 19 computer programme. Qualitative data was categorised into themes, coded and entered into the computer for analysis. Quantitative data was analysed using descriptive statistics (Chi-Test). The study showed that majority of the Head of Departments (HoDs) and TVET interns noted that TVET training was regarded as low-class education by the public. The study found that the respondents agreed that the technical institutions have well organized programmes for learners. The study also concluded that the technical institutes were poorly equipped for the market demand and often resulted in training with obsolete equipment. The Ministry of Industrialization together with the Ministry of Education should allocate more funding to technical institutions since they prepare middle level employees who are the key pillars of Kenyan's achievement of the Vision 2030.

Key words: Technical and Vocational Education and Training (TVET), Challenges, Nyeri County

INTRODUCTION

There are many obstacles facing TVET in sub Saharan Africa. Lauglo (2005) noted that the dilemma facing many Sub-Saharan countries is whether to concentrate investment in general or vocational education. General education has been touted to create a general human capital whereas technical education provides a more specialized and specific human capital. The general education provides flexibility which allows the holders to move from one job to another, whereas technical education is more specialised and thus does not allow for movement from one job to another without the need for further education.



Conversely, Carnoy (1994) noted that although technical training imparts job-related skills and the existence of high unemployment levels among holders of general education trainees, majority of people preferred general education particularly the youth who despise the technical education as more of a lower-class category of education. This perception is greatly influenced by the fact that majority of people in leadership are holders of general education and thus are able to shift focus to general education. Therefore, talking about the importance of TVET, without any deliberate action to follow up the rhetoric, will not change its poor image and low status. The findings of Carnoy holds that technical training is not preferred in Kenya since the citizenry deems university education as the ultimate. Therefore, the researcher holds the view that there is need to evaluate the attitudes of trainees. Within the early 1990s, numerous concerns were raised about the effectiveness of TVET in most developing countries. Nyankov (1996) posited that among the key challenges facing TVET institutions included poor quality content delivery by the tutors, high cost of running the TVET programmes as well as poor attitude by the public on TVET qualifications.

Dasmani (2011) concludes that there were many factors that affected the quality of education among them major ones included lack of equipment, lack of practical lessons among others. In his study, various interventions were pointed out various agencies and government which had to work in tandem to ensure that interns from technical colleges had pre-requisite skills in relevant fields of training. This would ensure that the interns fitted well in their technical jobs in industries and increase the employability of these trainees into formal employment.

The structure of educational programmes can determine the nature and quality of trainees of the programmes. Adhiambo (2015) noted that educational programmes in technical institutions may prove to be a challenge in provision of quality training to TVET trainees. They underscored the need to have structured and well organized programmes to be implemented such that the programmes are aligned to the technology applied by the industries at the time. Adhiambo (2015) therefore noted that TVET institutions needed to ensure that they have structured programmes that are responsive to the needs of the industry. In order, they noted that technical institutions should focus on outcomes in terms of the skills, knowledge and attitudes required in the industry. Therefore, technical institutions must be responsive to the demands of industry.

King and McGrath (2004) noted that the workplace had evolved drastically between 1990s and 2000. This meant that technical colleges had to re-orient their programmes to fit the new workplace. They argued that technical institutions were more conservative in their programmes and as such many failed to update their programmes to suit the dynamics of the industry. They noted that majority of the programmes offered in technical institutions were outdated and skills learned by their trainees had to be upgraded through offering of internships in industry. UNESCO (2006) noted that the technical institutions were meant to offer skills to trainees for self-employment and raise the productivity of the informal sector employers. UNESCO identified lack of resources needed to ensure the technical programmes offered met the two objectives. They noted that technical programmes were expensive to set up and implement and therefore lack of resources hindered the programmes implementation.

Islam and Mia (2007) study in Bangladesh focused on formal and informal technical training missed out on effective linkages between the programmes and the industry needs. They



argued that due to lack of coherent mode, technical institutions trainees lacked the practical skills training requisite skills for the job market. Islam and Mia (2007) also noted that the trainees lacked the training experience, initiative and motivation to discharge their duties effectively in the market.

Kamau (2013) noted that the current technical training curriculum is not well defined and lacking as well as being rigid in nature. As such, Kamau noted that it did not meet the technological changes and diverse needs of the industry. The study also noted that the quality of technical trainees has been on the decline due to poor instructional programmes among other challenges facing the interns in TVET institutions. The study singled out lack of practical experience as one of the key challenges.

Further, Kamau (2013) noted that most technical institutions did not have pre-requisite training facilities. Majority of the institutions had run-down equipment, obsolete machines, demotivated staff and inadequate financing. The technical institutes did not have a staff promotion framework, did not provide for staff reward system among other human resource management issues. The institutes did not provide in-service training for their staff. The potential of TVET is also greatly limited by the low government investment towards this sector. Rao (1996) noted that majority of the developing countries do not equip or pay attention to technical institutions in their budgetary allocations. As such, the technical institutions are least funded compared to other education sub-sectors such as primary, secondary or university. This leaves the technical institutions to seek alternative funding which is not guaranteed such as donor funding or even sponsorships. However, Rao observed that these alternate funding is not so readily available since the TVET institutions have to compete with other programmes that are funded by the sponsors and funding organizations.

A study by Ziderman (2016) found out that majority of training systems in Sub-Sahara Africa have to deal with the reality of diminishing government funding. The study noted that funding of technical education is on ad hoc basis and there are variations noted every year. According to Ziderman (2016), this brings a lot of uncertainty and budgetary limitations. Technical institutions thus have limited budgets and thus are unable to employ, buy facilities and equipment, and update their programmes to meet the dynamic industry as well as meet the technological needs of the industry. The researcher notes that Kenya is a developing nation and as such the government funding as in any other countries probably has been on a decline and as such the training could have been on the decline.

Okello (2011) posited that in Uganda majority of the supervisors and middle level managers who are charged with induction of newly employed trainees indicated that the trainees from technical training institutions lacked in some aspects of the job market. He attributed this to lower technology of equipment that trainees were exposed to during their classroom practicals or poor training by the trainers.

In Kenya, there is low investment in technical courses such as engineering and electronics which is a setback to Kenya's economy (Herbling, 2012). These courses require large capital to establish and sustain the programme. Technology is one of the most dynamic aspects of education in the world. Castellano et al (2003) argue that due to changes in the technology in industries, scores of people were unemployed. They noted that technical institutions needed to align their programmes to meet the technological needs of the future so that they remain



relevant. They noted that the current programmes were aligned on old technology and therefore produced trainees not well suited for the market. These graduates therefore needed further training in the industry which became expensive for majority of the firms. The study noted that young people from technical institutions were looking forward to well-paying jobs but they could not gain direct entry since the industry required them to have internal training which was offered at no salary for the period. This situation demoralized future trainees of TVET and majority developed a negative attitude towards TVET.

Simiyu (2009) in a study of Kaiboi Technical Institute in Kenya noted that there had been a positive attitude and acceptance of technical education among Kenyans. He indicated that the principals of these technical institutions played a central role towards ensuring the general acceptance of technical education by observing that the trainees and human resource have tangible achievements. He also indicated that principals of these institutions should apply modern human resource approach in order to motivate their staff and in turn affect the quality of teaching in the technical institutions. Simiyu noted that the role of TVET as an effective means of empowering the society to engage in productive and sustainable living cannot be over-emphasized.

METHODOLOGY

This study adopted a descriptive survey design. Descriptive survey design laid greater emphasis on sample selection because the major concern is to obtain a broad picture of the social problem prevailing in the defined universe and make recommendations to bring about the desired change. Mugenda and Mugenda (2003) argued that descriptive survey is relevant in establishing the situation under study as it was. This study was relevant in assessing the trainees of technical training institutions in Nyeri County, Kenya.

The total population was 330 respondents and this considered that they can be contacted with ease as their references are available in their institutions. There were 45 companies that offered attachment positions for majority of the trainees from the four institutions, each with at least four departments (Applied Sciences, Health Sciences, Institutional Management and Mechanical or Automotive Engineering) where the trainees were trained.

The study applied simple random sampling to select the respondents to the research instruments. A list of trainees on attachment was obtained from the Heads of Departments and the researcher randomly selected 14 learners from Michuki Technical, Nyeri Technical and Mathenge Technical and 13 finalists from Othaya Technical to arrive at a total of 55. The researcher also purposively sampled eight supervisors and ten Heads of Departments.

The study employed a questionnaire and interview guide as the primary data collection instruments. The instruments were designed in a simple and straight forward language making it easy for the respondent to work on them. The questionnaire consisted of both open-ended and closed questions which had been designed specifically for the respondents in line with the research objectives. The tools were tested for reliability and validity and a Pearson Product Moment Correlation Coefficient was calculated for each questionnaire. In social sciences, acceptable reliability coefficient ranges from 0.6 to 1.0 (Mugenda & Mugenda, 2003). The Reliability Coefficient for the TVET Heads of Department Questionnaire was 0.767 and the TVET Trainees Questionnaire was at 0.748.



RESULTS

The study sought to establish the challenges that face TVET interns in Kenya. A series of statements were issued to the HoDs, Trainees and supervisors and the responses are summarized in the paragraphs that follow. The Respondents were asked if cut in spending in technical institutions has led to cuts in volume of training in the institutions and the responses are summarized in Table1 below.

Table1: Expenditure cuts and Volume of Training Programmes

Responses	Head of Departments		Trainees	
	Frequency	Percent	Frequency	Percent
Agree	5	62.5%	11	22.9%
Strongly Agree	3	37.5%	37	77.1%
Total	8	100.0%	48	100.0%

Data presented in Table1 shows that all the HoDs agreed and strongly agreed to the statement that the expenditure cuts in TVET has led to reduction of training programmes since the funds are not sufficient to support all the programmes in these institutions. Analysis shows that 22.9% of the trainees agreed with the statement and another 77.1% strongly agreed with the statement. The findings correspond to the findings in Adhiambo (2015) as well as King and McGrath (2004) who observed that the technical training institutions have been faced with financial constraints to support particular training programs. They argued that financial constraints also limited the capacity of technical institutions to introduce new programmes to support the technological advancement that the employers have adopted.

The study agrees with the findings noted by King and McGrath (2004) since some technical institutes have basic programmes and learners have to look for alternative educational institutions for them to further pursue their career courses.

The respondents were also asked if in their opinion the education and training received by the interns was programmed for the market and the responses are summarized in Table 2 below.

Table 2: Training in Technical Institutes is highly programmed

Response	HoDs		Trainees	
	Frequency	Percent	Frequency	Percent
Strongly Disagree	0	0.0%	0	0.0%
Disagree	1	12.5%	2	4.2%
Agree	0	0.0%	22	45.8%
Strongly Agree	7	87.5%	24	50.0%
Total	8	100.0%	48	100.0%

Results show that majority of the HoDs indicated that they strongly agreed with a minority disagreeing with the statement that the TVET training is highly programmed and well-structured programmes for learners. Results also show that majority (95.8%) of the trainees indicated that they strongly agree and agreed respectively with the statement. The study



finds that the respondents agreed that the technical institutions have well organized programmes for learners.

The findings concur with UNESCO (2004) that majority of the technical institutions have well organized programmes that learners undertake. These programmes were noted by UNESCO to cater for self-employment after graduation or employment into technical departments. Islam and Mia (2007) study in Bangladesh revealed that formal and informal technical training missed out on effective linkages between the programs and industry needs. The study agrees with UNESCO (2004) and Islam and Mia (2007) that technical institutes should enact and drive well organized curriculum to provide the manpower required for development.

The study asked the respondents to comment if in their opinion the interns were trained using adequate equipment needed for their course and the responses are summarized in Table 3 below.

Table 3: Adequate Equipping of Technical Institution

Responses	Head of Departments		Trainees	
	Frequency	Percent	Frequency	Percent
Strongly Disagree	3	37.5%	8	18.6%
Disagree	3	37.5%	13	30.2%
Agree	2	25.0%	2	4.7%
Strongly Agree	0	0.0%	20	46.5%
Total	8	100.0%	43	100.0%

Data shows that minority (37.5%) of the HoDs indicated they strongly disagree with the statement that the interns were taught using equipment that was appropriate for the job requirement. Also, another 37.5% disagreed with the statement. Analysis of the responses also show that a partly 25% of the HODs indicated that TVET institutions were well equipped. Data in Table 3 also shows that 18.6%, 30.2 and 46.5% of the learners indicated strong disagreement, disagreement and strong agreement respectively with the statement that the technical institutes were well equipped. The study thus concludes that the technical institutes were not well equipped. The finding concurs with Okolocha (2012) who established that technical institutes were lagging behind in terms of the equipment that were available for learners. The study had argued that with the expansion in terms of student population, changes in technological advancement among other key factors, the equipment in technical institutes were not adequate to cater for the new dispensation.

CONCLUSION

The study concludes that TVET in Kenya faced several challenges that adversely affect the quality of education in these institutions. The study further concludes that the training offered to learners in TVET institutions is too theoretical. Too much theoretical training did not prepare the learners adequately for the work-place on hands experience. Therefore, the learners were incompetent during their attachment and thus most companies avoided accepting learners from TVET institutions. This made it difficult for the TVET interns to seek attachment and jobs after training.



However, in an attempt to cushion their graduates, technical training institutes allowed an attachment period of between three months and six months. However, this was an additional cost to the learners and discouraged many to enroll in TVET institutions. It is during the attachment period that TVET interns learn how to operate and work with the new technologies which are way advanced than their class equipment. It is also during this period that the interns get new skills from supervisors who have worked with the new technologies for a long time.

The study also concludes that TVET institutions faced financial challenges. These challenges are associated with the framework under which the technical training institutions operate in. As the Teachers Service Commission supply teaching and training staff, the Ministry of Education provides the basic infrastructure and that TVET Authority provides the operational framework for technical institutes. This overlay of TVET being under three distinct authorities, contributes to financial lags as each department tries to lay the financial support on other departments. However, the streamlining of technical training to fall under TVET Authority might see harmonization and increased financial support to technical training institutes.

The study concludes that although technical training institutes have very good programmes, the resultant training infrastructure at times does not support the programmes. Therefore, the institutes highly depend on the industrial attachment to instill the required technical skills..

RECOMMENDATIONS

The study recommends that the Ministry of Education and the Ministry of Industrialization should develop a scheme of training for technical training institutions. This would enhance technology transfer from industry to the training institutions with the aim of equipping trainees with market driven technical skills. The study further recommends that the Technical and Vocational Education and Training Authority (TVETA) should ensure upgrade the current equipment in the technical training institutions to enhance quality training.

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