



Student Satisfaction and Loyalty in African Universities: The Case of Ghana and Rwanda

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Abstract

Factors influencing student satisfaction and loyalty are of much interest to universities globally, because of the current competition for students. Nonetheless, the issue is barely examined in the African context. This study accordingly explored how student experiences with university staff and facilities related to student satisfaction and loyalty as posited by Pace (1975). The design of the study was quantitative while the accessible population was TVET universities in East and West Africa. A total of 355 bachelor students from one Ghanaian university and a Rwandan university were selected using multi-stage random sampling techniques. The College Student Experiences Questionnaire (CSEQ) was then used to gather the students' experiences. The data were analyzed using descriptive statistics (mainly, frequencies, and central tendencies) and inferential statistics (Pearson's correlation and the t-test) with the assistance of the Statistical Package for the Social Sciences (SPSS). A mixed level of experience was reported with respect to students' interaction with other students and staff. Most importantly, the study showed a positive relationship between being satisfied with a university and wanting to attend the same institution if given the opportunity again (student loyalty).

Keywords: Student satisfaction, faculty members, facilities, relationships, academic performance.

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Introduction

The need to attract and retain students in universities is informing the development of many strategies across the world (Huang et al., 2012). This drive according to Farahmandian, Minav & Afshardost (2013) is sustained by the knowledge that students are the main customers of universities hence, satisfying their needs and expectations is vital for survival in a competitive market. Satisfying student needs also, helps universities to internationalize as well as generate the much-needed additional income from

overseas fee-paying students, for example (Arokiasamy, 2012; Mda, 2012). Thus, the question of whether students are satisfied or dissatisfied with the university they are attending is important for their progression and willingness to study in the same university or recommend it to others. This is so, given that, it is only a satisfied population of students that would continue their education in the same university and/or give a continuous positive word of mouth to prospective students (Munteanu et al., 2010). Failure to recognize and satisfy students' expectations could,

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therefore, results in a reduction in student numbers. Most universities have recognized this need and are placing greater emphasis on meeting the expectations of the student in order to satisfy them.

Satisfaction generally refers to a feeling of pleasure or disappointment resulting from comparing perceived performance with expectations (Kotler & Keller, 2016). Students' satisfaction, however, specifically, refers to a short-term attitude resulting from an evaluation of student's educational experience with university services and facilities during the period of study (Weerasinghe & Fernando, 2017). Carey, et al. (2002) further describe student satisfaction as a positive antecedent of student loyalty - a multidimensional process influenced by different factors.

Many studies both inside and outside Africa have tried to identify factors influencing student satisfaction in higher education. For example, Walker-Marshall and Hudson (1999) point out that Grade Point Average (GPA) is the most influential factor affecting student satisfaction. Personal factors such as age, gender, and preferred learning style; institutional factors including the quality of instructions, promptness of instructor's feedback, quality of lecturer-student relationship, interaction with fellow students, course content and learning materials, the flexibility of the curriculum, university status and prestige and independence have all been associated with student satisfaction (Douglas et al., 2006; Palacio, MAppleton-Knapp & Krentler, 2006). Wilkins & Balakrishnan (2013) further argue that student satisfaction is greatly influenced by the quality of a lecturer-student relationship, interaction with fellow students, course content and learning materials.

The conceptual framework in this study includes the different scholars have used different models to assess students' satisfaction with higher education. The most widely used is the SERVQUAL, developed by Parasuman in 1985. The SERVQUAL questionnaire is generally designed to measure service quality and customer satisfaction in a business environment.

Though widely applied, it is often criticized in education because, most universities especially, government universities are non-profit service institutions. Besides, student satisfaction in the university environment is influenced by multiple factors of which, service quality is just an aspect.

Another model is Keaveney and Young's (1997), satisfaction model which measures the impact of college experience on students' satisfaction along with faculty services, advising staff and class type. However, the model is largely ignored because of its narrowed variables. Alves and Raposo's students' satisfaction model developed in 2010 presents student satisfaction as determined by an institution's image, student expectations, perceived technical quality and value, and functional quality. The model further illustrates student loyalty and word of mouth as the main antecedents of satisfaction. Simply put, the more students' satisfaction upsurges, the more students become psychologically bound to their universities and their activities. They, therefore, become more committed to spreading good information about their universities to friends, relatives, prospective students and interested parties by the word of mouth. The main criticism of this model, nonetheless, is that it largely ignores the main functions of a university i.e., teaching and learning.

For this study, the College Student Experiences Questionnaire (CSEQ) based on Pace's (1975) model of student satisfaction is chosen. The instrument is based on the simple premise that the more effort students make in using the resources and opportunities available in an institution for their learning and development, the more students benefit. Pace coined the term quality of effort to describe this unique interaction between students and their campus environments. Interestingly, quality of effort is linked with student academic achievement, satisfaction and loyalty/persistence. Hence, the instrument specifically, asks how often students have done or experienced a particular event during an academic year. The areas of interest include extracurricular activities, campus life, interaction with staff and other

students and opinions about the institution/loyalty (Gonyea *et al.*, 2003). The choice of this model and its instrument was considered appropriate because, the information they gather helps staff to improve the conditions under which they carry out their core mandate of teaching and learning (Siming *et al.*, 2015). Also, the focus of this model and its instrument

are in line with the overall purpose of this study - to improve the quality of student experience in African universities. Figure 1 conceptualizes the main ideas selected from Pace’s model for the study. In all, the following two factors were selected as influencing student satisfaction and loyalty: Student relationships and university facilities.

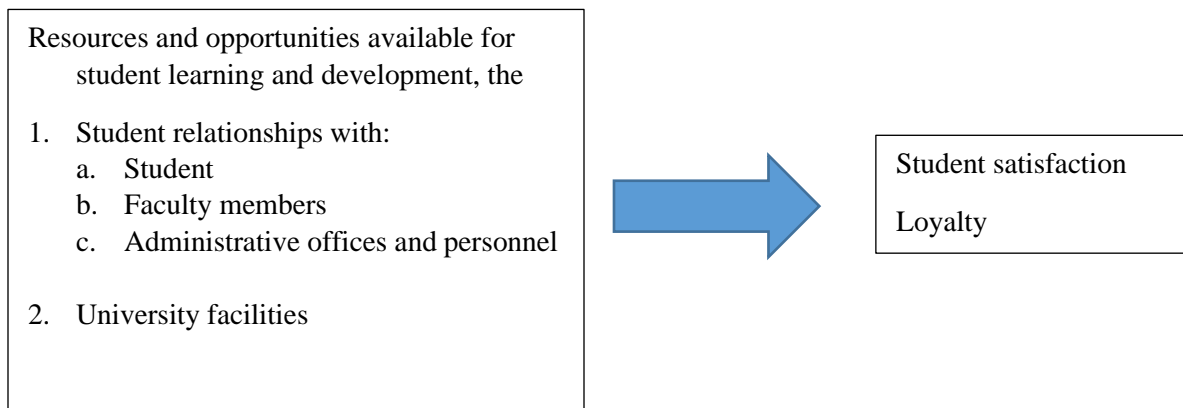


Figure 1: The Conceptual Framework for the Study

In Africa, Mwiya *et al.* (2017) applied the service performance (SERVPERF) model in the context of Zambian universities. The study examined the influence of each service quality dimension on overall service satisfaction and behavioural intentions in terms of loyalty and positive word of mouth using 656 final-year undergraduate students. The findings indicated that service quality performance dimensions (tangibility, reliability, responsiveness, empathy and assurance) were each positively related to overall student satisfaction. In Tanzania, Ogunnaike, Tairat & Emmanuel (2014) examined the effect of service quality (SQ) dimensions on students’ satisfaction in higher education. A cross-sectional approach using a questionnaire survey involving 200 students was used at the college of Business Education, Dodoma Campus. To estimate the overall service quality (SERVQUAL) index score, the difference in perceptions and expectations (P – E) was computed. The results showed that the tangibles, reliability,

empathy and assurance have a negative effect on students’ satisfaction.

This study, therefore, set out to examine how students’ experiences with faculty members, other students and university facilities relate to their satisfaction and loyalty. The focus was to understand how these factors affect student satisfaction and loyalty in two African universities, for the purpose of improving educational quality. While the present study is new in the context of both Ghana (GHU1) and Rwanda (RWU2), it is also important as a way of improving our strategies for attracting students. The idea of attracting students is cherished by almost every university in the world. However, for African universities, it is quite new. Indeed, the norm has been for Africans to become international students in other countries outside Africa. However, globalization and its competitiveness are currently making more and more African universities realize the need to attract both local and international students. Besides, regardless of

the quantity of research done, only limited literature is available on student satisfaction in the Ghanaian and Rwandan higher education systems. Besides, most studies in Africa as shown above, have focused on Service quality models. The desire to conduct this study, therefore, stems from the fact that earlier studies on student satisfaction have focused on service quality and, how satisfaction is related to academic achievement and retention (Azam, 2018; Gupta & Kaushik, 2018; Karatas *et al.*, 2016; Martirosyan, Saxon & Wanjohi, 2014). The results of this study, therefore, are expected to provide some valuable insight into student satisfaction and loyalty and how these could inform university priorities and agendas meant to increase student numbers. Additionally, the study is expected to address the knowledge gap in terms of models used to assess student satisfaction and their focus; by testing and validating a model in the context of the two universities.

Materials and Methods

The design of the study was quantitative given the empirical nature of the study and the quantitative data collected using the CSEQ. The targeted population was universities in Western (527) and Eastern Africa (51). The accessible population was Technical and Vocational Education and Training (TVET) Universities in these African regions.

The Sample and sampling technique

A multi-stage sampling technique was carried out given that, there were groups within the population. First, Ghana and Rwanda were selected from Western and Eastern Africa respectively based on their geographical locations and their common interest in TVET. For instance, the mission of Ghana's TVET system is to improve productivity and the competitiveness of its skilled workforce to raise the income capacity of people especially, women and low-income groups (MoE, 2008). Similarly, Rwanda in its Vision 2020, seeks to create a growing knowledge economy based on a skilled workforce that can compete in the region and the wider international arena (MINEDUC, 2010). This is because, the 1994

Genocide robbed the nation of a generation of the trained workforce (Williams, 2019).

Second, the two universities from Ghana and Rwanda respectively (GHU1 and RWU2), were selected based on their promotion of TVET programmes and the fact that there was a personal relationship between the author and staff of the university who was willing to help with the data collection in Rwanda. In the third and final stage, only students pursuing TVET programmes (mainly Engineering) were selected randomly. The number of Engineering students at GHU1 was 731 while those at RWU2 were 291. According to Israel's (1992) Table, the sample size (n) for a precision of 5% for a population of 700 is 255. Accordingly, a sample size of 250 was collected at GHU1. For a population less than 500, a sample size of 222 is recommended under an assumption of normal distribution though considered to be of low precision. However, only 105 participants were available for the study from RWU2. Thus, a total of three hundred and fifty – five (355) students were sampled from the two universities. This total sample consisted of 180 (50.70 %) females and 173 (48.73 %) males, in the age range of 18-42 years (average age was 22.83 years; SD = 2.52).

Data collection instrument (CSEQ)

The CSEQ was adapted for the study. In addition to sociodemographic data, the instrument focused on: (a) General student relationships within the universities (rated: Poor, neutral, helpful, good and excellent), (b) Student relationships with other students, faculty and administrative offices and staff (rated: Often, sometimes and never) and (c) Students use of campus facilities (rated: Very often=1, often=2, occasionally=3, never=4).

Data analysis

The responses of students were analyzed using descriptive statistics, Pearson correlation and Levene's test aided by the Statistical Package for the Social Sciences (SPSS). Levene's test (t-test), tested the null hypothesis that the variances within the two different universities were equal (i.e. the difference between the variances is zero). If Levene's test is

significant at $p \leq .050$, then we conclude that the null hypothesis is incorrect and that the variances are significantly different.

Results and Discussion

The results of the study are presented under the following headings:

1. Student relationships within the universities
2. Student experiences with university facilities
3. Student loyalty/the relationship between student satisfaction/facilities
4. Differences between the two universities

Student Relationships within the Universities

From Table 1, there appeared to be a good relationship among the students (42%); and between the students and the administrative staff (25%) and faculty members (20%) on average. Differences, however, were observed between the two Universities. For instance, whereas many (76%) RWU2 students had a good relationship with each other, the majority of students from GHU1 considered their relationship with other students to be poor (34%) or neutral (37%). The student's relationships with the administrative staff and faculty members were also, considered more helpful at RWU2 (28% and 24% respectively) than at GHU1 (24%, and 20% respectively).

Table 1: General Student Relationships within the Universities

Item	Other Students			Administrative Personnel and Offices			Faculty Members		
	GHU1	RWU2	Average	GHU1	RWU2	Average	GHU1	RWU2	Average
Poor	34.40	0.96	17.68	2.46	20.42	11.44	11.18	37.15	24.17
Neutral	36.80	0.00	18.40	46.60	26.88	36.74	40.55	24.14	32.35
Helpful	19.60	8.65	14.13	23.80	27.95	25.88	23.59	19.68	21.64
Good	9.20	75.97	42.58	27.14	22.49	24.82	23.43	17.11	20.27
Excellent	0.00	14.42	7.21	0.00	2.26	1.13	1.25	1.92	1.59
	100	100		100	100		100	100	

Regarding student interaction with faculty, the average view was that the students interacted with faculty on the following issues: courses/programme selection, project work, career plans and feedback. However, those who interacted *often* were on average 31 -63%. Those who interacted *sometimes* were 20-53% while those who never interacted were 8-27%. Differences between the two universities, nonetheless, existed in

areas such as working with faculty on some research projects and having discussions with faculty outside the classroom. (see Table 2). For instance, whereas many of the students in RWU1 worked with faculty on some research project (80%) or held discussions outside the classroom (84%), just about half that number, had a similar experience in GHU1 (42% and 35% respectively). See Table 3.

Table 2: Student Experiences with Faculty members

Item	Often			Some-times			Never		
	GHU1	RWU2	Average	GHU1	RWU2	Average	GHU1	RWU2	Average
Asked instructors for information about the course (e.g. grades, make-up work, assignments).	55.6	9.53	32.56	33.21	66.67	49.94	1.20	3.81	2.505
Discussed academic programmes or course selection with a faculty member.	60.00	33.0	46.50	32.00	8.25	20.12	8.00	8.74	8.37
Discussed class projects and semester exams with a faculty member.	52	13.34	32.67	38.00	69.52	53.76	10.00	17.14	13.57
Discussed career plans and ambitions with a faculty.	55.2	27.61	41.405	34.00	60.95	47.475	10.81	11.43	11.12
Worked harder as a result of feedback from a faculty member.	43.2	28.43	35.815	36.81	60.78	48.795	20.00	10.78	15.39
Participated in students' discussions outside the classroom with some faculty members.	34.8	79.8	57.3	41.60	16.35	28.975	23.60	3.85	13.725
Asked instructors for comments and criticisms about my academic performance.	42.4	20.22	31.31	46.00	38.46	42.23	11.62	41.35	26.485
Worked very hard to meet an instructor's expectations/ standards.	37.6	36.89	37.245	42.00	59.23	50.615	20.40	3.88	12.14
Worked with a faculty member on a research project.	42.4	83.81	63.11	42.00	9.52	25.76	15.2	6.67	10.93

Student Experiences with University Facilities

The average evidence regarding this points to regular utilization of the underlisted university facilities in

both universities: Lounges, centres, and recreational and sporting facilities. About 29 - 54% of students used these facilities *often*. Those who used them *sometimes* and *never* were 32 - 43% and 13 - 31%

respectively. Differences in specific areas, however, existed. For instance, while quite a good number of the RWU2 student often: improved their study or academic skills (70%); met other students for a discussion (66%); and attended a cultural or social event (60%) using a university facility, a few students from GHU1 utilized similar facilities for similar

purposes (37- 41%). The GHU1 students instead mostly, used university recreational facilities such as pools, wellness and fitness centres, equipment and courts. Some students (7 – 46%) from both universities surprisingly, indicated they never used any university facility. See Table 3.

Table 3: Student Experiences with University Facilities

Item	Often			Some times			Never		
	GHU1	RWU2	Average	GHU1	RWU2	Average	GHU1	RWU2	Average
Used a campus lounge to relax or study by yourself.	33.20	34.29	33.75	36.00	47.62	41.81	30.80	18.00	24.40
Attended a cultural or social event in the campus Centre or other campus location.	36.8	59.61	48.205	44.81	33.65	39.23	18.4	6.73	12.57
Met other students at some campus location (campus Centre, etc.) for a discussion.	41.2	65.71	53.455	37.2	25.71	31.455	21.2	8.58	14.89
Went to a lecture or panel discussion.	38.8	19.34	53.635	42.84	39.22	41.03	18.4	41.48	29.94
Used a campus learning lab or Centre to improve study or academic skills (reading, writing, etc.).	37.75	69.52	53.635	35.74	27.62	31.68	26.51	2.86	14.69
Used campus recreational facilities (pool, wellness and fitness, Equipment, courts, etc.).	43.2	21.15	32.175	33.21	51.92	42.565	23.6	26.92	25.26

Played a team sport (intramural, club, intercollegiate).	36.4	39.05	37.725	43.2	31.43	37.315	20.4	29.52	24.96
Followed a regular schedule of exercise or some recreational sporting activity using a university facility.	38.8	25.72	32.26	45.2	28.57	36.885	16	45.71	30.86

The relationship between student satisfaction and loyalty

The results of the study in this respect are presented in Table 4. On average few (13%) students were sure of their likeness to their universities. Many (80%) were unsure. Comparatively, however, students at GHU1 (25%) were fond of their university than those at RWU2 (1%). Almost all (96%) of the students from RWU2 left their likeness to probability. On the

possibility of attending the same university, the average response was probably, (70%). Only a few (15%) students on average, were sure of attending the same university when given the opportunity. Fifteen per cent (15%) of the students were not willing to do that at all. Between the two universities, however, more students (20%) from GHU1 showed loyalty than those from RWU2 (9%).

Table 4: The Students’ Loyalty to Their Universities

Item	How well do you like this university?			Would you attend this same university if you were now starting your tertiary education?		
	GHU1	RWU2	Average	GHU1	RWU2	Average
Definitely	25.2	0.95	13.08	20.00	9.29	14.65
Probably	64.8	96.19	80.50	68.4	71.73	70.07
Not at all	10.00	2.86	6.43	11.6	18.98	15.29
	100	100		100	100	

The correlation between the items ‘how do you like your university’ and ‘would you attend the same university again given the opportunity’ was positive for both universities through stronger for GHU1 ($r = .62, p = .000$) than for RWU1 ($r = .51, p = .000$). In other words, an increase in student satisfaction as

indicated by their likeness for the university, increases the students’ loyal to the university as suggested by their desire for attending the same university again when given the opportunity.

The differences between the two Universities

The p-value for the relationship between students, on the one hand, administrative staff and faculty members, on the other hand, were significant ($p < .050$) for both GHU1 and RWU2, $F(1,353) = 15.56$ and 6.573 respectively. The conclusion is that the variances were significantly different. However, for

the percentage of the relationship with other students, the variances between the two universities were not equal $F(1,353) p < 3.577$, *ns*. The conclusion is that the variances were not significantly different (see Table 5).

Table 5: Levene's Test

		Levene Statistic	df1	df2	Sig.
Relationships with other students	Based on Mean	3.577	1	353	.059
	Based on Median	1.393	1	353	.239
	Based on the Median and with adjusted df	1.393	1	253.744	.239
	Based on trimmed mean	3.036	1	353	.082
Relationship with administrative office	Based on Mean	15.555	1	353	.000
	Based on Median	5.355	1	353	.021
	Based on the Median and with adjusted df	5.355	1	343.819	.021
	Based on trimmed mean	13.121	1	353	.000
Relationship with faculty members	Based on Mean	6.573	1	353	.011
	Based on Median	4.911	1	353	.027
	Based on the Median and with adjusted df	4.911	1	107.406	.029
	Based on trimmed mean	5.086	1	353	.025

In the present study, GHU1, Ghana and RWU2, Rwanda students were examined in the light of their interaction with other students, administrative staff, faculty and university facilities as well as the extent to which these contribute to student satisfaction and loyalty. The findings of the study regarding the student interaction with other students, administrative staff, faculty and university facilities were mixed although, some differences existed between the two universities. A key finding of this study is was an increase in student satisfaction increases students' loyalty. This finding confirms Martha-Martha & Priyono's (2018)

earlier finding that student satisfaction has a positive influence on student loyalty. Kunanusorn & Puttawong (2015) similarly, concluded that student satisfaction is a major driver of student loyalty. This finding is important for universities intending to recruit and maintain students because as argued by Schertzer and Schertzer (2004) student satisfaction plays an important role in attracting new students and retaining them in higher education. Thus, the importance of satisfying students in higher education is stressed here.

The findings of this study also, confirm the arguments of Pace's that available resources and opportunities for students learning and development influence student satisfaction and loyalty in higher education. This view is evidenced by the fact that certain antecedent condition such as students' satisfaction with their interactions within the university and university facilities influence their loyalty. Shamsavar & Sudzina (2017) in an earlier study investigating the relationship between student satisfaction and loyalty among Danish universities similarly, stressed the importance of the following significant antecedents of students' satisfaction and loyalty: university image, perceived value and expectations. Teeroovengadam, et al. (2019) did a confirmatory test using 501 students from different higher education institutions in Mauritius and structural modelling that predicts student loyalty from university image, perceived value, satisfaction, and service quality. The study indicated that student satisfaction is influenced by antecedent conditions such as technical service quality, image, and perceived value.

There is no doubt that the results of this study have been insightful. Nonetheless, the study is only laying the grounds for improved studies in the future. This is because, the study is limited in that: only two universities in West Africa and East Africa, with a limited number of students, were selected for the study. Besides, the issue of student retention was not dealt with in more detail. Future studies may therefore address these issues to broaden our view on student satisfaction and loyalty.

Conclusions and Recommendations

This study has demonstrated that student satisfaction is directly related to students' loyalty. However, certain antecedent conditions including university facilities and student relations with administrative staff and faculty inform students' satisfaction and subsequently students' loyalty.

Recommendation

1. More opportunities for students to interact with other students and university staff should be strategically created for improved student satisfaction. These opportunities may include working on a research project together, counselling, sharing information etc.
2. It is additionally, recommended that the universities develop and/or implement norms, conventions and guidelines geared toward satisfying student expectations to attract and retain both local and international students.
3. Studies in the future are expected to expand the range of variables examined by this study as influencing student satisfaction and loyalty.

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Conflict of Interest

The author reports no conflict of interest.

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