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Original Article

### Institutional Facilities and Quality of Students' Educational Experience, The Case of Universities in Kenya

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The role of education in enhancing individual and societal well-being has been well established. Social and economic systems place education at the center of efforts to improve the knowledge and skills of those in productive sectors of the economy. It is resources that oil the gears and propel education production systems. Resource allocations must therefore target components of the systems that have the greatest impact on social wellness. Higher education institutions (HEI) are perceived as organizations that seek to optimally allocate resources to maximize quality educational outputs, which drive socio-economic development. Evidence indicates that facilities as a resource rank second among expenditure costs after personnel emoluments. The extent to which facilities contribute to an institution's operations and value is a matter that interests this study. The question to answer was: is there a nexus between facilities, their use and the quality of students' educational experience to justify such cost outlay? This study sought to investigate stakeholder perception of the role of facilities in enhancing education quality in universities. A descriptive survey research design was used. A sample of 524 respondents from both public and private universities was selected using both purposive and proportionate random sampling techniques. Qualitative and quantitative data was collected using questionnaires, observation guides and interview guides. Qualitative data was transcribed, and presented in themes. Quantitative data was analyzed using descriptive and inferential statistics. Percentages, means, and chi-square ( $\chi^2$ ) was used to determine stakeholder perceptions of the role of facilities in enhancing the quality of university education experience, and to determine the existence of a relationship between perceptions in public and private universities. All statistical inferences were made at  $\alpha = 0.05$ . This study is likely to benefit university management decisions on levels of enrolment vis-à-vis facilities and resources for university education. It provides evidence on the relationship between facilities and the quality of education experience and the value institutions derive from facilities use and management. Sponsors of public education may make informed choices in favor of institutional inputs that impact student experience, and encourage universities to prioritize social value in what they offer.

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**INTRODUCTION**

Expansion of education systems has largely been driven by demand – a desire by diverse groups of people to be educated to higher levels (Vincent-Lancrin, 2008; Abagi et al 2005). The groups have different interests and needs that Education Institutions need to meet. The World Development Report (World Bank, 2011) reported grim statistics about groups in low-income countries that have remained marginalized in accessing education. However, scholars who only examine education through the equity lens seem to derive satisfaction from the notion that expanding education (Karigitho, 2021) solves the problem of access. This is the drive behind education for all initiatives that prioritize public funding of marginalized groups most affected by inequalities. Whereas inclusive education is an important social consideration, the value of education lies in enhancing the quality of educational experience that results in acquisition of competencies that uplift both individual and societal wellbeing (Altbach, Reizberg & Rumbley, 2009). Poor quality education to everyone would therefore be a worthless endeavor (Wolhuter, 2014).

Studies have extensively looked into enablers of education quality, with a majority focusing on its elements: teacher qualification, the curriculum, methods of instruction, and mandated quality assurance processes among others (Materu, 2007; Jedemark & Londos, 2020; Wolhuter et al., 2014). The notion that consideration of quality should capture all variables that go into provision of education (Sayed, 1997) is a valid proposition. But the complex interrelationships between these

variables such as access, survival, and outputs make it practically difficult to deal with all the interrelationships at once.

Vidalakis, Sun & Papa (2012) argue from the economics perspective that institutions must identify, prioritize and optimally allocate resources that will have the greatest impact on both qualitative and quantitative educational output. They categorized the resources into facilities and equipment, students, the curriculum and the human resources. Literature on scarcity of resources to support education, that include basic infrastructure among developing countries in Africa is extensive (Akinwumi, 2011; World Bank, 2000; Wanzala, 2013; Owuor, 2012; Ndirangu & Udoto, 2011). This is why society and individuals who bear the cost of education provision expect universities to deliver education that meets their aspirations.

The liberalization of higher education in the 1990s saw a shift in responsiveness from national needs as mediated through central planning, resource allocation and regulation by the state (OECD, 2002) to responsiveness to students as mediated by labor market needs preferences and choices. Universities have gravitated towards greater autonomy from government and competition for students and resources (Yusuf, 2007). Factors that drive potential students to enrol for education programs in a given institution (Angelopulo, 2013) include reputation, and credibility of the institution. The shortage of facilities in Kenya's public universities is well documented (Wanzala, 2013; Owuor, 2012; Gudo et al, 2011), with research reports perennially indicating resources directed at university education are inadequate

(Nyang'au, 2014; Kinyanjui, 2007; Tilak, 2004). These conditions make it difficult for institutional managers to implement institutional plans aimed at implementing institutional objectives, which include influencing and stimulating interest in students and the human resources available to be responsive and support institutional missions. It is a major quality reduction factor among education institutions which could undermine institutional image and reputation. The purpose of this paper was to explore the relationship between facilities, and an institution's value or quality. The question to answer was: Is there a link between facilities, their use and the quality of students' educational experience?

### **Quality and Value of Institutional Facilities**

Discussions about quality often link to the concept of efficiency (The Inter-University Council of East Africa, IUCEA, 2010a). This efficiency is not defined in terms of achieving the requisite level of quality at acceptable cost but rather at minimum cost. For instance, it may be efficient in terms of costs to have a lecturer attend to a thousand students in a crowded and poorly equipped facility, but this is not effective in providing the requisite environment that will stimulate a quality student experience. Vidalakis, Sun & Papa (2013) consider Higher Education Institutions (HEIs) as organizations that should pursue optimal allocation of resources to maximize quality of education output. Investment in facilities and equipment that facilitate integration of technology in traditional instructional methods is key. However, investment decisions become increasingly complex due to increase in student numbers, and changes in education technology, teaching and learning modes, and learners' expectations. Individuals tasked with solving institutional problems must understand the complex inter-relationships between issues of technology, facilities and instructional delivery to be able to effectively meet the needs of future generations (Vidalakis, et. al 2013).

An analysis of institutional expenditure (Universities UK, 2009) identified facilities as the second largest cost item after salaries. This seems to correlate with the view that teaching and learning spaces have an important contribution to the quality of the school and student achievement (Chepkonga, 2017; Ndirangu & Udoto, 2011). Substantive issues about facilities (Jedemark & Londos, 2020) relate to the size and effectiveness of classroom spaces, access to computers, and students' practical experience in laboratories. Appropriately designed spaces, and equipment, facilitate students' understanding of concepts outside the theoretical classroom-based teaching. Swaziland is cited among other Sub-Saharan countries (World Bank, 2010b) as a place where poor physical facilities and high student-teacher ratio have negatively impacted the quality of instruction. The absence of teaching aids had resulted in lecturers dominating classrooms with students as passive participants in the instruction process. Besides poor student learning experience during instruction, this stifles independent and critical thinking among students who are expected to drive society's welfare.

According to Loosemore & Hsin (2001), the biggest challenge facing facilities management in many institutions is the poor understanding of the relationship between facilities and organizational objectives. The quality of facilities is crucial in adding value to an institution since they enhance an institution's image and its marketability (Alessandri et al, 2006; Bennett & Temple, 2006). But immediate short-term threats to institutional stability often cause decisions that benefit long term aspirations of an institution to be put in the back burner. For instance, facility designs which are not aligned to the objectives of the organization may not serve the intended purpose for many years to come. High standards of facilities can have an important long-term influence on an institution's reputation which in turn influences students' choice of institutions. According to (Vidalakis, et. al, 2013& Duffy, 1980) provision of facilities and the design of spaces therein impact students' learning experience, user's behaviour and organizational

effectiveness. It is argued that well-designed rooms are enablers of social interaction (Joint Information Systems Committee (JISC), 2006), as they provide students with learning spaces in which to relax socialize and work together outside classes; this leads to higher levels of engagement in learning.

A key facility among those thought to have a significant effect on student engagement is the library. O'Kelly et al. (2023) reported research findings demonstrating that if appropriate spaces are available for their use in the library, students can adopt a range of postures including temporal ownership of spaces to meet immediate study need or visual privacy. Akon et al (2017) observed that students who engage in academic research had higher probability of success in academic and social functions. Despite the positive effects that library facilities may have on students' reading interest, Mondal (2020) cautions that library staff play a critical role in initiatives to promote student library experience. To produce good service, well-trained and motivated staff must be available, and use resources in the library to satisfy the needs of the reading community. A library that allows student teams to concentrate and connect with whomever they need when working (O'Kelly et al., 2023) creates a feeling of a learning community which positively impacts university social life. People will access services and activities needed to finish work started in the classroom and have a desire to continue activities beyond timetabled classes.

## LITERATURE REVIEW

### Theoretical Framework

This study was based on the theory of consumer choice, which relates preferences for the consumption of goods and services to consumption expenditures. The theory was traced to Alfred Marshall (Hands, 2009), who recognized the role of consumers in determining prices of products, rather than focusing on the cost with the producer as its determinant. The basic tenet of consumer theory is that consumers freely choose a vector of goods that they most prefer, to maximize their utility subject to a budget

constraint that says they cannot spend more than their total wealth (Levin, & Milgrom, 2004). Access to education, therefore, is likely to have a close relationship with the utility derived from its consumption, and perceptions about the value of education which have a relationship with this utility. These perceptions influence enrolment decisions among students, whose numbers are regulated by their ability to pay fees (the budget constraint). Thus, enrolment trends reflect the mixed messages in the information about the costs and benefits which students can expect. Institutional resource provision in terms of facilities, personnel, and equipment determines the number of education places to be supplied or the capacity of providers of education to absorb more students. The competitive drives among education providers aim at having them gain market share and profit. Students (consumers) on the other hand want to outbid each other for the various academic programs on offer.

### Conceptual Framework

The study conceived university education demands about the mechanisms that are deployed to enhance value and regulate quality of system output. The provision of university education depends on the capacity of institutions, as measured by students enrolled in the respective programmes. This must operate with a range of inbuilt strategies employed to enhance their capacity, targeting a range of social groups interested in education provision.

The measure for quality is embedded in facilities that support the provision of services to students among other quality enablers. The framework conceived formal mechanisms of control as those executed based on feedback arising from strategic actors who should be clear about institutional goals and objectives. Thus, monitoring of institutional activities, evaluation of performance and assigning meaning to outcomes in order to facilitate appropriate review are elements that should be built within institutional frameworks.



A continuum on the scale was used to measure identified indicators which contribute to demand. Whenever the number of students enrolled increases, for instance, the pressure is brought to bear on managers, who were expected to trigger the processes that impact the student experience. One may witness inadequate review of programmes, review of teacher loads, variation in student number in classrooms, change in the effectiveness of classroom delivery, and reappraisal of instructional resources which have to be shared between students. These may have a direct impact on education quality of the student experience.

Intervening variables that could distort the state of equilibrium with regard to the mechanisms put in place, included government policies on higher education provision, and institutional efficiency. Examining these mechanisms may provide insights into feasible sets of internally consistent configurations of organizational performance.

## **MATERIALS AND METHODS**

The study employed descriptive survey research designs. Surveys identify and accurately describe important variables in the study. The study population consisted of 22 public and 14 private chartered universities in Kenya. An accessible population of two universities each from public and private universities were selected by random sampling.

A Sample of 524 respondents was selected for use in the study using both purposive and proportionate sampling techniques. For the selected universities, programmes were identified based on bigger enrolment sizes and staff establishments. Students and lecturers were randomly sampled from the faculties and departments with identified programs. Deans of faculty and CoDs were purposively sampled from each of the identified schools in selected universities to provide information on institutional policy on demand and quality of university education. Data was collected using both questionnaires and interview schedules.

## **Research Findings/Results**

The results of analysis of the various aspects of data collected is summarized and discussed as outlined hereunder:

### **Facilities and Education Quality in Universities**

The contribution of facilities to education quality was examined using closed and open-ended items in questionnaires. Closed-ended questions had a Likert-type scale which formed a continuum for measuring the perceived value of facilities in assuring education quality.

For lecturers, five items inquiring into the status of facilities in universities were used. Aspects examined were: adequacy of facilities for use by all students; equipment of lecture halls with teaching aids appropriate to courses offered; equipment of library with resource materials relevant to courses offered; equipping of laboratories and other demonstration areas with appropriate teaching aids; and adequacy of office space for lecturers' preparations and student consultation. The outcomes were summarized in Table 1 and Table 2.

**Table 1: Lecturers' Perception of Facilities in Education Quality**

Nature of University Facilities	Responses	Public University (n=46)		Private University (n=42)		Total (n=88)		$\chi^2$	df	P	Mean
		f	%	f	%	f	%				
Lecture Facilities are adequate for use by students in all your courses	Agree	10	21.7	32	76.2	42	47.7	26.10	2	0.00	1.99
	Don't Know	4	8.7	1	2.4	5	5.7				
	Disagree	32	69.6	9	21.4	41	46.6				
Lecture halls are equipped with teaching aids appropriate to the requirements of your course	Agree	9	19.6	25	59.5	34	38.6	15.71	2	0.00	2.16
	Don't Know	3	6.5	3	7.1	6	6.8				
	Disagree	34	73.5	14	33.3	48	54.5				
The library is equipped with resource materials relevant to the courses you teach.	Agree	21	45.7	40	95.2	61	69.3	25.55	2	0.00	1.55
	Don't Know	6	13.0	0	0.0	6	6.8				
	Disagree	19	41.3	2	4.8	21	23.9				
Laboratories and other demonstration areas are equipped with requisite aids for your courses.	Agree	17	37.0	27	64.3	44	50.0	6.676	2	0.04	1.818
	Don't Know	10	21.7	6	14.3	16	18.2				
	Disagree	19	41.3	9	21.4	28	31.8				
There is adequate office space for lesson preparation and consultation with students	Agree	17	37.0	39	92.9	56	63.6	29.76	2	0.00	1.69
	Don't Know	3	6.5	0	0.0	3	3.4				
	Disagree	26	56.5	3	7.1	29	33.0				

Source: Field data

Results of the analysis (table 1) showed that lecturers in private universities had a positive view of the state of facilities in their institutions. Their rating was quite high on equipment of libraries with materials relevant to courses they taught (95.2%); availability of office space for preparation and student consultation (92.9%); and adequacy of facilities for use by students in all courses (76.2%). The corresponding rating for public universities on these parameters was 45.7%, 37.0% and 21.7% respectively. There existed a

significant difference between public and private universities lecturers' perception of facilities ( $p < 0.05$ ).

Lecturers were further required to identify what they felt was the biggest challenge to institutional quality enhancing practices which impacted quality education output. The outcomes as tabulated below

**Table 2: Lecturers' Perceived Challenges with Facilities**

Perceived Challenge	Public Universities (n=62)		Private Universities (n=30)		Total (n=92)	
	f	%	f	%	f	%
Inadequate facilities	28	45.16	25	83.33	53	57.61
Inadequate equipment and support utilities	28	45.16	5	16.67	33	35.87
Poor design of facilities	6	9.68	0	0	6	6.52

Source: Field data

Results from Table 2, seem to further reinforce the issue of inadequate facilities as the biggest challenge to quality-enhancing practices (57.61%). This was followed by inadequate equipment and teaching support utilities (35.87%). The findings also revealed a higher indication of challenges with equipment and support utilities in public than private universities (45.16% and 16.67% respectively). Such lack of equipment was likely to impair effective instruction and hinder experiences that facilitate students' proper acquisition of skills.

Students' responses on facilities were examined by looking at a range of indicators: adequacy of lecture halls for courses offered; congestion in rooms where teaching took place; equipment of rooms with appropriate teaching aids; adequacy of reading spaces in the library; and adequacy of library resources relevant to courses undertaken. The results of the analysis are summarized in Table 3.

**Table 3: Students' Perception of Facilities in Education Quality**

Status of Facilities and Student Support Services	Response	Public Universities (n=167)		Private Universities (n=150)		Total (n=317)		$\chi^2$	df	p	Mean
		f	%	f	%	f	%				
There are adequate teaching rooms for use in courses offered in your program	Agree	47	28.1	94	62.7	141	44.5	41.20	2	0.000	2.032
	Don't know	13	7.8	12	8.0	25	7.9				
	Disagree	107	64.1	44	29.3	151	47.6				
Teaching rooms where courses in your program are conducted are free from congestion during lessons	Agree	52	31.1	112	74.7	164	51.7	77.66	2	0.000	1.877
	Don't know	11	6.6	17	11.3	28	8.8				
	Disagree	104	62.3	21	14.0	125	39.4				
Teaching rooms are equipped with teaching aids appropriate to courses in your program	Agree	36	21.6	74	49.3	110	34.7	32.12	2	0.000	2.196
	Don't know	16	9.6	19	12.7	35	11.0				
	Disagree	115	68.9	57	38.0	172	54.3				
The library has adequate reading space for your use whenever you want to read	Agree	102	61.1	124	82.7	226	71.3	19.041	2	0.000	1.498
	Don't know	15	9.0	9	6.0	24	7.6				
	Disagree	50	29.9	17	11.3	67	21.1				
The library has adequate reading resources relevant to the courses you are undertaking	Agree	57	34.1	102	68.0	159	50.2	37.62	2	0.000	1.893
	Don't know	20	12.0	13	8.7	33	10.4				
	Disagree	90	53.9	35	23.3	125	39.4				

Source: Field data

According to results from table 3, the overall approval of facilities in supporting quality practices was low. Apart from libraries which were highly rated (at 61.1% and 71.3% for public and private universities respectively) for having adequate space for students' use whenever they wanted to read, all other parameters were rated at below 35% in public universities. However, students from private universities had positive sentiments with above-average ratings of facilities in their institutions. For all aspects examined in Table 3, a significant difference existed between responses from students in public and private

universities ( $p < 0$ ). Clearly, private universities were perceived to have better facilities than public universities.

Students as consumers of education services were found to be critical in the determination of challenges posed by facilities in assuring education quality. Their views about challenges posed by facilities and attendant utilities provided an objective criterion for comparative judgment with views of lecturers. The results are summarized in Table 4 below.

**Table 4: Students' Perceived Challenges to Quality of Facilities**

Perceived Challenge	Public Universities (n=137)		Private Universities (n=56)		Total (n=193)	
	f	%	f	%	f	%
<b>Inadequate equipment and teaching support utilities</b>	90	46.6	42	21.8	132	68.4
<b>Inadequate facilities</b>	47	24.3	14	7.3	61	31.6

Source: Field data

From the results in Table 4 above, overall inadequate equipment and teaching support utilities posed the greatest challenge to the effectiveness of facilities (68.4%) followed by inadequate facilities (31.6%). As observed earlier, students in public universities voiced challenges about their facilities more intensely compared to those in private universities.

The last aspect of facilities was student support services. The TRUE value of facilities is only realized when complementary inputs (the right AND staff) are in place to actualize benefits to users. Support services were thus examined by looking at the competence of staff supporting teaching, laboratories and library services, and access points for electronic resources. The results are summarized in Table 5.



**Table 5: Students' Perception of Student Support Services in Education Quality**

Status of Facilities and Student Support Services	Response	Public Universities (n=167)		Private Universities (n=150)		Total (n=317)		$\chi^2$	df	p	Mean
		f	%	f	%	f	%				
<b>There are competent technical staff to support teaching of practical courses in your program</b>	Agree	76	45.5	98	65.3	174	54.9	24.621	2	0.000	1.7603
	Don't know	19	11.4	26	17.3	45	14.2				
	Disagree	72	43.1	26	17.3	98	30.9				
<b>Library staff are adequate to offer services required of them</b>	Agree	99	59.3	115	76.7	214	67.5	10.898	2	0.004	1.5363
	Don't know	24	14.4	12	8.0	36	11.4				
	Disagree	44	26.3	23	15.3	67	21.1				
<b>The library has adequate computer and internet access points for use whenever there is need</b>	Agree	48	28.7	79	52.7	127	40.1	19.344	2	0.000	2.1041
	Don't know	17	10.2	13	8.7	30	9.5				
	Disagree	102	61.1	58	38.7	160	50.5				
<b>There are competent library staff to support provision of library services in the university</b>	Agree	88	52.7	103	68.7	191	60.3	9.988	2	0.007	1.6782
	Don't know	20	12.0	17	11.3	37	11.7				
	Disagree	59	35.3	30	20.0	89	28.1				

Source: Field data

From the results in table 5, mechanisms facilitating quality students' services were fairly effective. Students in public universities rated most support services to be below average, while those in private universities had a more positive view of support services. The most highly rated service parameter in public universities was the adequacy of staff to offer library services (59.3%) followed by competent staff to support the provision of library services (52.7%). This was in comparison to 76.7% and 68.7% respectively in private universities. The most lowly rated service parameter was adequate computer and internet access points (28.7%) followed by availability of competent technical staff to support teaching of practical courses (45.5%). The

corresponding rating for private universities was 52.7% and 65.3% respectively.

There was a significant difference between views of students from private and public universities in all examined aspects. Private universities were rated better than public universities across all service parameters. This meant that mechanisms relating to inputs complementary to facilities and student support services were more effective in private than in public universities. Thus, the educational life of students from private universities was likely more rewarding from better service experience in their universities

Inadequacy of facilities as one of the major issues challenging quality education provision especially in public universities was reinforced in open ended responses. The situation was made worse by the absence of appropriate support utilities like equipment and teaching aids. Consequently, practical lessons were reportedly scaled down due to large student numbers; such students were likely to find difficulties in demonstrating competencies in desired post-training manipulative skills, something that could follow them through into the world of work.

Output from observation guides revealed evidence of faulty power outlets, obsolete teaching aids; poor lighting; dysfunctional public address systems in lecture halls, and inadequate and often damaged seats both in classrooms and laboratories. Observable damaged utilities stood out as evidence of equipment that had not been serviced for long. This may be attributable to the intense sharing of facilities and equipment between the different groups, killing the spirit of care among the users.

In libraries, a large portion of books and journals were said to be obsolete. This left access to e-resources through internet as the major viable remedy to accessing up-to-date academic materials. However, this option was also limited because large sections of university facilities were poorly integrated with ICT making access to web-based resources extremely centralized in libraries and a few selected office buildings. The rapid expansion witnessed in recent years necessitates that far-flung campuses and learning centres share library services. This makes it difficult for students to experience reasonable service quality. Where students had to stay off campus due to inadequate boarding facilities, access to library services became difficult as they were forced to leave institutions early due to the problem of distance to their residential areas.

## DISCUSSIONS

The findings highlighted indicate that facilities and teaching support utilities posed the greatest challenge to quality education provision especially in public universities. It emerged that

private universities enjoyed better facilities and student support services. As reported by (World Bank, 2011) about groups in low-income countries which have remained marginalized in accessing education, lack of adequate facilities has the potential to fan marginalization. If available lecture rooms are grossly affected by the problem of over-established enrolments, it will undermine the quality of student experience. Research evidence has linked quality facilities (availability of classrooms of reasonable sizes, libraries and other infrastructure) both to students' academic achievement as well as teacher retention (Chapman & Carrier, 1990, Haneveld & Craig, 1996). There are indications that universities will likely continue to suffer shortfalls in public funding (Mohamedbhai, 2008), which will put pressure on institutional infrastructure and compromise institutions' ability to discharge their teaching and research mandate.

One would infer the need to develop rational plans to help prioritize construction and maintenance of facilities and equipment with the greatest impact on critical learning needs of students. Institutional managers must recognize the value of regular maintenance of facilities and equipment in lengthening their lifespan, and saving institutions costly expenditures. But Loosemore & His (2001) flagged another challenge that could arise: where institutions lack a cogent facilities management team of professionals capable of introspectively determining the performance of facilities and relating this performance to the core business objectives institution, benefits would be missed out. Often, institutions miss out on potential benefits of freeing significant fund to be reinvested in other components of institutional student experience. The quality of facilities also contributes to institutional value by promoting institutional image, enhancing marketability, and facilitating recruitment of quality students and staff (Alessandri et al, 2006). Since increased student numbers also translate into more revenue for universities, the facilities crisis could be mitigated by prudent institutional resource deployment strategies targeting facilities and equipment that attract students, and in prudent use

their facilities to make savings on maintenance expenditure. In the alternative, institutional image could be enhanced if enrolment growth is purposefully tied to availability of facilities and other infrastructural utilities that support learning experiences.

This study also found instructional support utilities to be wanting in universities. Wolhuter, et al (2014) identifies size and effectiveness of classroom space, access to computers, and practical experience in laboratories to be substantive issues that drive the value of facilities. However, evidence from student responses paint a gloomy picture of the situation especially in public universities. Satisfaction levels for adequacy of teaching rooms, availability of classroom space, teaching aids and equipment, and library resources were documented as 28.1%, 31.1%, 21.6% 34%. This rating is quite low. This reinforces other findings (Ndirangu & Udoto, 2011; Chepkonga, 2017; Vidalakis et al, 2013) which reported that facilities were unable to effectively support desired educational programs, and facilitate the development of learning environments that provide a stimulating and inspirational setting for users (teachers and students) in achieving their goals. Practical experience in laboratories is a major issue in sciences; provision of space and equipment would enable students to understand concepts outside the theoretical classroom-based teaching. But the problem is not localized to Kenya. A study (World Bank, 2010) found that education programs in most sub-Saharan Africa are employ traditional modes in instruction with lectures dominating delivery, effectively discouraging independent and critical thinking.

### **Other Perceptions of Challenges to Quality**

Inadequate facilities were perceived as the greatest challenge to quality enhancing practices as observed from responses in the study. But poor design of facilities received only a small indication among lecturers that it posed a challenge. This could be because of the poor understanding of the relationship between facilities design and organizational objectives. A

study by Vidalakis et al (2013) reported that once enrolled, students often tolerate poor quality facilities because they prioritize the most important aspect of a university's core service: learning materials and classroom delivery. But there is need to better appreciate the impact of social space on the value of facilities. The design of facilities to provision social spaces can create value for both students, staff, and the institutions. The spaces provide students with a common area in which to gather and relax, socialize, and work together outside the classroom leading to higher levels of engagement in learning. This instils a desire to continue activities beyond timetabled classes. Thus, it creates a feeling of a learning community which impacts heavily on university social life, and employability networking opportunities which is a predictor of a university's image formation.

### **CONCLUSION**

Perceptions in research are critical in fostering understanding of thoughts, feeling and attitudes towards a given problem. One is able, based on this understanding to interpret and formulate strategies to address the problem. This study examined lecturers' and students' perceptions of facilities and other complementary inputs supporting university education in Kenya. Whereas lecturers in private universities had a favorable rating of facilities, their counterparts in public universities largely expressed dissatisfaction with adequacy of facilities. Differences in sentiments between public and private university lecturers were significant. A follow up to determine the major issue with facilities which posed the greatest challenge revealed that adequacy of facilities ranked top, followed by inadequate equipment and teaching support utilities. Poor design of facilities was not considered to be a major challenge to quality.

Among students, overall approval of facilities was low in public universities who expressed higher negative sentiments relative to their counter parts private universities. Responses from public and private university students were significantly different. On perceived challenges to quality, inadequate equipment and teaching support

utilities were ranked top followed by inadequate facilities.

Support services were fairly rated. Students favorably rated the adequacy of staff to offer support services in the library. But computer and internet access points were largely inadequate. The availability of competent technical staff to support practical instruction was also poorly rated with public universities more intensely voiced the problem than private universities

It is recommended that more facilities that are critical to student's educational experience be put up on priority basis and existing ones maintained to give lecturers a conducive working environment, improve quality of students' learning experience, and enhance institutional image. Institutions should also device mechanisms to ensure relevant equipment and technical support staff are part of the regular budget to create value in students experience while undertaking studies.

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