academicJournals

Vol.6(9), pp. 170-180, November, 2014
DOI: 10.5897/IJEAPS2014.0381
Article Number: D97581448533
ISSN 2141-6656

http://www.academicjournals.org/IJEAPS

International Journal of Educational Administration and Policy Studies

Full Length Research Paper

Impact of performance contracts on the utilization of teaching and learning resources in technical institutes in Kenya

Biutha Manwa Mosomi*, Jonah N. Kindiki and John M. Boit

Moi University, Department of Education Management and Policy Studies, Kenya.

Received 9 September, 2014, Accepted 13 October, 2014

Performance contracting has been acclaimed as an effective and promising means of improving the performance of public enterprises as well as government departments. The government of Kenya introduced performance contract signing in 2004. The aim of performance contracts was to improve resource utilization in public institutions among other objectives. This study sought to establish the perceptions of Kenyan tutors in selected Technical Institutes in Kenya about the impact of performance contracts on the utilization of teaching and learning resources. A survey strategy was adopted in this study. The study population comprised tutors, heads of department and principals of randomly selected public Technical Institutes in Kenya. The stratified random sampling technique was applied in the selection of the study sample. Thereafter proportionate random sampling technique was applied to get an equal proportion of respondents from each stratum. Saturated sampling technique was used to sample the heads of department and principals. Mixed methods were applied in the collection of data. This entailed the supplying of questionnaires to tutors, heads of department and principals of the sampled technical institutes. Interviews were conducted with principals of the sampled institutions. The data collected were analyzed by use of descriptive and inferential statistics. The findings of the study revealed that performance contracting had not led to tutors being trained on the proper utilization of learning and teaching resources. The study concluded that financial constraints hindered tutors from being trained on the utilization of modern learning and teaching resources. It is recommended that the gains made in the implementation of the performance contracting strategy should be strengthened with the availing of more financial resources to ensure that the required learning and teaching resources are all made available. The findings would help education policy makers to address the issue of performance contracts from an informed position as well as get insight on how to apply performance contracts in the optimum utilization of resources.

Key words: Performance contracting, resource utilization, teaching and learning, technical, industrial, vocational education and training (TIVET), tutors.

INTRODUCTION

The use of performance contracts has been acclaimed as an effective and promising means of improving the

*Corresponding author. E-mail: manwamosomi@yahoo.com.

performance of public enterprises as well as government departments (Letangule and Letting, 2012). Governments are increasingly faced with the challenge to do things but with fewer resources (Kobia and Mohamed, 2006; Letangule and Letting, 2012). Performance contracts have been defined as a range of management instruments used to define responsibilities and expectations between parties to achieve mutually agreed results. Additionally, performance contracts are described as agreements between a government and a public agency which establishes general goals for the agency, sets targets for measuring performance and provides incentives for achieving those targets (Letangule and Letting, 2012).

According to Hooker et al. (2011) the technical, industrial, vocational education and training (TIVET) subsector is critical to the development of industry and required human capacities. High quality training services must therefore be delivered by the subsector to enhance productivity and required competencies. Good and competitive technical, industrial, vocational education and training (TIVET) systems in developing and emerging economies provide highly skilled labor to attract direct foreign investment. Every year, thousands of students leave the regular formal educational institutions in Kenya, but they cannot progress to higher levels of formal education (Onsomu et al., 2009). The TIVET subsector offers programmes that target those students who do not progress to higher levels of formal education. In this way, they too can acquire skills and competencies for engagement in wage employment or self-employment.

Onsomu et al. (2009) contend that given these challenges, improvements in planning, financing, proper utilization of resources and delivery of TIVET programmes in Kenya are necessary. These improvements can be accomplished in ways that increase capacity, enhance quality and relevance, upgrade learning and teaching facilities and modernize the training and learning environment in TIVET institutions. The government in a bid to improve the utilization of resources in the public sector introduced the performance contracting strategy in 2004 (Obong'o, 2009). Onsomu *et al.* (2009) opine that Kenya's TIVET system needs to be reformed in order to bring about professionalism amongst TIVET staff and engineer sound resource utilization mechanisms.

There have been mixed reports about the success of performance contracting in improving service delivery and resource utilization in Kenya. While some reports indicate that the process has been successful, others indicate the opposite. Barasa (2008), for example, observes that the introduction of performance contracts has evidently led to greater accountability in management of public resources and service delivery. The Task Force Report (2012) on the other hand reported from findings of the performance results announced yearly since they did not relate to service delivery.

Statement of the problem

The introduction of performance contracting in Kenya was aimed at among other things to bring about a radical transformation in resource utilization in public institutions. That was in turn intended to lead to improvement in public servants' performance. Various reports about performance contracting in the public sector however indicated that such a paradigm shift had not been realized (Republic of Kenya, 2010; Barasa, 2008).The reports that had come out were about how the public institutions had achieved their targets and their rankings thereafter. It had however not been established whether the reports were just paperwork or there was actual impact on the ground that met the original goals of performance contracting, that is, improved resource utilization, improved performance and self-reliance. Given the importance of the TIVET sub-sector as shown in the background of the study and the call for reforms in its management, it was prudent to find out whether the performance contracting strategy had served to re-invigorate it as required. This study therefore endeavored to determine how tutors in technical institutes in Kenya perceived performance contracts' impact on teaching and learning resources' utilization.

Objective of the study

The study attempted to provide answers to the objective:

-to find out tutors' perceptions about performance contracts' impact on teaching/learning materials' utilization.

EXISTING LITERATURE AND RESEARCH

Introduction

In this section a review of the literature regarding tutors' perceptions about performance contract impact on teaching/learning materials utilization is presented under the theme:

"Performance Contracting and Utilization of Teaching/ Learning Material"

The performance contracting strategy, according to Kobia and Mohammed (2006), was aimed at radically changing the management practices in public institutions. The radical change in management practices was hoped to

lead to improvement in performance, increased transparency and resource utilization. Such a strategy would therefore augment greatly the government's efforts in reforming the Technical, Industrial, Vocational Education and Training (TIVET) sector. In order to find out whether the reform efforts of the TIVET sector have so far worked, it was important to gauge employees' attitudes. This is because as Othman and Melissa (2007) observe, not much information is readily available with regards to the perceptions of employees, academicians and non-academicians on the implementation of new management practices in education institutions. Understanding employees' attitudes towards implementation of new management practices would be able to facilitate smooth adoption of the same since human resources are the most valuable assets held by any higher learning institution. Priority therefore according to Othman and Melissa (2007) should be given to the gauging of their perceptions towards the changes in management adopted by the institutions.

Kenya's Vision 2030 and the Sessional Paper No.1 of 2005 on Education and Training Policy Framework identify skills and competencies required by Kenya in this quest to accelerate and sustain economic growth for better quality of life (Onsomu *et al.*, 2009). According to Republic of Kenya (2008), the government considers investment in Technical, Industrial, Vocational Education and Training (TIVET) as a way of reducing unemployment and poverty. Katelaar (2007) notes that for performance contracting to succeed there must be efficiency in resource utilization. According to Abdulkaram et al. (2011) all educational resources are vital to the achievement of national objectives. Afolabi (2005) cited in Abdulkaram et al. (2011) observes that no matter how beautiful the programmes and assets of an institution are, without the academic staff, attainment of institutional goals and objectives would prove abortive. This is because human resources are the people who constitute the workforce in an organization. Their availability and utilization therefore would determine the success or failure of the education system.

Hooker et al. (2011) however note that for many years the planning, financing and delivery of Technical, industrial, vocational education and training (TIVET) programmes in Kenya has been a source of concern. Onsomu et al. (2009) also observe that despite past investments in Kenya's Technical, industrial, vocational education and training (TIVET) subsector many school leavers fail to access Technical, industrial, vocational education and training (TIVET) or if they do, acquire low quality training and the skills acquired fail to facilitate them from becoming self-reliant and productive in the absence of wage employment. According to Kimenyi et al. (2006) the TIVET subsector in Kenya currently faces a number of challenges. These include fragmentation of programmes, limited integration into the formal education system, insufficient finances and limited alignment with technological innovation. The Republic of Kenya (2008) report also notes that the Technical, industrial, vocational education and training (TIVET) subsector faces challenges brought about by globalization and associated technological change. In addition poor coordination of TIVET leads to wastage of resources, irrelevant training and turnover of personnel.

The government in recognition of this, in Vision 2030 (Republic of Kenya, 2008) proposes that to meet the skill needs of a rapidly industrializing economy, new technical training institutions should be established. The blue print suggests that the government commits more resources to scientific research, technical capacities of the workforce and in partnership with the private sector increase funding to TIVET institutions. Given the potential of economic benefits from investment in training, it is not surprising that TIVET is being given increased attention in Africa (Onsomu et al., 2009). The Government of Kenya is committed to reforming the TIVET sector so as to ensure the programmes offered are relevant and there is adequate supply of critical skills and competencies for local and global labor markets as identified in the Kenya Vision 2030 (Republic of Kenya, 2008). Onsomu et al (2009) however note that those reforms have not borne fruit. They call for radical changes to be instituted to ensure that there is a complete reform of the TIVET sector.

Every organization aims at achieving specific goals and objectives. To accomplish these objectives, tasks must be provided and utilized properly (Akinfolarin et al., 2012). Factors that are responsible for the poor learning outcomes of students in vocational and technical institutions vary. They include inappropriate planning, insufficiency of qualified vocational educators in the field and insufficient material resources for training (Ayeni, 2005). Runyan and Carter (2005) point out in their study of components of school capacity that a school's ability to undertake significant school improvement work is closely bound to its teachers' attitudes, perceptions and expectations. The study found out that the school capacity for improvement can be supported by coherent structures, constructive teacher and leadership practices and positive staff perceptions of their students.

Resource management in this context means effectively and efficiently utilizing institutional resources to accomplish goals. A study by Parnell and Carraher (2001) that investigated the link between effective resource utilization and performance concluded that there was a positive relationship between the two. The study also noted that the appropriate strategy should be aligned with specific resource competencies if the strategy is to be successful. Eghosa (2011) also concluded in his study that although the library contributes a lot to the teaching and learning

process, in most institutions it was not well equipped. In many other institutions there were no libraries at all. A study by Kobia and Mohammed (2006) found out that most employees failed to achieve their targets due to lack of adequate resources. In other instances, resources were not released in time thus affecting performance. Resources are very important in ensuring that the intended objectives are achieved. Their stability and availability is vital for the success of performance contracting and therefore top leadership must ensure that necessary resources are available all the time (Sean, 2009; Greilling, 2006).

On the same note a Taskforce Report (2012) on the education in Kenya found that there were a lot of un-utilized machines in some technical institutions. TIVET curriculum development was underfunded and had not received input from employers. It also found out that high costs of training materials and text books, inadequate physical facilities and insufficient modern equipment in most TIVET institutions had adversely affected the curriculum implementation. In some institutions, some machines were obsolete compared to what was in the market currently. The taskforce pointed out that TIVET is mainly funded through public spending which had not been adequate. Unit costs for TIVET are high due to the low student- teacher ratio; expensive training equipment and costly training material.

A study by Olufunke (2012) that looked at the effect of availability and utilization of physics laboratory equipment on students' achievement made several conclusions. It for example concluded that more often than not, unavailability or inadequacy of suitable teaching facilities is blamed for the poor performance in institutions. The Commission of Higher Education of Philadelphia (2006) in a baseline study recommended that in order to meet the requisite standards, institutions will be called upon to commit resources to the tasks of research and analysis, particularly as related to assessment and improvement of teaching and learning. The study also found out that an institution usually conducts ongoing planning and resource allocation based on its mission and goals, develops objectives to achieve them and utilizes the results of its assessment activities for institutional renewal. The implementation and subsequent evaluation of the success of the strategic plan and resource allocation supports the development and change necessary to improve and maintain institutional quality.

A study by Umunadi (2009) noted that teachers' utilization of relevant equipment, materials and tools in teaching facilitates learning and enhances students' achievement. Umunadi (2009) also asserts that the realization of the objectives of technical colleges' academic programmes and their ability to improve students' achievement depends on a number of factors. These include the availability of equipment, tools and materials and adequate supply of technical education teachers and the proper implementation and usage of technical equipment, tools and materials.

Ngware and Nafukho (2011) on the other hand observe that technical training is very expensive in Kenya. This is because all the equipment for teaching and learning must be imported using scarce foreign exchange reserves. The study also found out that the three educational systems of primary, secondary and tertiary levels in Kenya are increasingly faced with resource scarcity and increasing unit costs. This therefore called for managers in public technical institutes to be interested in the combination of inputs and outputs that produce the maximum output at the least cost. In each society; there are facilities other than classrooms that can contribute in no small measure to the teaching and learning process (Adeoye and Popoola, 2011). For learning to take place, learners must have access to necessary information materials and resources (Popoola and Haliso, 2009).

Abagi (2001) argues that with the economic and social hardships confronting the country, it was important that the available economic resources at all levels of education were efficiently used and well managed. Onsomu et al. (2009) in their study observed that the TIVET sub-sector faces challenges brought about by globalization and associated technological change. In addition, poor coordination of TIVET leads to wastage of resources, irrelevant training and turnover of personnel. A study by Nyerere (2009) on the TIVET sector in Kenya revealed that recurrent budget reductions had negatively affected the number of qualifications due to inadequacy of teaching resources. Sife et al. (2007) observe that the effective use of technology requires a revolution in thinking about teaching and learning. Part of that revolution necessitates restructuring universities and colleges; that is, changing the way higher education institutions are planned, managed and organized. Their study recommended that training and workshops are needed not only to improve the skills of instructors but also as a means of getting them involved in the process of implementing and integrating Information Communication Technology (ICT) in teaching and learning.

Oghuvbu (2011) conducted a study that looked at the relationship between educational resources and students' academic performance. The study concluded that teachers' qualification and adequate facilities were determinants of assessing academic performance of students. A study by Nwangu (1997; Cited in Oghuvbu, 2011) also found out that teaching materials and learning activities resulted in effective teaching and improved academic performance. The study observed that, for effective educational management, facilities help the school to determine the number of pupils to be accommodated, number of teachers and non-teaching personnel to be employed and the cost determination for

the efficient management of the system.

The school environment affects academic achievements of pupils (Olutola, 2000). The study by Olutola (2000) also revealed that facilities such as desks, seats, chalkboard, teaching aids and cupboards are ingredients for effective teaching and learning. The study concluded that the inadequate utilization of available human and material resources in educational institutions could result in poor instruction quality. Uguru and Abdulla (2007) in their study agree that the goal of functional education is to prepare its beneficiaries with all it takes to adjust well in the societies, contribute meaningfully to the development of the society and as well as live a fulfilled life. In their study they also stressed that all these are possible through effective combination and utilization of different resources employed in the training of the educational enterprises.

The availability and adequacy of resources in an organization go a long way in achieving specific goals and objectives (Akinfolarin et al., 2012). The study acknowledged that the utilization of these resources is also very important. This is because resources contribute a major strategic factor in organizational functioning. Such resources include raw materials to produce goods, buildings to house operations and financial resources to fund their activities. Another study by Rap and Kauffman (2005) found out that performance contracting cannot be successfully implemented without requisite resources. Ngware and Nafukho (2011) on the other hand observe that technical training is very expensive in Kenya. This is because all the equipment for teaching and learning must be imported using scarce foreign exchange reserves. The study also found out that the three educational systems of primary, secondary and tertiary levels in Kenya are increasingly faced with resource scarcity and increasing unit costs. This therefore called for managers in public technical institutes to be interested in the combination of inputs and outputs that produce the maximum output at the least cost. In each society, there are facilities other than classrooms that can contribute in no small measure to the teaching and learning process (Adeoye and Popoola, 2011). For learning to take place, learners must have access to necessary information materials and resources (Popoola and Haliso, 2009).

Teachers need various kinds of information for teaching and research for the purpose of imparting knowledge in students and self-development. The teaching and learning resources include recommended textbooks, books to support class texts, journals, past examination papers and reference books (Apoliade, 2004). School facilities have been found to be a potent factor to quantitative and quality education (Yara and Otieno, 2010). The importance to teaching and learning of the provision of adequate instructional facilitates for education cannot be over emphasized. This is because facilities constitute a strategic factor in education institutional functioning. They determine to a large extent the smooth functioning of any social organization or system including education.

When facilities are provided to meet relative needs of a school system, students will not only have access to the reference materials mentioned by the teacher, but individual students will also learn at their own paces (Owoeye and Yara, 2011). There is evidence also that classrooms, laboratories and text books/ student ratios could be used to predict academic performance (Yara and Otieno, 2010). This is also collaborated by findings of a study by Moochi (2012). The study found that the cost of teaching/ learning resources was a major limiting factor in availing resources. Lack of preparation materials was the major problem teachers experienced in improvising teaching resources. The study recommended that available resources should be properly utilized.

RESEARCH DESIGN AND METHODOLOGY

This study adopted a mixed methods (qualitative and quantitative) approach. The adoption of both approaches enabled the researcher to exploit the strengths of both while minimizing weaknesses from either. The use of more than one approach enhances confidence in the ensuing findings as it reduces the limitations associated with either research approach (Manion and Cohen, 2011).

The descriptive survey strategy was adopted for this study. This approach enabled the researcher to establish the feelings, opinions and perceptions of tutors in technical training Institutes about performance contracting and its impact on teaching/learning resources' utilization. It also helped in getting their opinions about other components like performance assessment, performance targets and performance rewards. That enabled the researcher to find out the impact performance contracts had on resource utilization.

Target population

The target population was 17 public technical training institutes in Kenya. It also included members of the teaching staff of the technical training Institutes in Kenya. Principals of the same institutes, their deputies and heads of department were also part of the target population.

Sample size

The following formula as given by Neuman (2011) was used to determine the sample size;

$$S = \frac{N(Cv2)}{Cv^2 + (N-1)\,e^2}$$

S = the desired sample size when the population is less than 10,000.
N = the population
Cv = Tolerance at desired level of confidence (0.05 at 95% confidence Level).

Sampling techniques

The study adopted the simple random sampling technique to select five technical training institutes in Kenya. It then adopted the stratified random sampling technique to group the tutors into strata according to the available departments. Thereafter the proportionate random sampling technique was used to get an equal proportion of respondents from each stratum. After deciding on the sample for each department the simple random sampling technique was applied to pick the respondents. The saturated sampling technique was used in getting a sample from the principals and heads of department. That meant that all heads of department and all principals in the sampled technical training institutes made the study sample.

Instrumentation

Questionnaires were used to collect data from tutors and heads of department, while interviews were used to collect data from the principals.

Questionnaires

They were used in getting information from tutors and heads of departments in public technical training institutes on their perceptions about performance contract impact on teaching/ learning resources utilization. It was structured in a way that it contained both open and closed ended response items.

Interviews

Interviews were used to seek for information from the principals of the institutes. They sought to find out the views of the principals about performance contract impact on the utilization of teaching/ learning resources. That enabled the researcher to probe for in-depth data since they did not restrict the respondents.

Pilot study

The formulated instruments were subjected to a pilot study in order to enable the researcher to measure their reliability and validity. The pilot study was carried out in two of the public technical Institutes in Kenya. They were however excluded from the final study.

Reliability of the instruments

The instruments were tested for reliability by administering them in a pilot study. The coefficient of internal consistency of the split half reliability method was applied. The questionnaires that were administered to the pilot group had their scores ranked. The scores were divided into two equal sets and each subject's score computed. After dividing the questionnaires into two comparable halves, the Spearman Brown proficiency formula was then applied in testing the results. That resulted into a split half estimate of 0.814. That indicated that the instrument was reliable to be applied in the collection of data for the study (Kirk, 2008; Johnson, 2010).

Validity of the Instruments

The research instruments, that is, the tutors' and heads of department questionnaires and interview schedules were validated through the application of content validity procedures. The researcher established content validity by seeking expert judgment from his supervisors while developing and revising the research instruments. The results from the piloting were also used in determining the validity of the instruments.

FINDINGS

Analysis of quantitative data

The purpose of the study was to establish the perceptions of tutors in technical institutes about performance contracts impact on the utilization of teaching and learning resources. Findings of the data collected during the study are presented here based on the objective of the study. Information on this issue was sought from tutors and heads of department through questionnaires and from principals through interviews.

Perceptions about the impact of PCs on utilization of teaching/learning materials

The respondents (heads of department and tutors) were asked to rate the impact of PCs on the utilization of teaching/learning materials.

HoDs' responses on perceptions of PCs' impact on utilization of T/L materials

Figure 1 presents findings based on the heads of departments' responses and disparities in the variables regarding utilization of T/L materials.

Referring to Figure 1 the performance contracts had the greatest impact on better use of library facilities (67%) and better inventory control of the teaching and learning materials (54%). Otherwise, performance contracts had little impact on adequacy of teaching and learning materials, use of latest materials as well as use of ICT and improving procurement of teaching and learning materials as shown by 53% of the heads of department who disagreed.

Tutors' views on perceptions on PCs' impact on utilization of T/L materials

The tutors were also asked to indicate their perception of the impact of PCs on utilization of teaching and learning materials. Figure 2 shows the findings.

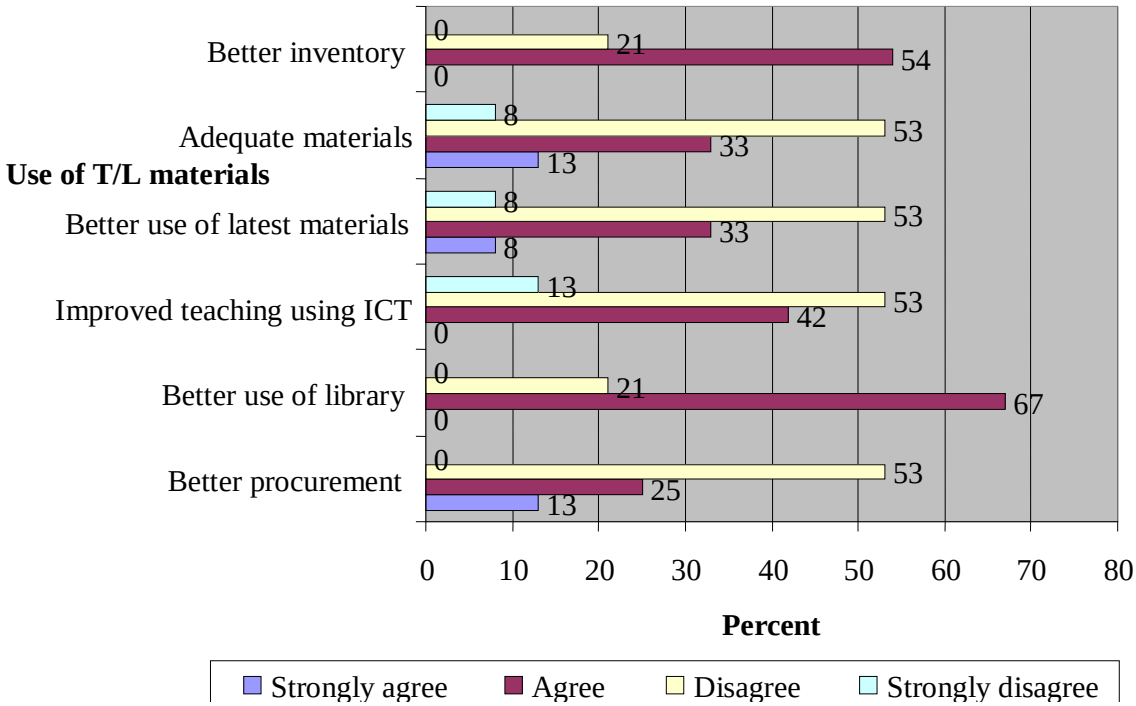

Figure 1. HoDs' rating of staff perception of utilization of T/L Materials due to PCs.

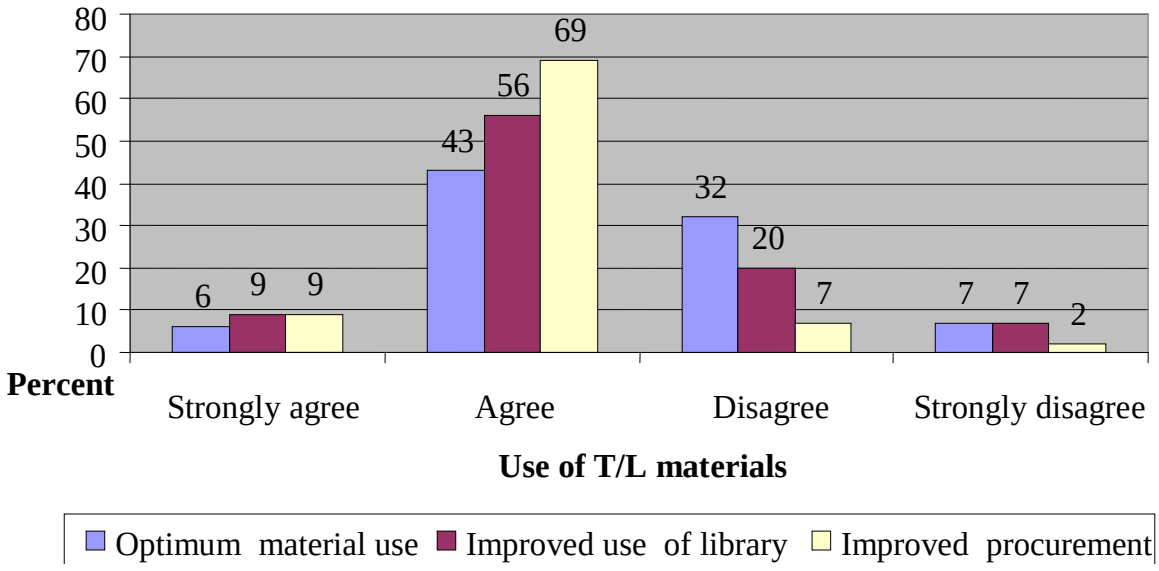

Figure 2. Tutors' perception of the use of T/L materials due to PCs.

Figure 2 shows that PCs had the greatest impact on improving procurement of teaching and learning materials (69%), followed by use of library facilities (56%) and optimum use of materials (43%). The findings show that the PCs had an impact of varying magnitudes on the use of teaching and learning materials. The result from tutors' responses for example indicated that performance contracting had increased access of computers and e-

learning to tutors and other members of staff. The impact was not however felt greatly due to inadequacy of the said resources.

Analysis of qualitative data

Findings from the principals' responses and those from the open ended sections of the heads of department and tutors questionnaire are presented here. The principals' responses indicated that performance contracting had greatly changed the face of technical institutes. This was witnessed by the fact that there was enhanced utilization of available resources and inclusion of areas that were hitherto not in the scope of the institutes' educational coverage. This was indicated by all the 3 principals who said that areas like environmental conservation were before the advent of performance contracting not taken seriously yet now they were being addressed appropriately.

This was as a result of increase in the utilization of existing space to plant more trees and clean up unwanted materials in the institutes. Extra time was being utilized to teach both staff and students on proper sexual behavior in order to reduce the prevalence of HIV infections. The principals however pointed out that proper utilization of learning and teaching resources was hindered by a scarcity of financial resources. The lack of finances made some resources not to be availed hence hindering the impact of performance contracting on the ground.

Findings from tutors, heads of department and principals indicated that aspects of performance contracting that included service charters; mission and vision statements and quality policies had led to improved utilization of learning and teaching resources. According to the tutors, performance contracting had led to some improvement in the utilization of learning and teaching resources. They however pointed out that more needed to be done to make the strategy have more impact on resource utilization. They pointed out that some of the areas that needed to be addressed included, training of supervisors on better approaches to implementing the strategy and availing of adequate human resources. Some of the hindrances to the effective utilization of resources they indicated included staff apprehension about performance contracting. This affected the way they used the performing contracting strategy in utilizing available resources.

Some tutors however pointed out that there was no much change on the ground as far as learning and teaching resources were being utilized. They indicated that the strategy was hampered by too much paper work and lack of enough training in resource utilization for its impact to be strongly felt on the ground. The tutors also felt that the failure to meet the set targets should not be the only yardstick for measuring proper utilization of resources and hence the success of performance contracting.

The responses by heads of department indicated that performance contracting as a strategy had generally led to improvement in the utilization of resources. Some of the areas that had improved due to performance contracting included access to e-learning resources and computer usage. The heads of department however indicated that the utilization of resources was hindered by the fact that the tutors were not properly prepared to implement the performance contracting strategy. That had in turn made them not to appreciate the strategy positively. The lack of adequate financial resources also hindered the proper utilization of resources to be achieved. Internet connectivity for example required a lot of financial resources to be properly utilized. Most technical institutes according to the heads of department were not endowed with adequate financial resources.

Hypothesis testing

The study measured the perceptions of the teaching staff in the institutes about the impact of performance contracts on the utilization of teaching/learning resources (T/L). Chi-Square (χ^2) tests were conducted to determine if there were significant associations between the perceived impact of performance contracts and the utilization of teaching/learning (T/L) resources. The hypothesis that was tested stated as follows:

H_{01}: There is no significant relationship between performance contracting and optimum utilization of T/L resources.

According to the chi-square test scores in Table 1, $P<0.05$. The implication of this is that the null hypothesis is rejected. The alternate hypothesis that there is a significant relationship between performance contracting and utilization of resources is therefore adopted. This implies that there is a significant relationship between performance contracting and optimum utilization of T/L resources. The heads of department perceived the performance contracts to have a significant impact on improving the utilization of available teaching/ learning resources.

The perceptions of the tutors about the impact of performance contracts on the utilization of teaching/ learning resources were also measured. Chi-Square (χ^2) tests were therefore conducted to determine if there were significant associations between the perceived impact of performance contracts and the utilization of teaching/ learning (T/L) resources. Before the Chi-square test, the variables were tested for reliability using the Cronbach

Table 1. Results of χ2 test scores of PCs and optimum utilization of T/L resources.

Resource Type	Indicators of PCs Impact	Chi Square	Df	Asymp. Sig.
Utilization of T/L Materials	Optimum use of T/L resources	28.593	4	0.000

Table 2. Results of χ^2 test scores of tutors' perceptions on performance contracting and optimum utilization of T/L resources.

Resource type	Indicators of PCs impact	Chi square	Df	Asymp. Sig.
Utilization of T/L Materials	Better utilization of T/L resources	3.333	4	0.004

Alpha test. The results revealed a coefficient of 0.730 which was considered strong enough for the Chi-square to be applied. The formulated hypothesis that was tested on this was stated as follows:

H_{02}: There is no significant relationship between performance contracting and optimum utilization of teaching/learning resources.

Table 2 shows the χ^2 scores for the tutors' responses, tested at $p < 0.05$ level of significance.
Referring to Table 2, the χ^2 test scores reveal that $P \geq 0.05$. The null hypothesis is therefore not rejected. According to these results therefore the tutors felt that performance contracting had not led to better utilization of teaching and learning resources. Based on these results and those indicated in Table 2 it can be inferred that the introduction of performance contracts in the institutes had a mixed impact on the utilization of the resources whereby the impact was significant in the utilization of some resources while for others it was felt but was not significant. According to the results in Table 1, the heads of department felt there was some association between performance contracts and better utilization of teaching/ learning resources while those in Table 2 indicate the opposite. This is an indication of the differences in the perceptions of heads of department and tutors on the impact of performance contracts on the utilization of teaching and learning resources.

DISCUSSION OF THE FINDINGS

The findings indicate a general improvement in the utilization of available teaching and learning resources. The improvement though not radical had led to change in the way resources were being utilized compared to the era before the advent of performance contracting. These findings are in agreement with those of the study by Ngware and Nafukho (2011) which had found out that institutions usually conducted ongoing planning and resource allocation based on their missions and goals, developed objectives to achieve them and utilized the results of the assessment activities for institutional renewal.

According to the findings of a study by Parnell and Carraher (2001) there is a positive relationship between performance and effective teaching and learning resources' utilization. The study recommended appropriate strategy be aligned with specific resource competencies if the strategy is to be successful. In this regard, there is need to avail adequate learning and teaching resources if the impact of the performance contracting strategy is to achieve the expected impact.

Various studies have underscored the importance of learning/teaching resources in realizing the objectives of a learning institution. The study by Umunadi (2009) noted that teacher utilization of relevant equipment, materials and tools in teaching facilitates learning and enhances students' achievement. Umunadi (2009) also asserts that the realization of the objectives of technical colleges' academic programmes and their ability to improve students' achievement depends on a number of factors. These include the availability of equipment, tools and materials and adequate supply of technical education teachers and the proper implementation and usage of technical equipment, tools and materials.

The result from tutors' responses for example indicated that performance contracting had increased access of computers and e-learning to tutors and other members of staff. The impact was not however felt greatly due to inadequacy of the said resources. This finding is in agreement with that of the study by Sife et al. (2007) which had found that the effective use of technology requires a revolution in thinking about teaching and learning. Part of that revolution required that higher education institutions organize training in order to improve the skills of instructors and also as a means of getting them involved in the process of implementing and integrating ICTs in teaching and learning.

Findings from tutors, heads of department and principals indicated that aspects of performance contracting that included service charters; mission and vision statements and quality policies had led to improved utilization of learning and teaching resources. The findings also indicated that financial constraints made teaching/learning resources not to be put into proper utilization. That came about in the sense that required resources could not be availed hence hindering performance. According to the findings of a study by Parnell and Carraher (2001), there is a positive relationship between performance and effective resource utilization. The study recommended appropriate strategy be aligned with specific resource competencies if the strategy is to be successful. In this regard, there is need to avail adequate teaching/learning resources if the impact of the performance contracting strategy is to achieve the expected impact. The findings of the study by Nyerere (2009) on the TIVET sector in Kenya had also revealed that recurrent budget reductions had negatively affected the number of qualifications due to inadequacy of teaching/learning resources. Another study by Onsomu et al. (2009) also noted that the TIVET sub-sector faces challenges brought about by globalization and associated technological change. In addition poor coordination of TIVET leads to wastage of resources, irrelevant training and turnover of personnel.

CONCLUSION AND RECOMMENDATIONS OF THE STUDY

Conclusion

This study made conclusions based on the study findings. The study concluded that there was improved utilization of learning and teaching materials. The same were however not adequate and were not availed immediately they were required. This hindered the tutors from realizing their performance objectives as well as de-motivating them by creating feelings of apathy in them.

There was need for tutors to be continually trained not only in their areas of specialization but in ICT applications in regard to the ever changing technology. Although such were planned for, they were however not realized due to lack of funds. This study concluded that financial constraints hindered tutors from being trained on the utilization of modern learning and teaching resources. Such included the use of power point projectors and related appliances, use of modern complicated machinery, internet and on line learning applications.

Recommendations

Based on the findings and conclusions of the study, the following recommendations were made:

(a) The gains made in the implementation of the performance contracting strategy should be strengthened with the availing of more financial resources to ensure that the required learning, teaching and physical resources are all made available.
(b) The over emphasizing of evaluation of performance targets should be reduced so that there is less paper work in the implementation of the performance contracts and more concrete service delivery on the ground.
(c) Tutors need to be involved in every step of performance contracting fully. Performance should be made effective by engaging teaching staff to different sections of performance contracting and encouraging the committees by even appreciating and giving awards. Tutors should be fully involved in setting targets and the evaluation of performance targets.

Conflict of Interests

The authors have not declared any conflict of interests.

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