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Original Research Article

Performance contracts' impact on the utilization of physical resources in Technical Institutes in Kenya

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Abstract

The government of Kenya introduced performance contract signing in the year 2004. The performance contracts were aimed at improving resource utilization in public institutions. This study sought to establish the perceptions of tutors in selected Technical Institutes in Kenya about the impact of performance contracts on the utilization of physical resources. The study adopted a descriptive survey strategy with a mixed methods approach. The study population comprised of 565 tutors, 31 Heads of Department and 5 Principals of the selected Technical Institutes. The stratified and proportionate sampling techniques were applied in the selection of the study sample. Questionnaires and interviews were used to collect data. The data collected were analyzed by use of descriptive and inferential statistics. The results were presented in frequencies, percentages, tables and charts. The findings of the study revealed that members of staff were not adequately trained on the proper utilization of physical facilities. The study recommends that more financial resources be availed to enable proper training of staff on the optimum utilization of physical resources. The findings would help education policy makers to address the issue of performance contracting from an informed position.

Keywords: Management, Performance contracting, Physical resources, Technical institutes, Tutors, Utilization

INTRODUCTION

The use of performance contracts has been acclaimed as an effective and promising means of improving the performance of public enterprises as well as government departments (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 have been 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 Obongo (2009), Kobia and Mohammed (2006) governments all over the world look at performance contracting as an important means for articulating clearer definitions of objectives and supporting new management, monitoring and control methods, while at the same time leaving day- to – day management to the managers themselves. It organizes and divides tasks so that management can perform them systematically, purposefully and with reasonable probability of achievement.

The objectives of introducing performance contracts in Kenya were to improve service delivery to the public by ensuring that resources are focused on the attainment of key national policy priorities among other objectives (Kobia and Mohamed, 2006). Over the years, the Kenyan government implemented various strategies to address public service performance challenges. Strategies tried include structural adjustments, privatization and commercialization, contracting out, new budgeting and

planning systems (Trivedi, 2009). Even after implementing these strategies, the performance of the public did not improve (Performance Steering Committee, 2005; Langat, 2006). The Kenya government subsequently changed tact and in the Economic Renewal strategy it decided that the performance contracting process be adopted as a management tool in the management of public resources (Trivedi, 2009). Vocational and technical education and training were among the public institutions that were targeted in this programme. This is because vocational and technical education and training institutions are crucial for a country's sustainable human capital and economic development. In Africa there is fresh awareness among policy makers and the international donor community that technical innovation and vocational education and training (TIVET) can play a critical role in national development (African Union, 2007).

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, Wambugu and Wamalwa, 2009). According to GoK (2008) the government of Kenya considers investment in TIVET a way of reducing unemployment and poverty. In addition Kenya is working towards becoming a middle income economy and eventually industrialized by implementing Vision 2030.

The TIVET subsector is critical to the development of industry and required human capacities (Hooker, Mwiyeria, Ocharo and Clark, 2011). High quality training services must therefore be delivered by the subsector to enhance productivity and required competencies. Good and competitive 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. Hooker *et al* (2011) however note that for many years the planning, financing and delivery of TIVET programmes in Kenya has been a source of concern. Onsomu *et al* (2009) also observe that despite past investments in Kenya's TIVET subsector many school leavers fail to access 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.

Kimenyi, Mwabu and Manda (2006) observe that 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 GoK (2OO5a) report also notes that the 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. 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. Onsomu *et al.* (2009) opine that Kenya's TIVET system needs to be transformed in order to bring about professionalism amongst TIVET staff and engineer sound resource utilization mechanisms.

According to Abdulkaram, Fassas and Akinubi (2011) all educational resources are vital to the achievement of national objectives. Afolabi (2005) 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. Okwori (2006) argues that people, knowledge skills and attitudes in them constitute resources. Expertise in technical, mechanical, managerial and other areas potentially available for the utilization in social and economic institutions constitute human resources. This is because the personnel within an institution and their capabilities in contributing to productivity and achievement of institutional objectives are referred to as human resources. Their availability and utilization therefore would determine the success or failure of the education system.

The government in recognition of this, in Vision 2030 (Government 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, improve 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 (GOK, 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.

In order to find out whether the reform efforts of the

TIVET sector have so far worked, it is 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.

There have been mixed reports about the success of performance contracting in improving service delivery and resource utilization in Kenya. Manduku (2012) for example points out that the implementation of the process of performance contracting in Kenya began in 2004 and was faced with several difficulties such as resentment by the unions and the unwillingness of civil service employees to sign performance contracts. The real impact of the process is yet to be fully visible. While some reports indicate that the process has been successful, others indicate the opposite. According to Obongo (2009) the general public and even some high ranking public servants may very much welcome the idea of performance contracting and measuring performance, but it might not be readily accepted by everybody.

There is a lot of resistance especially from those who feel exposed negatively in terms of poor performance by the outcomes. Barasa (2008) on the other hand observes that the introduction of performance contracts has evidently led to greater accountability in management of public resources and service delivery. The Government of Kenya (GOK, 2010) however reported from findings of a study that the public was not fully satisfied with the performance results announced yearly since they did not relate to service delivery.

Statement of the Problem

Performance contracts have been globally adopted. 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 (Barasa, 2008; POE, 2010).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.

In the past the government of Kenya had invested a lot in the TIVET sub-sector. The efforts had however not borne fruit due to resource wastages and management inefficiencies. It is known that perceptions of staff in any organization are the ones that drive or motivate workers to achieve the goals of the organization (Emery, 2008; Mueller, 2006). While there is extensive research regarding performance contracts management in the private sector work places, the empirical evidence as to the effectiveness of performance contracts in academic institutions are limited (Morris, 2005, cited in Manduku, 2012). This is particularly more pronounced when it comes to TIVET institutions where there is a paucity of studies concerning improved utilization of physical resources as a result of the introduction of new performance management strategies. This study therefore sought to establish whether tutors in technical institutes in Kenya perceived performance contracts' to have radically changed the way physical resources were being utilized.

Purpose of the Study

The purpose of the study was to establish the perceptions of tutors in technical institutes about performance contracts and their impact on physical resources' utilization. This is in the background of the fact that although in the past the government had invested heavily in the TIVET sub-sector there had been no tangible results to indicate the same. Hence the need to find out how tutors perceived PCs' impact on physical resources' utilization.

Objective of the Study

The study was guided by the following specific objective: *"To identify the perceptions of tutors about performance contracts' impact on physical resources' utilization."*

Research Hypothesis

The hypothesis of this study was stated in null form and symbolized as 'H_o'. The hypothesis was generated from the study objective. It was stated as follows:
H_0: There is no significant relationship between performance contracting and optimum utilization of physical resources.

Limitations of the Study

The study was carried out on tutors and principals of

selected technical institutes in Kenya. It is possible that if carried out in different locations with different target populations the findings might not be the same. This therefore means that the findings of this study might not be generalized to different people or locations. The technical institutes covered in this study are set in diverse locations in Kenya. They face various environmental, structural as well as unique differences that might have influenced the adoption of performance contracting.

Existing Literature and Research

The attainment of educational objectives through the teaching/learning process is more dependent on how educational institutions are capable of managing and utilizing their material resources effectively and efficiently (Biruk, 2008).Educational materials are scarce and costly resources hence knowledge of how they are managed and utilized in the educational system is very important. According to Sife, Lwoga and Sanga (2007) quality, relevance and access to education can be attained if educational materials are properly managed and utilized.

Availability and adequacy of resources in an organization go a long way in achieving specific goals and objectives. The utilization of these resources is also very germane (Akinfolarin, Ajayi and Oloruntegbe, 2012; Ayeni, 2005). These resources constitute a major strategic factor in organizational functioning. Uguru and Abdullahi (2007) in support of this assertion also point out that managers work with many resources in their organizations. They use the resources to accomplish goals. Such include raw materials to produce goods and buildings to house operations.

Educational institutions cannot operate effectively without certain factors being in place. Indeed quality cannot be attained without adequate physical facilities such as library buildings. Laboratories and workshops are a must if an educational institution has to run effectively (Akinfolarin *et al*, 2012). This is because as Eghosa (2011) and Ayeni (2005) postulate, every organization aims at achieving specific goals and objectives. To accomplish these objectives tasks must be identified, tools and other resources must be provided and utilized appropriately. For educational objectives to be met, effective combination and utilization of different resources must be employed in the running of educational enterprises (Uguru and Abdullahi, 2007).

Efforts at resource utilization involve investments in human capital, institution building and process improvement (Amoako, 2005). The broad objectives of the various initiatives should be the development of human and material resources to analyze, plan, implement and monitor programs which have a positive impact on national development. A study by Ibukun, Akinfolarin and Alimi (2011) investigated resource utilization in vocational and technical education as a correlate of student learning outcomes in selected colleges of education in Nigeria. The study revealed that most of the physical resources were well utilized. It also found significant relationship between time, space and physical resource utilization and perceived students learning outcomes. It however noted that there was inadequate funding for vocational and technical education which usually led to insufficient material resources for training.

One of the issues of great controversy among educators in tertiary institutions today is the issue of the poor state of equipment and facilities (Umunadi, 2011). It is highly believed by some that it is the manner of utilization of the available equipment and facilities that leads to that situation while others argue that it is the inadequacy in the provision of the required material resources that is to blame. The factors responsible for poor learning outcomes of students in vocational and technical education institutions are identified by Ayeni (2005) in his study. These include: inappropriate planning of educational programs, insufficiency of qualified vocational educators in the field, insufficient material resources for training, lack of recognition and encouragement of vocational educational graduates and inadequate funding.

Evidence from studies conducted indicates that government educational institutions in most countries are not well funded (Eghosa, 2011; Ayres and Warr, 2002). Although it is evident that physical resources have been and still remain a major factor of production, most public learning institutions still lack adequacy in this regard. As a result, the population in these institutions is over bearing on the administrators, infrastructures are overstretched while most governments are lackadaisical about funding them (Eghosa, 2011; Adesola, 2005).

In agreement with this argument Abagi (2001) adds that the economic and social hardships confronting Kenya by then necessitated the taking of measures to ensure that available resources at all levels of education were efficiently utilized and managed. Abagi (2001) also pointed out that there was evidence that universities and many technical institutes were not able to efficiently make use of existing physical resources. Available agricultural land for example lay idle while students' residential facilities and halls remained unused for months during long holidays.

Gobinath, Rajeshkumar and Mahendran (2010) in their study of environmental performance in education institutions observe that the training institutions are not just bricks and mortar. They are made up of the people using the facilities available. They also observed that the maintenance and resource utilization in the training institutions is usually directly in the hands of the students and staff using the available resources for their day to day operations. Olatun (2012) conducted a study on resource utilization and internal efficiency in Nigerian secondary schools. The findings of the study revealed

that the availability of adequate buildings, laboratories, classrooms, chairs, desks, recreational equipment and other facilities are necessary for attainment of educational objectives. The study noted that the resources constitute a very important factor in the functioning of the educational system or otherwise depend on the man power and materials made available.

Olatun (2012) in his study on relationships among secondary school size, resource utilization and school effectiveness in local government areas, discovered that there is a high relationship between enrolment and the utilization of classrooms provided for teaching and endeavor. The results indicated that, the higher the number of students in the school, the higher the utilization of the physical facilities. The study depicted the relevance of physical resources in meeting the increased demand of school enrolments. The study by Olatun (2012) also found out that the internal efficiency of technical institutions had a positive relationship with the rate of utilization of the available resources vis-à-vis human and physical resources.

The factors responsible for poor learning outcomes of students in vocational and technical education institutions are identified by Ayeni (2005) in his study. These include: inappropriate planning of educational programs, insufficiency of qualified vocational educators in the field, insufficient material resources for training, lack of recognition and encouragement of vocational educational graduates and inadequate funding. Evidence from studies conducted indicates that government educational institutions in most countries are not well funded (Eghosa, 2011; Ayres and Warr, 2002). Although it is evident that physical resources have been and still remain a major factor of production, most public learning institutions still lack adequacy in this regard. Abagi (2001) also pointed out that there was evidence that universities and many technical institutes were not able to efficiently make use of existing physical resources. While these studies have dealt with issue of the importance of physical resources in achieving organizational goals, the present study differs with them since it looks at the issue of performance contracting and how it impacts on the utilization of infrastructural resources in technical training institutes.

SETTING AND METHODOLOGY

Target Population

The target population comprised of 5 principals of the Technical institutes selected for this study, 31 heads of department and 565 tutors. The Technical institutes were selected because they are the majority (21) amongst public TIVET institutions managed by the Ministry of Education (MoE) whereby technical universities are 2, national polytechnics 2, and institutes of science and technology 17and technical teachers' training college 1. The technical institutes are located in diverse places in the Republic of Kenya. Just as they are located in diverse places they also have differences in the way they were started, in their structures and composition of staff and courses offered.

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. The adoption of various sampling techniques was suitable since it catered for the collection of data from different segments of the target population (Kothari, 2004).

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 contracts' impact on physical resources' utilization. It was structured in a way that it contained both open and closed ended response items. The instrument was preferred for data collection because according to Kothari (2004) questionnaires reduce bias associated with interviews as answers are in the respondents' own words. They also enable respondents who are not easily approachable to be reached conveniently.

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 contracts' impact on the utilization of physical resources. That

Table 1. HoDs rating of Tutors' Perceptions of Utilization of Physical Resources due to PCs

	Strongly Agree, f (%)	Agree, f(%)	Not sure, f (%)	Disagree, f (%)	Strongly disagree f (%)
Adequate resources	3(13)	10(42)	3(13)	6(25)	0(0)
Better inventory keeping	3(13)	11(46)	6(25)	2(8)	0(0)
Better use of Resources	2(8)	14(58)	5(21)	2(8)	0(0)
Improved Maintenance	2(8)	14(58)	3(13)	3(13)	0(0)
Cum. total (N=96)	10(10)	49(51)	17(18)	13(14)	0(0)

enabled the researcher to probe for in-depth data since they did not restrict the respondents. They also enabled the researcher to seek for immediate clarification from the respondents.

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.

Data Analysis

Data from interviews and open ended questionnaires constituting qualitative data in form of words and phrases were transcribed and then arranged as per emerging themes. Qualitative data such as opinions were also analyzed or narrated in themes. Information from interviews with the principals, open ended items in the questionnaires was analyzed or narrated in themes. That information enabled the researcher to further understand the views and opinions of the tutors about the impact of performance contracting on physical resources' utilization. Some of the quotations from the principals were reported in verbatim in order to point out the agreements or discrepancies with the findings from questionnaires.

Quantitative data were subjected to descriptive statistics. That produced frequencies and percentages which were then used as tools of analysis. The findings were further presented in tabular and bar graph form. That made it possible to find the sum total of weighting of views and opinions indicated for each alternative in the questionnaires. The researcher used chi-square ($\chi 2$) test of independence as a tool of data analysis. The chi-square test of independence is used to explain whether one or two attributes are associated. This study hypothesized that the variable, physical resources' utilization is/is not related to performance contracting. This test was therefore used to test the stated null hypothesis. The data were analyzed at a level of significance of 95% or alpha=0.05 with differing degrees of freedom depending on individual cases.

FINDINGS

The study objective sought to determine the perceptions of staff towards utilization of physical resources in the advent of PCs. Results of the data collected to answer the stated objective so as to determine how performance contracting had led to radical utilization of physical facilities in technical institutes are presented. Questionnaires were used in collecting data on this issue from tutors and heads of department while interviews were applied in collecting data from principals on the same. This was to determine the perceptions of tutors about performance contracts' radical impact on the utilization of physical resources.

Table 1 presents findings based on HoDs responses.

As indicated in Table 1 the HoDs perceived the PCs to have a greater impact on utilization of physical resources

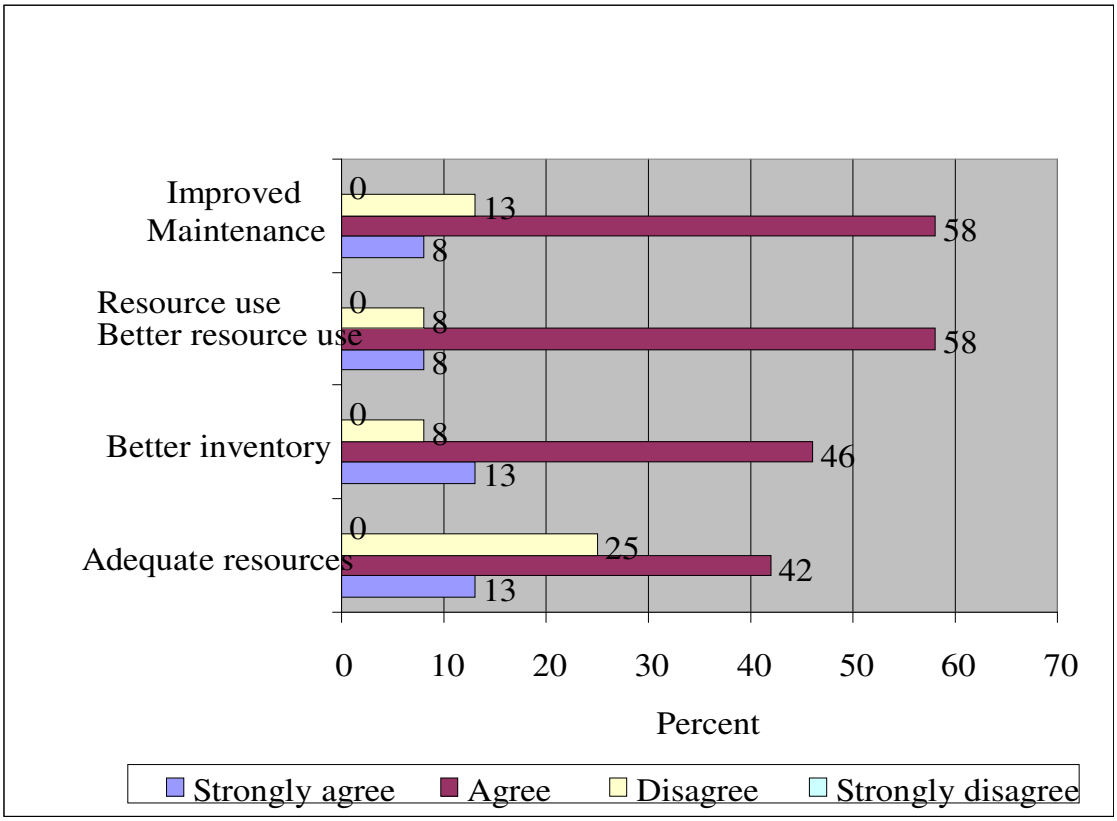

Figure 1. Staff perception of physical resource use due to PCs as rated by HoDs

Table 2. Tutors' self-Perception of Utilization of Physical Resources due to PCs

f	Strongly Agree, f(%)	Agree, f (%)	Not sure, f (%)	Disagree, f (%)	Strongly disagree f (%)
Adequate resources	6(7)	45(57)	11(13)	17(20)	3(4)
Better inventory keeping	6(7)	51(63)	12(15)	9(11)	3(4)
Better use of resources	11(13)	28(46)	18(22)	12(15)	3(4)
Improved maintenance	11(13)	29(35)	23(28)	14(17)	6(7)
Cum.total (N=324)	34(10)	153(47)	64 (20)	52(16)	15(5)

as said by 61% HoDs in overall (10% for strongly agree and 51% for agree) vis-à-vis the 14% for disagree.

The variables/indicators of resource use showed differences among the HoDs perception of the PCs impact. Figure 1 shows the differences.

According to results in figure 1, PCs had an impact on all the indicators of resource use with improved maintenance (58%) and better resource use (58%) bearing the greatest impact and the least being adequate resources at 42%.

Tutors' Views on Perceptions on PCs' Impact on Use of Physical Resources

The tutors were also asked to indicate their perceptions about the impact of PCs on physical Resources' use. Table 2 shows their responses.

According to results in Table 2, a large number of tutors, being 57% overall (10% for strongly agree and 47% for agree), perceived the PCs to have a greater impact on utilization of physical resources compared to the 21% in disagreement, (16 for disagree and 5% for strongly disagree). The variables for indicating the impact of PCs on physical resources were analyzed by use of means and standard deviations. The results revealed that the PCs had an impact of varying magnitudes on each one of them as can be shown in Table 3.

In reference to Table 3, majority of the tutors perceived PCs to have a minimal impact on all the variables as can be shown with most of the responses balancing at undecided, disagree and strongly disagree. It is only the

Table 3. Analysis of Tutors' Responses on Physical Resources' Utilization

	N	Min.	Max.	Mean	Std. Deviation
Has led to improved inventory of physical resources.	54	1	5	2.41	.922
Better utilization of physical facilities.	54	1	5	2.50	1.023
Has led to adequacy of physical Facilities.	54	1	5	2.57	1.021
Has led to improved maintenance of physical facilities.	54	1	5	2.70	1.127
Valid N (listwise)	54				

Table 4. Results of χ^2 tests cores of PCs and utilization of physical resources

Resource Type	Indicators of PCs Impact	Chi Square	Df	Asymp. Sig.
Utilization of Physical Resources	-utilization of physical resources	5.333	4	.255

Table 5. Results of χ^2 tests cores of PCs and improved utilization of physical resources

Resource Type	Indicators of PCs Impact	Chi Square	Df	Asymp. Sig.
Utilization of Physical Resources	-Improved utilization of physical resources.	64.148	4	.000

indicator of PCs having led to improved inventory of physical resources that was positively viewed by a slight majority of the tutors.

Hypothesis Testing

The perceptions of HoDs about performance contracting and the utilization of physical resources were measured. The null hypothesis that was tested to measure the perceptions of HoDs about the impact of performance contracting on the utilization of physical resources was stated as follows:

H_{01}: There is no significant relationship between performance contracting and utilization of physical resources**.**

Table 4 shows the χ^2testscores for the **H_{01}** tested at p <.05 level of significance.

Referring to Table 4, the χ^2 test scores for H_{01} reveal that P ≥ .05. The implication therefore is that the null hypothesis is not rejected. Thus there is no significant relationship between performance contracting and the utilization of physical resources. It is an indication that the two variables are independent of each other as opposed to being dependent.

The perceptions of the tutors about the impact of PCs on the utilization of physical resources were also measured. Hence, Chi-Square (χ^2) tests were conducted to test the hypothesis stated as follows:

H_{02}: There is no significant relationship between performance contracting and improved utilization of physical resources.

The variables were however subjected to Cronbach Alpha test for reliability before applying the Chi-square test. That resulted into .632 coefficients which were regarded as strong enough to allow the Chi-square test to go on. Table 5 shows the χ^2 scores for **H_{02}** tested at p <.05 level of significance.

Table 5 shows the χ^2 test scores which reveal that$P$<.05.That implies therefore that the **H_{02}** is rejected and the alternate, that there is a significant relationship between performance contracting and the utilization of physical resources is adopted. This means therefore that according to the tutors there is a significant relationship between performance contracting and improved utilization of physical resources. While this contradicts the findings in Table 4 where HoDs indicated that there was no association between PCs and infrastructural utilization it could mean that the tutors could have felt that PCs had led to the better utilization of most but not all infrastructural resources. As shown in Table 3 the tutors perceived the PCs to have a significant impact on better use of physical resources that included better inventory keeping and improved maintenance. In regard to the

perceptions of HoDs and tutors, therefore, it can be inferred that the introduction of PCs in the institutes had a mixed impact on the utilization of the physical resources whereby the impact was significant but varied for all the indicators.

Analysis of qualitative data

Interviews were conducted with principals of the selected technical institutes on the issue of utilization of physical resources. The majority were of the opinion that performance contracting had improved the way physical resources were being utilized. They explained that performance contracting had improved the quality of services that were being offered in the institutes. As a result many students had enrolled in the programmes being offered. The effect of the increase in students' enrolment was the requirement that the institutes utilize all available resources to maintain the quality of services offered. The principals were quoted saying that:

There is no doubt that PCs have changed the way physical resources are utilized. Although not in a radical way, still things are not done the way they used to. You can see a person acting in a more responsible manner than before in as far as using the available resources is concerned. We are now even leasing out some of those resources we don't need and that is a source of income to us. We for example hire out our vehicles when students are not using them while our buildings can be hired to the public for functions such as meetings.

The principals also indicated that TTIs were outsourcing some services so that they could earn more finances to cater for the increased number of students. Some of the services they gave included mechanical and electrical engineering works and outside catering services for students taking courses related to that. That had proved to be a source of income for the institutes.

Responses from the open ended section of the Tutor Questionnaires and Heads of Department Questionnaires also revealed that the tutors and HoDs felt there was improvement in the conservation and cleanliness of physical resources as well as inventory of the same. They also indicated that members of staff were not adequately trained on the proper utilization of physical facilities. The tutors indicated that there were times when they failed to properly utilize some machinery due to ignorance on how it was operated. They therefore recommended for improvement in the training of tutors on how to handle and utilize such facilities.

DISCUSSION

According to the findings of Amoako (2005), efforts at resource utilization should involve investment in human capital, institutional building and process improvement. The study by Oyedeji (2000) had earlier given the definition of physical facilities as the essential materials that must be put in place and into consideration for the objectives of the school system to be accomplished. The school plant, Oyedeji (2000) noted can be classified into site; building and equipment which include permanent and semi-permanent structures such as machines, laboratory equipment, the chalk board and tools such as brooms and clearing materials. The study further found out that school buildings had a positive impact on the comfort, safety and academic performance of students.

These findings echo those of various other studies. These include the studies by Uguru and Abdullahi (2007), Nyerere (2009) and Akinfolarin *et al* (2012) that found out that performance management had mixed results in the utilization of resources. Pointing out about the importance of proper utilization of resources for example, Nyerere (2009) noted that the availability and adequacy of resources in an organization go a long way in achieving specific goals and objectives. The utilization of these resources is also very germane (Akinfolarin *et al,* 2012; Ayeni, 2005).

These studies also concluded that proper utilization of resources depended on good performance management as a major strategic factor in organizational functioning. They also pointed out that managers work with many resources in their organizations. They use the resources to accomplish goals. Such include raw materials to produce goods and buildings to house operations. Uguru and Abdullahi (2007) in their study conclude that educational institutions cannot operate effectively without certain factors being in place. Indeed quality cannot be attained without adequate physical facilities such as library buildings. Laboratories and workshops is a must if an educational institution has to run effectively. Lack of proper utilization of available teaching, learning and physical resources had however led to non-achievement of objectives.

Other studies on performance contracting (Olatoun, 2012; Heinrich, 2009; Castellano *et al*, 2004; Pagelio *et al*, 2005) came up with similar results. The studies correlated various variables of performance that included availability of money, adequate human resources, performance monitoring and adequacy of physical resources. The findings indicated that there were positive correlations amongst these variables although others had strong positive correlations while others had weak positive correlations. The studies found out that despite the high amounts of money vested in the improvement of educational institutions, there was low productivity and improvement in management. Olatoun's (2012) study for example recommended that proper monitoring systems for developing human resources must be put in place to ensure effectiveness.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the findings along the objective of the study is given. It starts with background information of tutors, followed by perceptions on the impact of PCs on tutor utilization. This is followed by perceptions on the impact of PCs on physical resources utilization.

Background Information of Tutors

The study collected data from tutors, HoDs and principals of selected public technical institutes in Kenya. The tutors were drawn from various departments in the technical institutes. A small majority of the teaching staff (42%) had served for less than 5 years followed by those who had served for 10 years and above (38%). Even if the HoDs and tutors had served for varying periods of time, this implied that they had served for a reasonable duration to provide insights into the implementations of PCs in their institutes. Moreover those who had served for longer periods were in a better position to indicate whether there was a difference between the period before the advent of PCs and after in as far as resource utilization is concerned.

Perceptions on the Impact of PCs on Utilization of Physical Resources

The HoDs perceived that PCs had a greater impact in improving maintenance of infrastructural resources (58%) and better resource use (58%); the least being provision of adequate resources at 42%. Majority of the tutors (57% overall) perceived the PCs to have a greater impact on utilization of physical resources compared to the 21% in disagreement. PCs had a greater impact in leading to better inventory keeping (63%), followed by adequate resources (57%), better use of resources (46%) and the least being improved maintenance of resources at 35%. The Tutors and HoDs felt that there was improvement in the conservation and cleanliness of physical resources as well as inventory of the same. Members of staff were however not adequately trained on the proper utilization of physical facilities. The principals also felt that due to the quality of services being delivered in the institutes, there were increments in the enrolments of students. Proper utilization of physical resources however had made the institutes to handle the influx of students. The situation could not continue for long however if other measures like availing of financial resources were not taken to cater for the same.

CONCLUSIONS OF THE STUDY

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 concludes that financial constraints hindered tutors from being trained on the utilization of physical resources. Such included the use of power point projectors and related appliances, use of modern complicated machinery, internet and on-line learning applications. Performance contracting had led to proper utilization of physical facilities. That had in turn led to improvement in service delivery which had attracted increased student enrolment. The benefits were however threatened by the fact that lack of financial resources meant there were not going to be additions in physical resources, hence the risk of over utilization of those available leading to low quality of services.

Study Recommendations

The management of TTIs should engage all staff in regular training inform of seminars, workshops, benchmarking and INSETs so as to make them realize the importance of performance contracts in achieving the optimum levels of physical resources' utilization. This will also motivate Staff to go out of their way to do more and above their normal duties for the good of the TTIs.

REFERENCES

Abagi O (2001). *Revitalizing Financing of Higher Education*: Resource Utilization in Public Universities. Nairobi: IPPRA.

Abdulkaram A, Fasasi A, Akinubi P (2011). Human Resource Utilization and Internal Efficiency in State owned Universities in Nigeria. Int. J. Acad. Res. Bus. Soc. Sci. 1 (1).

Adeoye M, Popoola S (2011). 'Teaching Effectiveness Availability, Accessibility and use of library

Adesola AA (2005). 'Provision and Utilization, Mathematics ability and learning Environment as Prediction of Learning Outcomes in Undergraduate Practical Geography. Unpublished Ph.D. thesis, University of Ibadan.

Afolabi SO (2004). 'Influence of Resource Utilization on Organizational Effectiveness in Kwara State Government Owned Tertiary Institutions.' Unpublished P.hD thesis. Retrieved online on 10/11/2012.

African Union (2007). *Strategy to Revitalize Technical and Vocational Education and Training in Africa.* Addis Ababa: African Union, Department of Human Resource, Science and Technology.

Akinfolarin C, Ajayi I, Oloruntegbe A (2012). An Appraisal of Resource Utilization in Vocational and Technical Education in Selected Colleges of Education in Southwest Nigeria. *J. Edu.* 2 (1): 41-45. Addis Ababa: ECA, Development Policy Management Division.

and information Resources among Teaching Staff of Schools of Nursing in Osun and Oyo State, Nigeria.' *Library philosophy and practices, http.//www.unlib.unl.edu/up.*

Ayeni MF (2005). 'The Role of Vocational &Technical Educational and Technical Education.' J. Res. Vocat. Tech. Edu. 2(1) iii-117.

Ayres R, Warr B (2002). '*Economic Growth Models & the Role of Physical Resources*. 'Working Paper No. 53 (INSEAD).

Barasa L (2008). Ignore contracts, Teachers Told. Daily Nation, pg 5, 6th May.

Biruk S (2008). *The Management and Utilization of Education Materials in Bahir Dar University*. MA Thesis. Addis Ababa University.

Castellano JF, Young S, Roehm HA (2004). The Seven Fatal Flaws of Performance. *The CPA J. LXXIV* (6): 32-35.

Challenges for Higher Learning Institutions in Developing Countries. Int. J. Edu. Develop. 3 (2): 57-67.

Eghosa BL (2011).'Perception of the Library by Secondary School Students in Enhancing success in their examinations. Myth or reality?'International Conference on Teaching and Learning and Change.

Emery Y (2008). Swiss public Servants' Perceptions of Performance in a Fast Changing Environment. *International Review of Administrative Sciences*. Vol.74,2, 307-323

GoK (2005). *Ministry Human Resources Development Strategy*- Nairobi: Government Printer.

GoK (2008). 'Economic Survey.' Central Bureau of Statistics. Nairobi: Government Printer.

Hooker M, Mwiyeria E, Waweru S, Ocharo M, Bassi R, Palmer L, Clark D (2011). *TIVET ICT Baseline Survey Report*. MOEST and GESCI.

Johnson AR, Gouri LB (2010). *Statistics*: Principles and Methods. Madison: John Wiley and Sons Inc.

Kimenyi M, Mwabu G, Manda D (2006). Human Capital Externalities and Private Returns to Education in Kenya: *Eastern Econ. J.* Vol. 32 No.3.

Kirk RE (2008). *Statistics*. An Introduction. Belmont, CA: Thomson Wadsworth Inc.

Kobia M, Mohamed N (2006). *The Kenyan Experience with Performance Contracting*. Nairobi: Kenya Institute of Administration.

Kothari CR (2004). *Research Methodology: Methods and Techniques*. New Delhi: New Age International (P) Ltd, Publishers.

Letangule LS, Letting NK (2012). Effects of Performance Contracts on Organizations' Performance: the Case of Kenya 's Ministry of Education. *Int. J. Manag. Bus. Stud.* 2 (3) July.

Manduku JG (2012). 'Factors Influencing Appraisal Systems: A Contextual Examination of Performance contracts among the teaching Staff in Selected Kenyan Public Universities.' Unpublished D.Phil Thesis. Eldoret: Moi University.

Mueller KJ (2006). Expectancy Theory in Developing Nations: Motivating Botswana Public Servants. *Pub. Admin. Develop. J.* (3) 3.

Nyerere J (2009). *Technical and vocational Education and Training Sector Mapping in Kenya*. Dutch Schokland TVET Programme. Edukans Foundation.

Obongo SO (2003). *Productivity Improvement in the Public Service in Kenya*. Nairobi: Civil Service Reform Secretariat.

Okwori A (2006). *Educational planning for community development*. Educational Management Thoughts and practice. Ibadan: Codat publications.

Onsomu E, Wambugu A, Wamalwa F (2009). *Improving Technical and Vocational Training in Kenya*: Lessons from Selected Countries. Discussion Paper No.105. Nairobi: KIPPRA.

Othman R, Mellisa N (2007). *ISO Standards' Implementation at Private Colleges*. Academics and Non-Academics' Perspectives. International Conference on Educational Reform. Mahasarakham University, Thailand.

Sife A, Lwoga E, Sanga C (2007). New Technologies for Teaching and learning:

Trivedi P (2009). Performance Contracts in Kenya. Instruments for Operationalizing Good Governance. New York: World Bank.

Uguru C, Abdulahi H (2007).'The Educational Implications of the Core Course and Elective Course to Agriculture Education Lectures and Students' .*A Rev. J.Edu. Res. Dev.*2 (3).

Umunadi EK (2012). *Resource Management and Planning in Vocational and technical Education for National Development:* An Assessment. *Afri. J. Edu. Technol. Vol.2(1): 48-59*. www.sachajournals.com