University Expansion in Kenya and Issues of Quality Education: Challenges and Opportunities

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Abstract

The demand for university education in Kenya has significantly increased and continues to swell. Many secondary school graduates and the working class look for opportunities to pursue university education. Universities being accountable to the public as stakeholders need to guarantee that they offer quality teaching, research and community service to its students. With the increasing numbers of students seeking places in public universities, the question of quality is critical and requires urgent attention. This article reports on data from a study that sought to explore the perceptions on the quality of service delivery in public and private universities and the opportunities for quality university education in Kenya. Data was collected in May to November 2010 from a sample of 502 university students and 127 lecturers using structured questionnaires. It was found that public universities did not have the necessary physical facilities to effectively offer service to its current student body. The study recommends that to absorb the large number of students in a double intake and offer quality education required careful investment in physical facilities, teaching and research resources, innovative Information Communication Technology and collaboration with the private universities.

Key words: Quality, Double intake and Collaboration.

INTRODUCTION

Educationists have used different terms to refer to decisions that affect an aspect(s) of schooling in country. Educational policy and education reform are now preferred terminologies of what used to be called "educational planning." The educational policy statements are found in a variety of sources; common among them being education acts, political statements, reports of education commissions, task forces and international agencies. Education policies are formulated to achieve political, pedagogical, economic, social or a combination of these objectives to suit the intentions and judgement of policy makers. This paper focuses on the government of Kenya's intention to have double intake of university students' in the 2011/12 academic year.

LITERATURE REVIEW

The political leadership in Kenya has been quoted in the recent past of its intentions to increase student intake to public universities through a double intake. This statement meant that each public university will take higher number of students above the admissions of previous years. This academic year (2011/2012), universities will be admitting 32, 611 students. This number is 8,000 more than the 24,000 students admitted the previous year (Daily Nation June 21, 2011). This increase in student numbers will be done alongside upgrading and acquisition of tertiary colleges by public universities. In many cases, the acquired institutions switch to production of courses offered by the universities at degree, diploma and certificate levels. The effect is that universities are putting effort in services outside their core function, which should be production of the highest caliber of human capital for the society. The acquisitions also imply production of fewer diploma and certificate holders and university space being occupied by students who should be admitted in other tertiary institutions. In any case, at a time when many qualified KCSE candidates for university intake fail to get admission to universities, do we have convincing justification for running diploma and certificate courses in universities rather than middle level colleges?

The first double intake of university students in Kenya occurred in the 1986/87 academic year. Following the 1982 attempted coup, the Government ordered an indefinite closure of the University of Nairobi, which was the only public university in the country. This closure lasted for a period of one year. In terms of students' admission to the university and progression from high school, it meant that about 8,000 applicants who qualified for university admission in the academic year 1983/84 were not admitted to the university. Thus, the prolonged closure and other closures due to students' strikes caused a backlog of qualified students due for admission. Against this background, the Government directed universities to embark on a double intake of students in the 1986/87 academic year.

The second double intake of university students occurred in the 1990/91 academic year. It was occasioned by the shift from 7-4-2-3 to 8-4-4 education cycle. A study by Mwiria & Nyukuri (1994) on the management of double intakes describes the planning and implementation adjustments that were made to accommodate double intake of students in 1990 at Kenyatta University. According to this study a number of management changes took place at Kenyatta University to cope with the double intake. The first set of changes related to the expansion of tuition and boarding facilities. However, because resources to implement such changes fell far short of the demand, congestion in lecture theatres, science laboratories, libraries and dining halls remained a critical problem. The second set of changes related to the organization of the three semester year, which necessitated the use of available facilities throughout the year. Although commendable from the point of view of promoting a more efficient use of available resources, these measures also had some negative consequences; most notably the lowering of staff morale, the lengthening of the period it takes students to complete their degree courses as well as the lowering of academic standards. The third set of changes related to staff incentives. These have included accelerated recruitment of teaching staff, the application of relaxed promotion criteria, and the introduction of monetary incentives. The first two measures have tended to de-emphasize merit and the need for staff to research and publish and have had serious negative consequences on the quality of education offered by Kenyatta University. Finally, the double intakes necessitated changes in the administration of university examinations. The increased enrolments were accompanied by an increase in examination irregularities such as cheating while staff applied less rigorous criteria in grading examinations. Measures recommended by the Senate to curb such malpractices did not succeed mainly because of the unmanageable size of many classes. Other measures taken to improve on the efficiency of administering examinations such as the introduction of multiple choice tests only added to further dilute the quality of education offered at Kenyatta University.

Universities are established to meet specific objectives. In the event that these objectives are not met, then they cannot justify huge public expenditure on them. Today Kenya Government is pursuing Vision 2030. *Kenya Vision 2030* is the country's new development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrialising, "middle-income country providing a high quality life to all its citizens by the year 2030" (Republic of Kenya, 2007). Critical players in achieving Kenya Vision 2030 are the universities. This is because education and training at university level, according to the Government (Republic of Kenya, 1999), is expected to achieve the following:

- (a) Imparting hands-on skills and capacity to perform multiple and specific national and international tasks.
- (b) Creation of dependable and sustainable workforce in form of human resource capital for national growth and development.
- (c) Creation of entrepreneurial capacity for empowering individuals to create self- employment and employment for others.
- (d) Offering opportunities for advancement of learning beyond basic education with strong leaning towards scholarship and research.
- (e) Creation of a strong national research base at various sectors of economic and national development.
- (f) Bridging the gap between theory and practice in various disciplines of education and training.
- (g) Creation of a strong sense of nationalistic and global development.
- (h) Inculcation of a culture of precision, moral discipline and work ethic which are necessary in modern industrial and technological world.

A careful study of these objectives underscores the importance of the universities and justifies current concern that they provide the kind of education and training expected of them. The stakeholders need an assurance that there is quality in provision of university education in Kenya.

STATEMENT OF PROBLEM

The demand for university education in Kenya continues to increase and has outpaced supply. This is mainly due to the expanding number of KCSE candidates that obtain the required grade (C+ above) for admission to a university. The universities have been unable to admit all those who qualify for direct admission from school. Other factors that have contributed to increased demand for university education include; the perception that university education guarantee lifelong secure career, the changing nature of the job market characterized by frequent changes of jobs thereby requiring further education and training and the desire to advance in current employment and create prospects for future careers. Moreover, individuals who attained lower qualifications are finding universities more flexible than before when the only way was through a convincing pass in Kenya Advanced Certificate of Education (KACE) or KCSE examinations (since 1989). This created the module II group of students which largely comprise the working class, taking studies in the evening or weekend. In response to this demand, the government has continued to expand public universities by opening several constituent colleges. The latest move by the government is to have a double intake of students in the 2011/12 academic year. Already there are complaints and protests from lecturers of public universities. The lecturers are of the view that the universities are not ready for the double intake and they are threatening to lay down tools if the decision is not reversed (Musembi 2011). This raises questions on the level of preparedness by these universities for the double intake, considering existing exponential growth witnessed in the last decade due parallel programmes and whether it will not further dilute the quality of university education. The researchers thus embarked on a comparative study of quality issues in public and private universities in Kenya.

The objectives of this study were; to determine the perceptions of students, lecturers and administrators on the adequacy of resources for offering quality of education, and to explore viable options for admission of more students without compromising quality of education offered in the public and private universities.

METHODOLOGY

This study utilized ex post facto and survey designs. The ex post facto analysis involved examination of relevant documents to the study. The information obtained was useful in interpreting results from survey questionnaires. Data was collected from University of Nairobi, Masinde Muliro University of Science and Technology, University of Eastern Africa (Baraton) and United States International University (USIU) between May 2010 and November 2010. The sample size comprised 127 lecturers and 502 students. Two of the universities were public while the other two were private universities.

RESULTS AND DISCUSSIONS

Availability of Physical Teaching and Learning Facilities

One of the objectives of the study was to establish perceptions on whether the universities had sufficient physical learning facilities for provision of quality education. The researchers asked lecturers for their opinion on whether the available lecture rooms were satisfactory or not. The statement responded to was, "The University has sufficient lecture rooms for students". Results indicated that satisfaction level with lecture rooms were at 69.053% and 43.482% respectively for private and public universities. The interpretation was that effective teaching and learning in public universities was hampered by lack of enough lecture rooms. Thus, some students missed sitting space during lectures or attended lectures as they sat outside the lecture rooms. Lack of appropriate sitting space causes lack of concentration and student attention to the lecturer who delivers a lesson. This encouraged rote learning as students heavily relied on lecture notes. As noted by Mwiria & Nyukuri (1994), the 1990/91 double intake at Kenyatta University caused lack of lecture rooms of adequate size; the existing facilities were characterized by serious congestion, with some students being forced to sit outside the classroom and listen to their lectures through the windows. Under such circumstances, it was noted, it became almost impossible to have students interact meaningfully with their teachers or to get them into the lecture rooms quickly enough to ensure that teaching time was not lost.

Analysis of satisfaction level with laboratory equipment was made. It was found that public universities did not have up-to-date laboratory and workshop equipment as the satisfaction level was 79.167% and 34.70% for private and public universities respectively. The interpretation was that public universities did not have satisfactory laboratory and workshop equipment for effective teaching and learning. Further analysis of the perception of lecturer showed that private universities were satisfied with available number of and quality of computers while public universities were not.

The satisfaction levels were 83.929% and 35.363% for private and public universities respectively. It was interpreted that public universities did not have satisfactory number and quality of computers for effective teaching and learning and that lack of enough physical facilities such as lecture rooms, computers, laboratories and laboratory and workshop equipment negatively affected the quality of teaching and learning in public universities.

Shortage of physical facilities in public universities in Kenya is well documented. World Bank (2000) and Cheboi (2001) noted that financial resources directed to university education were inadequate. Cheboi (2006) observed that shortage of facilities affected the quality of higher education. He further observed that poor recreation facilities affected quality of higher education. Report of The Public Universities Inspection Board (Republic of Kenya, 2006) noted that quality and quantity of teaching and learning materials particularly information technologies impact in a very significant way on the quality of teaching and research. The Board further noted that accelerated growth in student numbers in the public universities had not been matched by expansion of physical facilities and academic infrastructure and that some of the existing infrastructure was inadequate, dilapidated and in bad state of despair.

According to Okwakol (2008) most African universities do not have adequate physical facilities such as lecture rooms, office, and library and laboratory spaces to provide a suitable learning and teaching environment. She noted that 55% of laboratory equipment in most departments in universities was not in a state in which they could be used to carry out experiments. The net effect of this scenario was that only about half the experiments were done.

In the circumstances that public universities are experiencing shortage in learning and teaching physical facilities, what then is the interpretation of the expected higher student enrolment? Our view is that it will lead to further deterioration of quality teaching and learning services offered in these universities. Attempt to meet the objectives of university education will turn into a mirage and exercise in futility. It will be mass production of university graduates who have certificates without matching academic, technical and psychological competence.

Library Resources

The study targeted 24 library staff from the universities, but only 23 responded resulting in a response rate of 95.8% which was considered adequate for this study. The distribution of respondents is shown in the table below.

Table	1:	Library	staff
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Name institu	-	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Baraton	2	8.7	8.7	8.7
	MMUST	4	17.4	17.4	26.1
	UON	11	47.8	47.8	73.9
	USIU	6	26.1	26.1	100.0
	Total	23	100.0	100.0	

Table 1 shows that 47.8% of the respondents were drawn from the University of Nairobi. This high number was attributed to high number of constituent colleges that the University has.

Analysis was done on adequacy of trained staff for library services in private and public universities. Results showed that 87.5% and 73.33% of librarians in private and public universities respectively were satisfied with the number of trained library staff available. The interpretation was that both private and public universities had enough trained library staff to support effective library services for teaching and learning. The researchers wanted to find out the adequacy of library facilities such as space, print journals, e-journals, internet and current books. It was found that 100% and 66.667% of librarians in private and public universities respectively were satisfied with library space. It meant that the library staff were of the opinion that private and public universities had enough reading space in the libraries to accommodate the students.

Investigation was done on the perceived adequacy of print journals in university libraries. It was found that 100.00% and 46.667% librarians in private and public universities were satisfied with available print journals. It meant that print journals were not adequate in public universities. It was interpreted that public universities did not have a satisfactory number of print journals for effective teaching and learning.

Results on the perceived adequacy of internet facilities in university libraries indicated that 100.00% and 40.00% of librarians in private and public universities respectively were satisfied with internet facilities. It meant that public universities did not have adequate internet facilities for effective teaching and learning.

Analysis was done on the perceived satisfaction with availability of current books (2005 - 2010). Responses showed that 100.00% and 60.00% of librarians in private and public universities were satisfied with the available current books and journals. It meant that quality teaching and learning in private and public universities was not negatively affected by shortage of current books and journals. The result is a reflection of the less significance associated to print books and journals. This is in the light of the abundance of knowledge available electronically in the internet.

The above analyses show that shortage of physical facilities, namely print journals and internet facility in public university libraries negatively affected the quality of teaching and learning in the universities. According to Eshiwani (2009) our universities are forced to work under adverse conditions; poor salaries, lack of resources for non salary academic expenditure, such as textbooks, journals, teaching and research equipment and maintenance of such equipment. He asserts that the situation has resulted in a lowering of academic standards and of quality of graduates. Graduates are deficient in written communication and technical proficiency which make them unfit for the market.

Okwakol (2008) noted that a computer is increasingly becoming the major notebook, textbook, dictionary and storage facility for information for students in quality institutions of higher learning. She noted that universities that fail to utilize the benefits of the digital age-computer assisted learning, web connectivity and networked learning – cannot offer quality education. Library facilities and information systems in almost all universities are antiquated. Books and scholarly journals are not only few but very old and are therefore irrelevant to current institutional needs and priorities. A study by Ndethiu (2007) at Kenyatta University found that lack of adequate reading resources posed a challenge to the promotion of students' reading habits. Lack of current and relevant books, inadequate use of internet and general lack of reading space were important constraints to students reading.

Manyasi (2010) while studying how using information technology could increase access to higher education through distance learning in Kenya found that institutions of higher learning lacked the necessary technology. The institutions had only a few computers, which were used by lecturers to access internet services. Lecturers and administrators lacked instructional competencies and information design for distance learning associated with delivery of high quality services. Advances in Information Technology could provide solution for the demand in university education in Kenya. However, there was insufficient institutional preparedness. Apart from inadequate space and shortage of current books and journals, public universities did not have satisfactory internet provision for the learners. This was a great impediment to provision of quality teaching and learning. As was noted earlier, computers and internet services are integral ingredients to modern day higher education without which quality of education suffers.

Ratio of Lecturers to students

For effective teaching to take place at a university, there is a minimum ratio of lecturing staff against the number of enrolled students to be achieved. The Commission for Higher Education (CHE) has worked out recommended lecturer/student ratios associated with quality teaching and learning for the various disciplines studied at the universities. The recommended lecturer/student ratio was compared against what was available at the selected universities. Table 2 shows the recommended lecturer/staff ratios.

Table 2: Recommended ratio per department of staff to students

Programme	Lecturer/Student Ratio
Applied Sciences	1:10
Arts and Humanities	1:15
Medical and Allied Sciences	1:7
Pure and Natural Sciences	1:10
Social Sciences	1:18

Source: CHE (2010)

Attempt was made to analyse the lecturer/students ratio per department of each of the selected universities. Information was obtained from the relevant offices and the results are shown in the tables below.

Table 3: Ratio per department of lecturing staff to students at University of Nairobi

Name of College	Lecturers	Students	Ratio(Existing)	No of lecturers expected	Short fall of lecturers
Agriculture and Veterinary Science	157	1,683	10.72	168	11
Architecture and Engineering	146	3,796	26.00	380	244
Biological and Physical Sciences	153	2,972	19.425	297	144
Education and External Studies	78	7,203	92.346	400	322
Health Sciences	285	2,919	10.242	417	132
Humanities and Social Sciences	368	18,059	49.074	1003	635
Total	1,187	36,632	30.861	2665	1478

Table 4: Ratio per department of lecturing of staff to students at Masinde Muliro University

Name of Faculty	Lecturers	Students	Ratio(Existing)	No of lecturers expected	Short fall of lecturers
Engineering	39	629	16.128	63	24
Education and Social Sciences	108	5607	51.926	312	204
Science	87	651	7.483	65	-
Total	234	6887	29.432	440	228

Table 5: Ratio per department of lecturing staff to students at United States International University (USIU)

Name of School	Lecturers (full time only)	Full-time & Part- time lecturers	Students	Ratio with full time staff only	Ratio with total staff	No of lecturers expected
Humanities, Social Sciences and Business courses	89	349	4,702	52.83	13.473	261

Table 6: Ratio per department of lecturing staff to students at University of Eastern Africa – Baraton

Name of School	Lecturers	Students	Ratio(Existing)	No of lecturers	Short fall of lecturers
Business	16	598	37.375	expected 33	17
Dusilless	10	396	31.313	33	17
Education	12	327	27.25	18	6
Health Sciences	22	479	21.773	68	46
Humanities and Social Sciences	35	147	4.2	8	-
Science and Technology	41	386	9.415	39	-
Total	126	1921	13.158	166	69

Table 3 above shows that there was shortage of staff in all the departments of University of Nairobi. It also shows that the number of lecturers available was 44.54% of the expected number of lecturers. Assume that the short fall was filled by part time lecturers as is the international practice, then part time lecturers constituted 55.46% of the teaching staff. From the table it is evident that Education and External Studies and Humanities and Social Sciences experienced larger shortage of lecturers.

The results in table 4 above indicate that Masinde Muliro University was experiencing shortage of lecturers. It also showed that the University met 53.182% of its teaching staff requirement. This meant that 47% of its teaching staff was part time lecturers. Table 5 above shows that full time lecturers at USIU were 25.501% of the expected number of lecturing staff. The table also shows that management at USIU had made deliberate effort to recruit more part time staff which currently forms 74.499% of its teaching force to fill the short fall in teaching requirement. This shows serious shortage of full time lecturers.

Table 6 above shows that Baraton was experiencing a shortage of lecturers. The shortage of 69 lecturers represented 41.466%. This shortage was very serious since this was a short fall after considering both full time and part time lecturing staff. It shows that the university was experiencing difficulties in attracting personnel for the teaching positions. It was not understandable that amidst this difficulty the University had more lecturers than required in Humanities and Social Sciences and Science and Technology departments. The suspicion was that the extra staff were serving religious purposes in addition to their teaching duties.

The researchers obtained the views of lecturers on the sufficiency of lecturing staff. Responses showed that lecturers were aware of the shortage of staff in both private and public universities in Kenya. At Baraton 66.667%, USIU 66.667%, University of Nairobi 70.049% while Masinde Muliro 66.667% reported shortage of staff in their departments. The opinion of lecturers confirms analysis in tables 3, 4, 5 and 6, that there was shortage of teaching staff (lecturers) in both public and private universities. It was found out that the shortage was more serious in private universities than public universities. It was therefore interpreted that shortage of lecturers reduced efficiency of lecturers in offering effective services for quality education in private and public universities in Kenya. This finding corroborates earlier studies, Waituru (1999), Maria et al (2003) and Mutisya (2010) that singled out shortage of lecturers as serious threat to offering quality university education. As was found out, private and public universities have more part time than permanent lecturers. Part time staff are available for the scheduled lecturing hours but not for consultations with students. This arrangement denied students opportunity for deeper understanding of subject matter through critical enquiry in guided debate and practice.

That both private and public universities had shortage of lecturers, was a cause of concern since coping mechanism would involve increased workload and employment of incompetent staff. With the impending double intake it is expected that the level of shortage of lecturers will increase in the public universities, above the current situation. Then the question is, how will the students be taught, who will teach them and what is going to be the quality of university teaching? According Mwiria & Nyukuri (1994), with the double intakes, public universities tended to relax the criteria for both the recruitment of new staff as well as the promotion of those already working at the institutions. Due to a demand for teaching staff that outstripped the supply, they have been forced to fill existing academic positions with persons who would normally not have qualified to join the university system. Thus, graduates from unaccredited universities in India and North America, have been recruited to take up teaching positions in public and private universities. Private universities, though, have a higher ratio of this kind of questionable staff compared to public universities. Ngolovoi (2006) argues that increased workload and lack of competence by some lecturers could be affecting the delivery of quality education to students in universities in Kenya.

Odebero (2010) noted that to survive the heavy workload, faculties developed the following survival mechanisms:

- (i) Assigning graduate assistants and tutorial fellows full teaching responsibilities such that they teach both junior and senior classes.
- (ii) Assigning graduate assistants and tutorial fellows students' advisory responsibilities including assessment of students in the field. Thus, it is not uncommon to see staff who had never taught in any school and who had no experience at all in the field being given the responsibility to advise when they needed more advise themselves.

- (iii) Masters by project work. This is usually conducted by coursework, examination and project work (minor research) instead of the rigorous thesis. The major weakness of the project mode is that the project work does not go through the quality assurance process that full thesis have to endure.
- (iv) Assigning junior faculty members to supervise. The main problem with graduate studies has been the explosion of demand for graduate studies against few competent supervisors. As a result, lecturers have to supervise up to 50 graduate students. In most instances, such lecturers would have been unable to do their PhD or to publish in peer refereed journal and they now see supervision of thesis as an opportunity for making money. Moreover, these students have to be dispensed with as quickly as possible to allow for more to enroll. It is not uncommon to find senior lecturers now rooting for even assistant lecturers to supervise.
- (v) Appointing supervisors from other disciplines. Some of them rarely comprehend the content.

In private universities, it is common practice for teaching staff to be allocated teaching units in areas outside their core competencies. This negatively exposes the teaching staff, being 'students' learning together with the admitted students. A scrutiny of these copying mechanisms reveals that they are detrimental to the quality of higher education and negatively influence academic rigour. While it can be argued that technology may dictate fewer members of staff than before, it needs to be borne in mind that most of the teaching aspects require a combination of manual and mental operations like development and review of curricula, marking of scripts, preparation of lesson notes, supervision of student projects and thesis, field assessments and student consultations. The implication is that students' enrolment needs to be made with due consideration to the number of qualified and competent teaching staff available for a particular discipline and where enrolments have to be increased; an appropriate recruitment of staff needs to be done.

Availability of Tutorial Classes

Asked whether tutorial classes were offered, the responses from lecturers showed that 71.111% and 65.854% of lecturers in private and public universities respectively reported that tutorial classes were absent. It was concluded that tutorial classes died in public universities and have not been institutionalized in private universities. Even though at University of Nairobi, tutorial classes were provided for in the timetables, it was found that the stated hours were used for normal class teaching. Tutorials and practical lessons are meant to give students deeper understanding of subject matter through critical enquiry in guided debate and practice. Inadequate practical lessons or fieldwork deny the trainees' opportunity to link theory learnt in lecture halls and the field of work. According to Waituru (1999), lack of tutorial classes could lead to universities producing graduates with a lot of rote learning and poorly developed critical thinking abilities. The shortage of lecturers also makes organizing for tutorial classes a big challenge. These findings corroborate other studies which found that undergraduate students taking entrepreneurship course in public universities were dissatisfied with the course units and felt that the methods and approaches used to teach them were unsuitable (Gachiri, 2003). Ndethiu (2007), found that promotion of reading habits among Kenyatta University undergraduate students was greatly constrained by teaching and assessment methods.

Research Duties

The researchers wanted to find out the views of lecturing staff regarding the quality of research at the selected universities. The respondents were asked to respond to a statement, "Quality of research done by staff is high". Responses showed that the respondents from both private and public universities were in agreement that quality of research is high. On average the quality of research is better in public universities (59.72%) than private universities (53.572%).

Attempt was made to find out if increase in student numbers has had effect on research activities. Results indicated that the number of students admitted to public universities has had negative effect on quality and quantity of research. Staff of private universities thought it did not have a negative effect on quality and quantity of research. 40.48% and 58.822% of staff from private and public universities respectively thought that the number of admitted students has negatively affected the quality and quality of research the universities. It was interpreted that increased student numbers negatively affected quality and quantity of research in public universities in Kenya. Furthermore, private universities seem to have experienced long term problem of conducting quality research, not because of increased student numbers since most of them did not operate at full student capacity but largely due high workload occasioned by shortage of lecturers and reliance on part time teaching staff in the private universities.

The findings compare to Olukoju (2002) who found that there was decline in terms of output, quality and regularity of publications due to decline in scholarly research in Nigeria. Chacha (2004) observed that research and publishing by faculty had sharply dropped, while Olel (2006) found that reduction in the number and quality of research carried out by the teaching staff at universities was due to overloading of staff with mainly teaching and marking duties. According to Eshiwani (2009) decline in government funds of the universities has adversely affected the quality of teaching and research as well as general working conditions in universities.

Students' welfare

Sporting activity is one of the most important students' activities. Students were asked to state their level of satisfaction with the sporting facilities provided by the university. It was found that 63.158% and 44.118% of students from private and public universities respectively were satisfied with provision of sporting facilities. This was interpreted to mean that public universities did not provide adequate sporting facilities. Fox, et al (2010) found that there were positive associations between involvement in physical activities and academic achievement among students. Results from a study by Taylor, et al (2010) indicated that participation in sports enhanced school adjustment, moral adjustment, self-esteem and more positive self concept among students. The results also indicated that students participating in sports reported higher grades and more motivation for further studies than their non-sports counterparts. It was therefore inferred that inadequate provision of sporting activities in public universities in Kenya negatively influenced the quality of teaching and learning in these institutions.

Students were asked to indicate their level of satisfaction with guidance and counseling services at the university. Results indicated that 78.947% and 44.410% of students in private and public universities respectively were satisfied with guidance and counseling services. It was interpreted that guidance and counseling services were effective in private universities but ineffective in public universities. It was therefore inferred that private universities were offering better guidance and counseling services to their students compared to public universities. This finding is similar to Standa (2000) and Kokul (2010) who found out that guidance and counseling services in public universities were ineffective. Ineffective guidance and counseling services was a hindrance to effective teaching and learning in public universities as such inefficiencies lead to students' unrest and other unsocial behaviours among students. Apart from shortage of facilities and lecturers, the public universities experienced unsatisfactory sporting activities and guidance and counseling services. Is it surprising that the students, mainly from public universities are having problems with moral integrity and overindulgence in social activities such as prostitution and drug abuse at the expense of their studies? Whereas universities provide students with opportunities to interact with society in totality, it is not acceptable that this interaction degenerates to both addictive and criminal levels. That is not quality, it is wastage.

Examination Processes

The effect of number of admitted students in universities on the quality of invigilation and supervision of university examinations was investigated. The lecturers responded to a statement which read, "The number of students has negatively affected the quality of invigilation and supervision of university examinations". The responses showed that 35.714% and 63.662% of respondents from private universities and public universities agreed with the statement respectively. It meant that inadequate invigilation and supervision of examinations in public universities was negatively affecting the quality of education provided in these universities.

With regard to frequency of student's cheating in exams in the university it was found that 21.918% and 31.325% of students from private and public universities respectively reported frequent examination cheating; meaning that frequency of students' cheating in examinations was higher in public universities than private universities. Cheating in examinations is an opportunistic behavior attributed to inadequate student preparation and lack of confidence to face examinations. Given that majority of students admitted to public universities obtained higher entry grades than their counterparts to private universities (Gudo & Olel, 2011), this higher prevalence in examination cheating than those admitted in private universities was attributed to lack of adequate control measures taken against examination cheating and remote chances of detection. It was therefore inferred that frequency of students cheating in public universities was lowering quality of its examinations and the education provided. Other findings showed that 9.779% and 14.179% of students in public and private universities respectively used money to influence lecturers and fellow students get undeserved grades. Further analysis showed that 26.846% and 27.692% of students in public and private universities respectively used sex to obtain undeserved grades and that sex was a more popular tool in the hands of students than money to influence the grades obtained.

It is possible that female students benefitted more in this vice since there are more male lecturers in both private and public universities than female lecturers. The university grades obtained, thus, were not effectively separating weak from bright students and authenticity of the certificates awarded to university graduates in were getting into jeopardy. The findings confirmed views by Eshiwani (2009) and Mutisya (2010) that the quality of education in Kenyan universities is lowered by among other reasons, cases of missing marks, sexually transmitted grades and people who write papers and projects for students in return for pay. According to Birungi (2006) how students are assessed for what they have learnt is an important element of quality assurance for the regulatory agencies and for individual universities.

External examination system was found to be dysfunctional in private universities. At USIU, external examination was not in use but relied on its lecturers to moderate the examinations and results. The advantage of the system is that it was fast and easy to manage but exposed the university examination to compromise as the lecturers know one another and may be hesitant to correct or criticize a colleague with regard to syllabus coverage and depth captured in the examinations. At the University of Eastern Africa – Baraton, external examination system was not regular. There were semesters or years when external examiners were appointed while much of the time they were not appointed. Thus, the university relied on internal moderation by its lecturers. The reasons for not using external examiners at Baraton were high cost associated with the system and that the university operated a three semester system. Such a system has short breaks between semesters – as short as two weeks. Those breaks were utilized by lecturers for marking the examinations of previous semesters.

In public universities, the external examination system was in use but faced challenges. Heads of Departments while responding to a question which stated, "What are the challenges facing the function of external examiners in the university?" reported that the system was going through challenges. The significant challenges identified were:

- (i) The number of students in some classes and departments were so large. Thus, the external examiners could not go through as many papers as required. This reduced quality of the external examination.
- (ii) Pressure of work. That, most external examiners were lecturers in other universities. Besides most of them were external examiners in other universities. Consequently, they did not have enough time for the exercise. They already had a lot of work in their work stations. Thus, pressure of work on the external examiners reduced their efficiency as external examiners.

Effective university education is judged by its processes and products. The method of assessing learner achievement is one of the processes that the universities need to get right. It is the role of university management to determine how to assess progress during the process of instruction and what criteria to use in evaluating the outcome.

Opportunities

To accommodate increased student enrolment in Kenyan universities would first require that the capacity of teaching staff is enhanced to adequately integrate technology to facilitate quality of delivery within a shorter time and greater distance than it is today. Indeed computers and internet services are integral ingredients to modern day education. The universities should be assisted to acquire these facilities for teaching and learning.

To achieve acceptable quality standards and mass university education in Kenya, there must be collaboration between the government and the private sector. The universities should be encouraged to partner with private sector in putting up physical facilities for accommodation, laboratories and lecture halls within the campuses. Under Build, Operate and Transfer (BOT) arrangements, universities can liaise with private investors in the housing sector to construct some of the required infrastructure which the investors operate for some time to recover costs before surrendering the same to the respective universities. Experience has shown that the government support to public universities is not enough to finance infrastructure development to match the increasing number of students. Public private partnership should include government incentives to private universities to admit more students through a reorganized centralized student admission and financing for students admitted to public and private universities. This requires rethinking the management of university students' loan scheme to meet tuition fees of students attending both public and private universities without any discrimination except for the amounts of loan available for the various courses of study. It was the view of the researchers that, HELB can approach commercial banks to fund the students' loan scheme on an arrangement where HELB provides collateral and provides approved names of student beneficiaries to banks who obtain loans at predetermined lower interest rate agreed upon between HELB and the banks.

The amount of money for collateral can be what the government allocates HELB in its yearly financial budgets together with money available in its revolving fund or money raised from an education bond. This arrangement has the capacity to increase enrolment four–fold from 32,611 to over 100,000 students in a year. This arrangement ensures that no single qualified Kenyan student for university admission misses the opportunity for higher education.

Another opportunity to be exploited is for universities to collaborate with middle level colleges in an arrangement whereby universities concentrate their effort to production of degree holders while middle level colleges produce diploma and certificate holders. These colleges should align their courses to degree programmes of universities of their choice. The curricula of the colleges should be carefully designed to allow for academic advancement including pursuit of degree studies. This arrangement will promote growth of the middle level colleges and release lots of space in universities for admission of degree students.

CONCLUSIONS

Despite the pressure to admit more students in a double intake, public universities do not have adequate capacity to do so. The demand for university education in Kenya exceeds the capacity of public universities to accommodate all the qualified KCSE candidates. The quality of education in public universities is negatively affected to a larger extent than private universities due to the large number of admitted students against limited available resources. Shortage of physical facilities for teaching and learning and unsatisfactory students' welfare services such as sports and guidance and counseling are problems specific to public universities. Shortage of lecturers, inefficient management of university examinations and inadequate funding for research are problems affecting both private and public universities. The demand for increased admission without expanding the universities' resource base is a precursor to a significant further decline in the quality of university education in Kenya.

Quality university education in Kenya is achievable for all the candidates who qualify for admission to the universities. However, it requires rethinking financing of university students' loan scheme, investment in modern information technology to enhance university teaching and collaboration between the government and private sector, including private universities as equal players in the provision of education at this level.

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