

Strategies That Enhance Students Access to Public Technical Training Institutions in Kenya

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Abstract

Stakeholders in the education sector in Kenya are concerned about low students' participation in Technical Training Institutions. Despite the Government of Kenya's efforts to upgrade infrastructure in these institutions, students' participation has remained low yet the realisation of Vision 2030 depends on middle level training. Therefore this study was conceptualised to establish strategies adopted by Technical Training Institutions to support students access in these institutions. This study was conducted in Western Region of Kenya. Western Region comprise of the former Western, Nyanza and rift valley Provinces. The sample constituted of 200 lecturers (principals, deputy principals, heads of departments and registrars) and 400 students from 30 Technical Training Institutions. Data was collected using questionnaires. The results show that the strategies used to attract students are bursaries, provision of competitive courses and opening more centres. However these strategies do not attract students to these Technical Training Institutions because of weak administration and implementation by the institutions. It was recommended that in an effort to promote enrolment in Technical Training Institutions, the Kenyan Government should fully fund students enrolled in Technical Training Institutions. Besides Technical Training Institutions should enhance advertisement of the courses offered; strengthen distance/e-learning; and review courses offered to meet the market demand.

Introduction

Technical Training Institutions are well placed to train skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty. The Technical Training Institutions can also cater for different levels of sophistication including responding to the different training needs of learners from different socio-economic and academic backgrounds. Besides, Technical Training Institutions prepare students for gainful employment and sustainable livelihoods. Thus the youth, the poor, the vulnerable and all people in the society can therefore benefit from Technical Training Institutions (Chiuri and Kiumi, 2005; African Union, 2007).

Himelstein (2007) observes that Career and Technical Education in California, USA is receiving increased attention and interest by policy makers, educators and business as they look for ways to keep learning relevant for students in Technical Education and prepare them for career. Similarly Indonesia Technical Training Institutions have been given emphasis (Bray, 2002). These initiatives are based on the understanding that Technical Education improves an individual's life and enriches the wider society by raising productivity, efficiency and effectiveness (World Bank, 2000a; ILO, 2010). Furthermore, since education is considered the key to effective development strategies, Technical Education is seen as the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development (World Bank, 2000a).

According to Uwaifo (2009) training of technical personnel for the purposes of initiating, facilitating and implementing the technological development of a nation and also creates the basic awareness of technological literacy to the youth. In addition Technical Education permits the training of technically oriented personnel who can initiate, facilitate and implement technological development leading to self-reliance and sustainability.

However, technical education in developing countries suffers several shortcomings among them limited resources for expansion, exclusion of Technical Education from the main stream curriculum, lack of guidance services, inadequate training of technical teachers, lack of teaching resources and problems with public perceptions of technical education as a low status education. Therefore there is a tendency of well-trained technical teachers seeking jobs in the private sector rather than the public sector due to higher salaries offered and the prestige attached to such appointments (World Bank, 2000a).

Moreover the public and even parents consider Technical Education less endowed academically. In many African countries, students entering the Technical Education stream find it difficult, if not impossible, to proceed to higher education (African Union, 2007; Bogonko, 1992). In Benin, for example, girls in Technical Training Institutions are derogatorily referred to as following the "c" option of the technical education curriculum (African Union, 2007).

Therefore there has been heightened demand for the government to enhance enrolment in Technical Training Institutions through funding them. In Kenya for example, Boit, Wambua and Kosgei (2007) argue that without government intervention in financing technical education, only individuals who could afford to pay tuition fees would enrol. The consequence of this is

that students from wealthier family backgrounds will have better chances of access to Technical Education in comparison to students from poor backgrounds (Alam, 2007).

In an effort to mitigate the challenges affecting the Technical Education in Kenya, a policy framework was developed to address inadequate facilities, low capacities, underutilization of available training facilities and mismanagement of Technical Training Institutions (Republic of Kenya, 1996; 2005a; 2005b). However to date the challenges that affect students' access to Technical Training Institutions are yet to be mitigated.

When the Government of Kenya established Technical Training Institutions, it aimed at producing adequate skilled labour force to meet the demands of the Kenyan industry. The Kenya Vision 2030 aims at propelling the Kenyan economy as a middle income economy by expanding industrial activities which demand a higher number of technical skilled staff. Therefore concerns have been raised by stakeholders about Technical Training Institutions inability to produce the required manpower as a result of limited access. This has also been seen as a major setback to the achievement of the Kenya Vision 2030 due to the scarcity of technical human resources (Republic of Kenya, 1996, 2008). It is expected that enhanced enrolment in Technical Training Institutions also facilitate achievement of Millennium Development Goals. The Ministry for Planning in this regard raised concerns about the low access to Technical Training Institutions in Kenya. To address this, the Ministry of Planning signed a partnership with the African Bank to construct 13 more Technical Training Institutions in selected Counties to cater for over 400,000 form four leavers who may not get places in already stretched universities (Shilitsa, 2012).

However within a period of five years between 2006 and 2010, students' enrolments in Technical Training Institutions have stagnated at 60,000 in all the public Technical Training Institutions in Kenya besides government efforts (Republic of Kenya, 2011a). In Western Region only about 25,000 students are enrolled in Technical Training Institutions despite the technological needs of the region and high secondary school graduates due to the subsidized secondary education. THE Technical training Institutions referred to here are National Polytechnics, Technical Training Institutes and Institutes of Technology. According to Sessional paper no. 1 of 2005 a small proportion of eligible school leavers are absorbed in Technical Training Institutions and where engineering programmes attract a mere 5% of the students. Besides, there is gender disparity in access to Technical Training Institutions in favour of boys (Republic of Kenya, 2005a). According to Oyuke (2013) there are only 1,145 graduate technicians in Kenya of which 0.6% are women.

The Government of Kenya has always emphasized the training of technical skills through awareness, sponsorship, donor funding negotiations and expansion of Technical Training Institutions. Moreover, the Sessional Paper Number 1 of 2005 (Republic of Kenya, 2005a) Kenya Education Sector Support Programme (Republic of Kenya, 2005b) and Vision 2030 (Republic of Kenya, 2008) have emphasized the need for Technical Education for employment and industrial development. Unfortunately enrolment in Technical Training Institutions has remained low since independence in 1963. With low enrolments, Technical Training Institutions are devising methods that are geared towards boosting high enrolment rates. These strategies include good

performance, advertisement, attractiveness, opening of more learning centres in towns and open and distance education.

Conceptual Framework

The relationships between independent and dependent variables are explained in Figure 1.

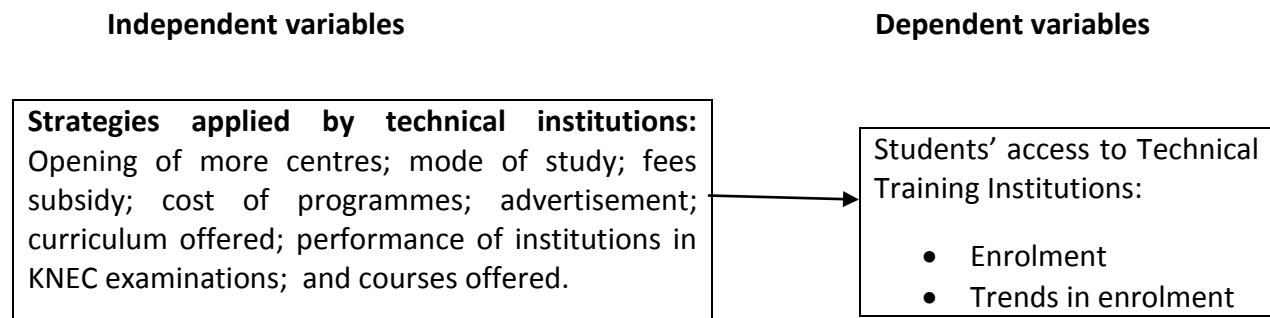


Figure 1: Relationship between study variables.

Students' access to Technical Training Institutions is measured in terms of the number of students enrolled. The independent variables which cause students to either enrol or not include students' strategies used by Technical Training Institutions to attract high enrolment (Figure 1).

Strategies each Technical Training Institution puts in place can influence the level of enrolment of students. These strategies among others are opening of more study centres or campuses; mode of study; fees subsidy; cost of courses; advertisement; curriculum offered; performance of institutions in Kenya National Examinations Council examinations; and courses offered. The mode of study includes full time, part-time, distance and e-learning. A combination of these factors is assumed would influence the enrolment in these institutions.

Fees subsidy can be seen in terms of work study, waiving fees for students and institutional bursary. The amount spent on this subsidy can to a large extent influence access to Technical Training Institutions. Different courses attract different fees levels. The more or less costly the course is can also affect the number enrolled. There are those who may enrol based on the cost as it is assumed the higher the cost of the course the more marketable it is. Some may enrol due to affordability of the course. In some cases some prospective students do not have information on where to study. Whichever Technical Training Institution advertises for its courses by the most accessible means the higher the chances of admitting more students. The curriculum offered also influence access. Is it more theory or practical in nature? Is it student or teacher centred? The students usually get information on how different Technical Training Institutions offer their content. Students would also wish to enrol in institutions whose results have been consistently good. In cases where most of the previous enrolled students failed Kenya National Examinations Council examinations, the prospective students may think twice before enrolling. The gauge may be the percentage pass of students who sat for Kenya National Examinations Council examinations. Different Technical Training Institutions also offer different courses. There are those who offer science oriented courses, others offer technical while others

offer engineering or a combination of these courses. Furthermore, the more courses an institution offers the more likely the enrolment is high.

Objectives of the Study

The objectives of this study were to:

- i. Establish the strategies used by Technical Training Institutions to enhance students' access to public Technical Training Institutions in Western Region of Kenya.
- ii. Determine lecturers' perception of the strategies used by Technical Training Institutions to enhance students' access to public Technical Training Institutions in Western Region of Kenya.
- iii. Determine students' perception of the strategies used by Technical Training Institutions to enhance students' access to public Technical Training Institutions in Western Region of Kenya

Research Methodology

This study used descriptive survey research design. This research design explains the state of affairs as they exist in a setting and is used when questionnaires are used in data collection and when collecting information about people's educational and social issues (Orodho and Kombo, 2002; Orodho, 2003; Kombo and Tromp, 2006). Moreover, descriptive research design is an appropriate process of collecting information for the purpose of testing hypotheses or responding to questions about the existing status of a sample (Gay, 1981). Also this research design is relevant when a researcher needs to determine and describe behaviour, attitudes, values and characteristics of a sample (Mugenda and Mugenda, 2003). According to Kothari (2004) descriptive research design is a method that analyses comparative and correlational issues that this study endeavoured to attain. This study determined access to Technical Training Institutions in Western Region of Kenya and established relationship between different variables. Hence, the descriptive research design was found the most suited for this study.

This study was conducted in Western region of Kenya. Western Region comprises of the former Western, Rift Valley and Nyanza provinces. The sample constituted 200 lecturers (principals, deputy principals, heads of departments and registrars) and 400 students from 30 Technical Training Institutions. Questionnaires were used to collect data. Frequencies, percentages, standard deviation, analysis of variance (ANOVA), Scheffe's post hoc test and Chi square were used in data analysis. Hypotheses were tested at 0.05 significance level. The summary of findings was presented in tables.

Results and Discussion of Findings

This chapter presents data analysis, presentation, interpretation and discussion of findings. The data collected were coded, keyed in the SPSS version 21 programme and cleaned before analysis was carried out. The purpose of the study was to establish strategies used by Technical Training Institutions to enhance students' access to public Technical Training Institutions in

Western Region of Kenya. A number of strategies are used to promote enrolment in Technical Training Institutions.

Recipients of Bursary from Technical Training Institutions

Some Technical Training Institutions have started bursary schemes to assist needy students access Technical Education. It is expected that all those who come from low Socio Economic Status background should apply for these funds.

Table 1: Recipients of bursary from Technical Training Institutions

| Amount of bursary received | Socio-economic status of students | | |
|-----------------------------------|------------------------------------------|-------------|--------------|
| | Low | High | Total |
| Nothing | 13 | 1 | 14 |
| Below 5000 | 2 | 0 | 2 |
| 5001-10000 | 3 | 0 | 3 |
| 10001-15000 | 1 | 0 | 1 |
| 15001-20000 | 1 | 0 | 1 |
| Total | 20 | 1 | 21 |

Source: Field data, 2013

As shown in Table 1 only 21 (5.25%) students of the respondents applied for bursary provided by respective Technical Training Institutions. Of these applicants, only 7 (33.3%) received the bursary. Although this is a positive gesture, this is such a small number that the effect may not be felt. It is important also to note that all the beneficiaries are from low socio economic status. The number of applicants may be small because the Technical Training Institutions have limitations as to the number of applicants and amount of money set aside for this purpose.

Establishment of Study Centres

Some TTIs had established study centres that would enhance students' enrolment. Most of these TTIs locate the study centres in urban areas. Due to lack of facilities in the main campus, the centres end up training students in non technical and engineering specialisations. Most students join business related courses.

Establishment of Online/Distance Learning

The Government of Kenya has in the recent past developed a policy document on online/distance learning. However, the programme has not been well developed and

implemented by all the learning institutions visited. There were pockets of students especially the working class who use this mode through the module system.

Advertisement

The information about the courses offered by different Technical Training Institutions always influence access to these institutions. Lack of information may make some institutions unable to receive students. It is important that students receive information from Technical Training Institutions on its location, courses offered, fees charged and bursary for some students. Table 2 indicates how students received information for their admission.

Table 2: Ways in which students received information for admission

| Mode of information | Frequency | Percent | Cumulative Percent |
|----------------------------|------------------|----------------|---------------------------|
| Friends | 104 | 26.0 | 26.0 |
| Television | 136 | 34.0 | 60.0 |
| Radio | 14 | 3.5 | 63.5 |
| Brochure | 23 | 5.8 | 69.3 |
| Website | 28 | 7.0 | 76.3 |
| Newspaper | 10 | 2.5 | 78.8 |
| College Newsletter | 39 | 9.8 | 88.5 |
| Others | 46 | 11.5 | 100.0 |
| Total | 400 | 100.0 | |

Source: Field data, 2013

It is worth noting from Table 2 that most (34.0%) students received admission information through television announcements. It is unfortunate that 37.5% of the students received their admission information outside the Technical Training Institutions control. This implies that Technical Training Institutions do not endeavour to reach all the prospective students within their catchment areas. This would eventually affect the number of students enrolled.

Lecturers' perception of the strategies used by Technical Training Institutions to enhance students' access

The strategies Technical Training Institutions adopt have influence on enrolment of students. It is important to assess the extent to which lecturers rate these strategies on their effect to access. The lecturers were heads of departments, principals, deputy principals and registrars. Table 3 presents lecturers' perception of these strategies.

Table 3: Descriptive statistics on lecturers’ perception of the strategies used by Technical Training Institutions to enhance access

| Strategies used by TTIs to enhance access | Extent of the effect of the strategy in % | | | | | Mean | SD |
|---------------------------------------------|-------------------------------------------|------|------|------|------|------|-------|
| | VH | H | M | L | NAA | | |
| The college offers distance/online learning | 0.5 | 10 | 9.5 | 10.5 | 69.5 | 4.39 | 1.05 |
| Co-curricular activities are well funded | 13.5 | 24.5 | 34 | 25 | 3 | 2.80 | 1.058 |
| The courses offered are marketable | 18.5 | 55 | 25.5 | 1 | - | 2.09 | 0.69 |
| Study centres attract students | 12.5 | 27 | 26 | 10 | 24.5 | 3.07 | 1.36 |
| Affordable fees is charged | 13.5 | 57.5 | 21.5 | 5 | 2.5 | 2.26 | 0.84 |
| Courses are well advertised | 24.5 | 39 | 26 | 4.5 | 1 | 2.09 | 0.91 |
| The college offers bursaries to students | 18.5 | 23.5 | 20 | 18 | 20 | 2.98 | 1.40 |

Source: Field data, 2013

N=200

Key - VH-Very high, H-High, M-Moderate, L-Low, NAA-Not at all SD-Standard deviation

Table 3 presents the findings on lecturer’s perception of the strategies used by Technical Training Institutions to enhance access. The factors that seem to be highly used to attract students are affordable fees (57.5%), marketability of courses (55%) and advertisement of courses (39%). The strategies that have least impact on access include use of distance and on-line learning (69.5%) and opening of study centres/campuses (24.5%). When the factors are assessed in terms of the average influence on students’ access, advertisement and marketable courses have the highest influence (mean=2.09). This is followed closely by charging of affordable fees (mean=2.26). The factor that least affects access is the use of distance/online learning (mean=4.39). Distance/e-learning is a mode of learning that should be explored because many institutions have not given it the required attention. These findings indeed support the number of students enrolled through this mode of study. The standard deviations of more than one denote variations in the response to the items in the strategies.

Relationship between lecturers’ gender and their perception of the strategies used by Technical Training Institutions to enhance access

To establish relationship, the null hypothesis that there is no significant relationship between lecturers’ gender and their perception of the strategies used by Technical Training Institutions to enhance access was tested.

**Table 4: Chi-square on lecturers’ perception of strategies used by Technical Training Institutions to enhance students’ access
N=200**

| Strategy | χ^2 | P | Cramer’s V |
|----------------------------------------------------|----------|-------|------------|
| Colleges offer distance/online learning | 0.238 | 0.626 | 0.11 |
| Co-curricular activities are well funded | 0.064 | 0.801 | 0.20 |
| Courses offered are marketable | 2.676 | 0.103 | 0.15 |
| Study centres have been opened to attract students | 2.342 | 0.128 | 0.21 |
| Affordable fees is charged | 1.532 | 0.217 | 0.16 |
| Courses are well advertised to attract students | 0.281 | 0.596 | 0.13 |
| Colleges offer bursaries to students | 2.875 | 0.092 | 0.18 |

Source: Field data, 2013

The lecturers perception of the strategies that enhance students’ access had varied outcomes as presented in Table 4. The Chi-square was used to establish the variation in responses as expressed by lecturers. For all the factors, there was no significant relationship between the lecturers’ perception ($p>0.05$) of the factors that influence access to Technical Training Institutions. This shows that all the lecturers had similar response on all the factors that influence access. It follows that the null hypothesis that there is no significant relationship between the lecturers’ perception of the strategies that influence access was accepted. For the characteristics whose association was significant, the extent of relationship was low ($V<0.4$).

Students’ perception of the strategies used by Technical Training Institutions to enhance access

The strategies Technical Training Institutions adopt have influence on enrolment of students. It is important to assess the extent to which students rate these strategies on their effect to access.

Table 5: Descriptive statistics on students’ perception of the strategies used by Technical Training Institutions to enhance access

| Strategies used by TTIs to enhance access | Extent of the effect of the strategy in % | | | | | | |
|---------------------------------------------|-------------------------------------------|-------|-------|-------|-------|------|------|
| | VH | H | M | L | NAA | Mean | SD |
| The college offers distance/online learning | 6.25 | 11.25 | 29 | 17 | 36.5 | 3.66 | 1.25 |
| Co-curricular activities are well funded | 14.25 | 16 | 44.75 | 17.75 | 7.25 | 2.88 | 1.09 |
| The courses offered are marketable | 29 | 31.5 | 38 | 0.75 | 0.75 | 2.13 | 0.87 |
| Study centres attract students | 11.25 | 21 | 38.5 | 10.75 | 18.5 | 3.04 | 1.23 |
| Affordable fees is charged | 16.25 | 20 | 47 | 9.5 | 7 | 2.72 | 1.08 |
| Courses are well advertised | 21.5 | 23.25 | 39.25 | 11.5 | 4.5 | 2.54 | 1.09 |
| The college offers bursaries to students | 13.5 | 16.5 | 29.75 | 16.5 | 23.75 | 3.21 | 1.34 |

Source: Field data, 2013

N=400

Key - VH-Very high, H-High, M-Moderate, L-Low, NAA-Not at all SD-Standard deviation

Students’ response on strategies used by TTIs to enhance access shows little success as shown in Table 5. Six of the seven strategies moderately influenced access. Just like for lecturers, most (36.5%) students also indicated that distance/online education did not offer effective influence on access. The strategies TTIs are to use to enhance access have not been given the attention they deserve.

The mean score as shown in Table 5 indicates that strategies have average (3.00) influence on students’ access. This implies that Technical Training Institutions seem not to capitalise on the needs of the society and their knowledge to use these strategies effectively to increase enrolment. The only factor that has no much known influence on access is distance/online education. These findings indeed support the number of students enrolled through this mode of study. The standard deviations of more than one denote variations in the response to the items in the strategies.

Relationship between students’ gender and their perception of the strategies used by Technical Training Institutions to enhance access

To establish relationship, the null hypothesis that there is no significant relationship between students’ gender and their perception of the strategies used by Technical Training Institutions to enhance access was tested.

Table 6: Chi-square on students' perception of strategies used by Technical Training Institutions to enhance access

| Strategy | F | P | Cramer's V |
|----------------------------------------------------|----------|----------|-------------------|
| The college offers distance/Online Learning | 1.322 | 0.216 | 0.11 |
| Co-curricular activities are well funded | 2.322 | 0.012 | 0.20 |
| Courses Offered are Marketable | 1.701 | 0.078 | 0.15 |
| Study centres have been opened to Attract students | 1.568 | 0.114 | 0.21 |
| Affordable Fees is Charged | 1.743 | 0.069 | 0.16 |
| Courses are well advertised to attract students | 0.967 | 0.472 | 0.13 |
| The college offers bursaries to students | 2.486 | 0.007 | 0.18 |

Source: Field data, 2013

N=400

The findings in Table 6 indicate that there was no significant relationship in students' perception of the strategies used by Technical Training Institutions to enhance access ($p > 0.05$) in all strategies except a strategy where Technical Training Institutions offer bursaries to students and co-curricular activities are well funded ($p < 0.05$). For the characteristics whose association was significant, the extent of relationship was low ($V < 0.4$).

Conclusion and Recommendations

The following conclusion and recommendations were derived from the findings.

Conclusion

The following conclusions are derived from the study.

- i. The strategies that are being used by Technical Training Institutions to enhance students' access are weak and not well implemented.
- ii. There are no policies guiding Technical Training Institutions in the choice of strategies that would enhance students' access to their institutions.
- iii. The means used to reach prospective students' on the courses, date of admission and the quality offered by different institutions is weak and not well thought of.
- iv. The number of students granted bursaries from the Technical Training Institutions are few and the amount is little.
- v. Distance/e-learning have not been emphasized in Technical Training Institutions as the case should be.

Recommendations

The following recommendations should be applied in technical training institutions to enhance students' access:

- i. The task of developing a comprehensive training policy strategy remains to be addressed in Kenya and the capacity to carry out the kind of analysis needed supported.
- ii. There is need to measure skills demand and supply. Thus to be productive, educational expansion should be related to demands generated by the realities of local labour markets.
- iii. There should be a pro-poor stance in the provision of education with more funds geared towards bursaries for those from low socio economic status.
- iv. To promote enrolment, the Government of Kenya should fully fund students enrolled in technical training institutions; the institutions should advertise vigorously; distance/e-learning should be strengthened; and marketable courses should be provided.
- v. Upgrading of infrastructure in most technical and engineering specializations. This should be done in conjunction with all the stakeholders that are more aware of the market whether national or global.
- vi. Investing in skills that are grounded on social, economic and labour market demands.
- vii. Encourage women interested in the technical knowledge to take their place and rights to access the male dominated sector. This can be enhanced by providing required support.
- viii. Training institutions should seek professional advice on how to reach and attract prospective students to their institutions.
- ix. There should regular Government analysis of the number of students enrolled in Technical Training Institutions with a view to establishing means of increasing the numbers.

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