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## The Problems of Contemporary Education

### Student Satisfaction and Session of Study as Predictors of Loyalty Among University Students

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#### Abstract

The continuous growth in the global economy has led to a snowballing request for higher education and an increase in the institutions that offer higher degrees. Therefore, higher educational institutions must create student satisfaction to sustain students' loyalty. This study examined the influence of students' satisfaction and study sessions on loyalty among students. Two hundred and eighty-two students were selected to complete Student Satisfaction and Loyalty scales. Hierarchical regression and multivariate analysis were used to analyse the data. Results indicated that student satisfaction positively correlates with student loyalty. All the components of student satisfaction were positively correlated with student loyalty. The level of loyalty was higher for weekend- and evening-track students compared to morning-session students. However, there was no significant difference in levels of student satisfaction between morning, evening, and weekend sessions. The current study adds to existing research on satisfaction and loyalty by analysing the many factors of satisfaction and their influence on student loyalty. The study employs the Dissonance Theory of Pleasure to explain how student services might undermine student loyalty. In today's competitive environment, increasing student happiness is critical when student loyalty is required to ensure the survival of higher education institutions in the global context. Thus, it is recommended that, for a university to survive, improving student satisfaction must be a priority to increase student loyalty.

**Keywords:** dissonance theory of pleasure, loyalty, satisfaction, session of study, students.

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## 1. Introduction

Every business institutions desire to achieve its goals and missions (Kwan et al., 2022). These goals and missions may include institutional growth, attracting more customers, increasing sales, accessibility of the product, and so on (Pop et al., 2019). However, the underlying aim of these goals and missions is to maximise profit. The extent of profit maximisation also depends on how satisfied customers are, which is directly related to customer loyalty (Chandra et al., 2018). One of the most imperative indicators of an efficient organisation is customer loyalty. Since there is a direct linkage between customer satisfaction and customer loyalty, it is apparent that any study that assesses customers' loyalty levels must integrate customer satisfaction (Todea et al., 2022).

According to Oliver (1999), customer loyalty is a "deeply held commitment to repatronise a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour" (p. 7). Loyalty among students deals with the feeling of affection or attachment to an institution and, for that matter, a recommendation to other potential students (Pop et al., 2020). The ability of the higher educational institution to entice new students and retain current ones depends on students' satisfaction (Kwan et al., 2022; Todea et al., 2022).

With the increased global competition of higher education institutions, an institution's ability to retain enrolled students is as important as enticing new ones. Since keeping existing students is less costly than attracting new ones, maintaining a long-term relationship with the existing students helps to reduce market costs (Mariutti, Giraldi, 2020). Additionally, an educational institution can gain some strategic competitive advantage if it strives to maintain long-term relationships with existing students (Kunanusorn, Puttawong, 2015). As indicated by Zhai (2022), the tendency for students to be loyal is due to the services students receive whilst in the university as students. The loyalty of students can also encourage constructive or pleasant word-of-mouth commendations from the students during and after their years of study in the institution (Arif et al., 2013).

Loyalty is related significantly to the level of satisfaction among customers (Farahmandian et al., 2015). According to Kaur and Bhalla (2018), customer satisfaction refers to a subjective summary judgement or a summary of cognitive and emotional responses after accumulative experiences with a specific product or service. In an educational context, student satisfaction can be referred to as the successful experience of learning outcomes and the student's perceptions of all the facets of the institution (Yan, 2017). Martirosyan (2015) also defined student satisfaction as the subjective assessment of the experiences and numerous outcomes associated with the services received as a student. This definition focuses not only on the learning accomplishments of the student but also on the likeness of the general student experiences.

Universities should strive to identify the facets of satisfaction and improve it since students' level of satisfaction is the unquestionable means by which the universities can maximise profit. According to Weerasinghe and Fernando (2018), academic institutions can achieve student satisfaction in general by understanding the various needs of the student and providing those needs to their satisfaction. Yan (2017) identified six elements or needs of student satisfaction. These are the image of the institution, academic facilities, faculty members (lecturers), university administrators, academic user fees, and extra-curricular activities.

The image of the institution is the summation of the beliefs, attitudes, and impressions that a student holds toward the institution (Yusoff et al., 2015). The perception of the student image of the university is built by the knowledge systems that ascend from feelings, extant experiences, and the feelings salvaged from the student's memory. An image has two elements: the functional and the emotional elements. The functional element deals with the concrete characteristics of the institution, and the emotional element also deals with the psychological components confirmed by attitudes and feelings toward the institution (Yan, 2017). An assessment of the image of an educational institution can help learn about the particular strengths the institution should highlight and the sort of information the institution should communicate to the public (Özdoğan, Akyürek, 2022).

Academic facilities deal with the physical facilities of an institution (Maksüdünov et al., 2016). Such facilities include laboratories, offices, libraries, classrooms, and other vital resources. Faculty members are the individuals who are responsible for reaching a course. In this study, faculty members refer to lecturers assigned a course to teach and award grades (Shahsavari, Sudzina, 2017). Examples of faculty members are full professors, associate professors, lecturers,

and assistant lecturers. Faculty members have regular interaction with the students. Due to this, how the students perceive them determines whether they will be satisfied or not (Yan, 2017). University administrators are members of the university who offer support and other administrative services to the university (Maksüdünov et al., 2016). University administrators are those responsible for officially enrolling and processing administrative operations relating to an individual's candidature (Al Hassani, Wilkins, 2022). An academic user fee is a fee the university authorities determine for students to pay. It includes all the other levies taken from the students for their membership as students. Students can enrol in an academic institution if they have the financial ability (Yan, 2017). The ability to pay academic user fees gives the impression of satisfaction, which promotes student loyalty (Shahsavvar, Sudzina, 2017). Extra-curricular activities do not fall part of the scope of a regular curriculum but are approved officially by the university authorities. They usually carry no academic credit. According to Todea et al. (2022), student loyalty relies on students' general satisfaction with the institutional context and other factors, including the institution's image, university administrators and lectures, academic user fees, and extra-curricular activities.

Moreover, the tendency to feel satisfied, which has been found to lead to students' loyalty to the institution, depends on the study session (Lee, 2017). The study session indicates the day and time students attend school (Kamran et al., 2022). Traditionally, the focus on higher levels of education has been in the mainstream in Ghana, where students go to school in the morning (Zeng, Wang, 2021). Due to technology and the need to learn whilst working, different sessions have emerged (Hodges et al., 2020). Common sessions in most higher institutions in Ghana are morning, evening, and weekend. Morning students refer to those who go to school at normal academic times of learning. These student school hours begin at 8 am and close at 5 pm from Mondays to Fridays. Evening and weekend sessions are ideal for individuals who prefer to study outside the normal working hours (Meguid, Collins, 2017). Evening students attend classes from 5 pm to 9 pm from Mondays to Fridays, while weekend students attend classes online or face-to-face on Saturdays and Sundays (Lee, 2017). Evening and weekend classes allow those working to gain additional qualifications whilst simultaneously working. Each session is associated with different interactions and experiences, influencing their loyalty and satisfaction (Mazirah et al., 2015).

## **2. Theoretical framework and literature review**

The theoretical underpinning of the study is the Dissonance Theory (Festinger, 1957). The Dissonance Theory suggests that "a person who expected a high-value product and received a low-value product would recognise the disparity and experience cognitive dissonance" (Festinger, 1957: 12). The expectations that are not confirmed create psychological discomfort or a state of dissonance which reduces the extent to which the individual will be loyal and continue to purchase the product (Xi et al., 2022). According to the theory, the post-exposure ratings mostly result from the expectation level. Dissonance Theory, therefore, argues that the satisfaction or dissatisfaction created by expectations determines whether an individual will continue to utilise the service or product and recommend the same to others.

Numerous studies exist on the correlation between customer satisfaction and customer loyalty and have indicated a significant positive relationship between customer satisfaction and customer loyalty (Alqurashi et al., 2019; Todea, 2022). According to Zhai (2022), numerous researchers proffer that the satisfaction of consumer significantly predicts their loyalty, which invariably leads to a higher profit. Eom and Ashill (2016) and Martirosyan (2015) also opined that there is a significant relationship between customer satisfaction and consumer loyalty. According to Farahmandian et al. (2013), a significant positive association exists between customer satisfaction and customer loyalty in Malaysia. As Farahmandian et al. (2013) explain, customer satisfaction is a means through which customers see themselves as more important and creates mutual rewards for customers to be loyal. However, few of the studies have concentrated on students as customers. This means that few of these studies have concentrated on students. The few studies that focused on students indicated a positive relationship between student satisfaction and student loyalty (Maksüdünov et al., 2016; Weerasinghe & Fernando, 2018).

Moreover, few studies have assessed the impact of student satisfaction on student loyalty. A study by Yan (2017) shows that the components of student satisfaction influence student loyalty. Among the components of student satisfaction, satisfaction with the image of the institution predicted a significantly higher amount of variance to student loyalty than the other components of satisfaction. Similarly, Al Hassani and Wilkins (2022) indicate that satisfaction with the image and the non-teaching

activities significantly predict students' loyalty. Yet, other components (non-teaching staff, lecturers, work itself, promotion, and supervision) relate moderately to students' loyalty.

Concerning the sessions of study, Tsedzah and Obuobisa-Darko (2015) found that students who deviated from the traditional morning session were more satisfied and demonstrated a higher level of loyalty than the morning sections. Moreover, Andoh et al. (2019) assessed the relationship between the traditional morning section and online classes on satisfaction among students. The findings indicated that those who attended online classes were more satisfied due to the flexibility and occupation than the morning session. However, the study by Amponsah et al. (2018) did not report any significant effect of study sessions and student loyalty and satisfaction.

Moreover, even though previous studies have assessed the association between student satisfaction and student loyalty, there is a paucity of studies on the relationship between the components of satisfaction among students and loyalty (Alqurashi et al., 2019; Kwan et al., 2022). Moreover, the focus has been on mainstream students, not evening and weekend sessions. Based on the above, the study contributes to the existing literature by achieving two objectives. First, the study seeks to assess the elements of satisfaction on loyalty among students, and second, the study attempts to determine the session of study on satisfaction and loyalty among students. Extant literature conspicuously lacks enough empirical research in this regard. This study will thus provide some substantial contribution to the available literature.

Consequently, the researchers stated the following research hypotheses:

1. The combined elements of student satisfaction will envisage significant student loyalty.
2. Each component of student satisfaction will account for a significant amount of student loyalty.
3. There will be a significant difference in satisfaction between students in the morning, evening, and weekend sessions.
4. There will be a significant difference in student loyalty between students in the morning, evening, and weekend sessions.

### 3. Method

#### 3.1. Research approach and design

The study was a quantitative survey that utilised a cross-sectional design. The design was appropriate as it allowed a large amount of data to be collected at a specific time.

#### 3.2. Sampling and sample size

The population comprises students attending Ghana Communication Technology University (GCTU) in the Greater Accra Region of Ghana. The GCTU is a newly flexed public university in Ghana with a population of fewer than 2000 students. Because of the competition among universities in Ghana, the tendency for the student in the university to be satisfied will help attract more students due to their recommendations. We used the purposive sampling method to select 300 participants. This sampling technique was suitable as it guided researchers to sample who met our inclusion criteria. This technique assumes that "researchers' knowledge about the population can be used to hand-pick sample members" (Sarfo et al., 2022: 59).

Out of the 300 questionnaires distributed, 282 were retrieved, giving a response rate of 94 %. The majority (83.3 %) of the respondents were females, and the age of the respondents ranged from 21–43 years. The respondents were also undergraduate students from level 100 to level 400, with 29.4 % in the morning session, 37.9 % in the evening session, and 32.7 % in the weekend session (refer to Table 1).

**Table 1.** Demographic characteristics of the respondents (n = 282)

Variables	Category	Frequency	Percentage
Gender			
	Males	47	16.7
	Females	235	83.3
Age			
	Below 20 years	42	14.9
	20 – 30 years	93	33.0
	31 – 40 years	86	30.5
	At most 41 years	61	21.6

Level of Study			
	Level 100	48	17.0
	Level 200	30	10.6
	Level 300	80	28.4
	Level 400	124	44.0
Session of Study			
	Morning	83	29.4
	Evening	107	37.9
	Weekend	92	32.7

### 3.3. Measures

All the constructs were measured using questionnaires. Aside from the questionnaires on the demographic characteristics sought for the study session, two distinct questionnaires were used. The questionnaires are described beneath:

**Students Satisfaction:** The Students Satisfaction Scale (SSS) was developed by Yan (2017) to assess how university students are satisfied with the various facets of the university. The questionnaires assess six elements of student satisfaction. These six elements encompass a comprehensive evaluation of student satisfaction. The SSS is a 15-item scale that measures the six elements; university image, academic facilities, lecturers, non-teaching staff, facility User Fee, and extra-curricular activities. Responses to the six elements are rated on 5-point response options ranging from “Strongly Disagree” to “Strongly Agree”. The scale has a Cronbach’s alpha of .91. A sample item is “*I am offered an opportunity to participate in a variety of extra-curricular activities to share my own interests with others.*” A higher score indicates a higher level of student satisfaction.

**Student Loyalty:** The loyalty of students was also assessed using Student Loyalty Scale developed by Todea et al. (2022). The scale consists of an 8-item measure soliciting students’ motive of recommending the institution to others based on 4-point Likert scale options ranging from “Strongly Disagree” to “Strongly Agree”. Todea et al. (2022) found the scale very reliable, producing a Cronbach alpha of .89. The questionnaires were modified to suit students’ satisfaction with their academic institution. A sample item is “I will encourage friends and relatives to attend university”. A higher score on the scale indicates higher levels of student loyalty.

### 3.4. Procedure for data collection

The face-to-face method was adopted to get a higher response rate. In this case, the researcher visited the prospective respondents and their informed consent was sought. When they were granted permission to take part in the survey, the questionnaires were given to them, and those with enough time completed them immediately. Those who did not have enough time to respond to the questionnaires were left in their custody, and the researcher visited them the following day to collect the questionnaires. The researchers used approximately two weeks to collect data from the respondents.

### 3.5. Analysis of data

The Statistical Package for Social Science (version 24.0) programme was used to analyse data. Descriptive analysis of data and intercorrelations among the variables were first established before the hypotheses were analysed using multivariate and regression analyses.

## 4. Results

### 4.1 Descriptive analysis

Table 2 shows the variables’ nature that helps interpret the results. The key findings in the table include the descriptive, skewness, and kurtosis showing that the constructs are normally distributed.

**Table 2.** Descriptive statistics of the study variables (N = 282)

Variables	Min	Max	Mean	SD	Skewness	Kurtosis
General Satisfaction	18.00	35.00	23.93	9.23	-.59	.03
Image	5.00	16.00	8.27	4.53	.43	.08
Faculty	4.00	15.00	11.97	4.01	.72	.26

User Fees	2.00	5.00	6.60	2.83	-.68	.49
Facilities	2.00	16.00	7.64	3.85	.61	.50
Administrators	2.00	8.00	5.50	1.87	-.67	.35
Extra-curricular	3.00	11.00	7.93	3.90	-.13	-.45
Loyalty	9.00	31.00	22.04	10.12	-.01	.56

The normality of the data was assessed using skewness and kurtosis. Tabachnick and Fidell (2001) indicated that a variable is normally distributed if the kurtosis and skewness values range from -2 to +2. From the analysis, all the values of kurtosis and skewness for the measures (i.e., general satisfaction, satisfaction with image, faculty, user fees, facilities, administrators, extra-curricular activities, and student loyalty) ranged between +1 and -1. This means all the measures are normally distributed and can be analysed using parametric tests.

The total scores of the constructs were obtained after adding the total number of items for the 282 respondents. As revealed in the table, the mean level of student satisfaction ranged from 18.00 to 35.00 ( $M = 23.93$ ,  $SD = 9.231$ ). With a mean score of 25.50 indicating an average level of satisfaction, the mean score of 22.18 obtained in this study shows that the students generally have a lower level of satisfaction. Moreover, the respondents had a total score ranging from 9.00 to 31.00 ( $M = 22.04$ ,  $SD = 10.12$ ). With a mean score of 19.5, indicating an average level of loyalty, the score ( $M=30.04$ ) obtained shows that the students are loyal to the university, although they have lower satisfaction levels.

The mean scores of student satisfaction with the image of the university ranged from 5.00 to 16.00 ( $M = 8.27$ ,  $SD = 4.53$ ), and their satisfaction with faculty members ranged from 4.00 to 15.00 ( $M = 11.97$ ,  $SD = 4.01$ ). Students' satisfaction with academic user fees ranged from 2.00 to 15.00 ( $M = 6.60$ ,  $SD = 2.83$ ). The total score of satisfaction with the academic facilities ranged from 2.00 to 16.00 ( $M = 7.64$ ,  $SD = 3.85$ ), and that of satisfaction with administrators ranged from 2.00 to 8.00 ( $M = 5.50$ ,  $SD = 1.87$ ). Moreover, satisfaction with extra-curricular activities ranged from 3.00 to 11.00 ( $M = 7.93$ ,  $SD = 3.90$ ). Assessing these parameters, the mean level of satisfaction with administrators is the lowest. This means that students are less satisfied with administrators than with other satisfaction elements.

#### 4.2. Correlation coefficient showing the relationship between the variables.

The test for descriptive statistics was followed with a determination of the relationships between the underlying variables. Results are shown in Table 3.

**Table 3.** Correlation matrix showing the nexus between underlying variables

No.	Variables	1	2	3	4	5	6	7
1.	Image	.-						
2.	Faculty	.04	-					
3.	User Fees	.28**	.23*	-				
4.	Facilities	.25**	.17*	.30**	-			
5.	Administrators	.22*	.35**	.49**	.22*	-		
6.	Extra-curricular	.27**	.20*	.30**	.32**	.18**	-	
7.	General Satisfaction	.57**	.42**	.38	.39**	.13*	.31**	-
8.	Loyalty	.27**	.49**	.43**	.45**	.36**	.22**	.41**

Note: \* $p < .05$ , \*\* $p < .01$

The Pearson correlation coefficient established the inter-correlation between all the essential variables. It is important noting note that the student satisfaction construct had six elements (satisfaction with the image of the university, faculty members, academic user fee, facilities, administrators, and extra-curricular activities) (Yan, 2017). These elements were assessed as a composite variable and also individually.

Based on the results illustrated in Table 3, the relationship between all the variables is positive and significant except the relationship between satisfaction with the image of the university and the faculty members. The relationship between student satisfaction as a composite variable and student loyalty is significantly positive ( $r = .41$ ). With the elements of satisfaction, satisfaction with the faculty members had a significantly higher relationship with student loyalty compared to the other aspects of satisfaction.

#### 4.3. Hypothesis testing

**H1:** The combined elements of student satisfaction will envisage significant student loyalty. This hypothesis was analysed using simple regression analysis, as shown in Table 4.

**Table 4.** Regression coefficients of student satisfaction as a predictor of student loyalty

Model	B	Std. Error	F	$\beta$
(Constant)	5.371	5.286		
Satisfaction	.449	.095	22.394	.410**

Note:  $R^2 = .168$ , \*\* $p < 0.01$

As demonstrated in Table 4, student satisfaction positively correlated with student loyalty ( $\beta = .410$ ,  $p < .01$ ). Student satisfaction accounted for 16.8 % of the variance in student loyalty ( $R^2 = .168$ ,  $F_{(1, 282)} = 22.394$ ,  $p < .01$ ). This confirms the first prediction that the combined elements of student satisfaction will envisage a significant amount of student loyalty.

**H2:** Each element of student satisfaction will envisage a significant amount of student loyalty. Multiple regression was used to analyse this prediction, with the results in Table 5.

**Table 5.** Regression model of the components of student satisfaction as predictors of student loyalty

Model 1	B	SEB	$\beta$	t	p
(Constant)					
Image	.177	.589	.609	3.699	.001
Faculty members	.624	.165	.279	3.781	.001
User fees	.204	.600	.342	2.007	.047
Facilities	.528	.191	.209	2.769	.007
Administrators	.320	.205	.124	1.559	.022
Extra-curricular activities	.528	.202	.201	2.616	.010

Note:  $R = .513$ ,  $R^2 = .481$ ,  $F_{(6, 275)} = 18.309$

The model of the impact of the elements of student satisfaction as predictors of student loyalty was found to be significant ( $F_{(6, 275)} = 18.309$ ,  $p < .01$ ) with the six components of student satisfaction (satisfaction with the image of the university, faculty members, academic user fee, academic facilities, administrators, and extra-curricular activities) accounting for 48.1% ( $R^2 = .481$ ) of the variance in student loyalty (see Table 5).

With the individual elements, satisfaction with the image of the university ( $\beta = .460$ ,  $t = 6.832$ ,  $p = .01$ ), with the faculty members ( $\beta = .460$ ,  $t = 6.832$ ,  $p = .01$ ), academic facility user fees ( $\beta = .266$ ,  $t = 3.742$ ,  $p < .05$ ), facilities ( $\beta = .191$ ,  $t = 2.702$ ,  $p < .01$ ), administrators ( $\beta = .184$ ,  $t = 2.707$ ,  $p < .01$ ) and extra-curricular activities ( $\beta = .114$ ,  $t = 2.032$ ,  $p < .01$ ) all accounted significantly to student loyalty. This means that all the components of student satisfaction contribute significantly to the change in student loyalty. This confirms the prediction that each element of student satisfaction will envisage a significant amount of student loyalty.

**H3:** Student satisfaction will be significantly different between students in the morning, evening, and weekend sessions.

**H4:** Student loyalty will significantly differ between students in the morning, evening, and weekend sessions. These predictions were also analysed with the multivariate analysis of variance with the results demonstrated in Table 6 and Table 7.

**Table 6.** Impact of the session of study on student satisfaction and loyalty

Variable	Morning Mean (SD)	Evening Mean (SD)	Weekend Mean (SD)	F	df	p
Student Satisfaction	22.21 (7.70)	21.13 (10.76)	25.97 (7.67)	2.967	(2, 271)	.056
Student Loyalty	20.21 (8.84)	23.44 (10.58)	24.91 (8.62)	8.151	(2, 271)	.001

From [Table 6](#), the study session has no significant impact on students' level of satisfaction ( $F_{(2, 271)} = 2.967$ ,  $p = ns$ ). This means students in the morning session ( $M = 22.21$ ,  $SD = 7.70$ ), evening session ( $M = 22.13$ ,  $SD = 10.76$ ), and weekend session ( $M = 25.97$ ,  $SD = 7.67$ ) perceive equal levels of satisfaction. Thus, the third prediction that there will be a significant difference in satisfaction between students in the morning, evening, and weekend sessions was not supported.

However, the session of study has a significant influence on student loyalty ( $F_{(2, 271)} = 8.151$ ,  $p < .05$ ). This supports the fourth prediction that there will be a significant difference in student loyalty between students in the morning, evening, and weekend sessions. Multiple comparisons were conducted to determine which group means differ significantly (see [Table 7](#)).

**Table 7.** Multiple comparisons of sessions of study on student loyalty

No.	Study session	1	2	3
1.	Morning	-	3.23*	4.70*
2.	Evening	-	-	1.47
3.	Weekend	-	-	-

Note: \* $p < .05$

Assessing the multiple comparison results shown in [Table 7](#), the mean score of loyalty among the students in the morning session ( $M = 20.21$ ,  $SD = 8.84$ ) is significantly lower than the evening session ( $M = 23.44$ ,  $SD = 10.58$ ) and weekend session ( $M = 24.91$ ,  $SD = 8.62$ ). However, no significant difference exists in the student loyalty score between morning, evening, and weekend sessions. This means the morning session students are less loyal to the university than the evening and weekend session students.

## 5. Discussion

The study's results designated that student satisfaction has a significant positive correlation with student loyalty. This means that an increase in student satisfaction levels tends to increase student loyalty. This finding is consistent with extant studies that examined the nexus between student satisfaction and student loyalty ([Alqurashi et al., 2019](#); [Mariutti, Giraldi, 2020](#); [Todea, 2022](#)), which indicated a significantly negative association between student satisfaction and student loyalty. The finding can also be explained by the Dissonance Theory ([Festinger 1957](#)), which suggests that a feeling of dissatisfaction hampers loyalty, and dissatisfaction comes about when expectations are not met. Students have certain expectations before deciding even to buy admission forms. When these expectations are not met, their level of satisfaction decreases, which is likely to hamper the level of loyalty.

Again, the study found that all the components of student satisfaction predict student loyalty. Consistent with the results of this study, an overall body of literature on students has supported the positive relationship between elements of satisfaction such as the image of the university, academic facilities, user fees, and faculty members of student loyalty ([Al Hassani, Wilkins, 2022](#); [Maksüdünov et al., 2016](#); [Weerasinghe, Fernando, 2018](#)). The finding also agrees with [Yan \(2017\)](#) study, which revealed that the components of student satisfaction (satisfaction with image, faculty, user fees, facilities, administrators, extra-curricular activities, and student loyalty) are associated significantly with student loyalty.

Moreover, the researchers also predicted a significant difference between the study sessions and student satisfaction and loyalty. There was no significant difference between the study sessions (morning, weekend, and evening) and student satisfaction which agrees with previous literature ([Amponsah et al., 2018](#); [Tsedzah, Obuobisa-Darko, 2015](#)). However, the findings indicated that evening and weekend students were likelier to stay loyal to the university than in the morning

session. This finding is consistent with extant literature indicating that students in the other sessions are more likely to recommend a school to others than in the morning session. As explained by Andoh et al. (2019), students in the evening and weekend sessions are always working, so they can meet their friends and, therefore, stay loyal by recommending the university to them as it is likely that they may be looking for possible flexible opportunities to school. Moreover, students who attend the morning session have their mates attending other universities. They will not recommend the university to them when they consider the fees students pay and the services they receive.

### **6. Practical and theoretical contributions**

The study makes some contributions to the existing body of research in the area of student loyalty and satisfaction. Although we studied the nexus between satisfaction and loyalty, it takes a different dimension by using students as the population. Moreover, to the best of our knowledge, as researchers, no study has assessed the relationship between satisfaction and loyalty among students in a Ghanaian university. Cultural dimensions are significant to consider in the context of satisfaction and loyalty since they significantly influence students' loyalty. Thus, there is a significant difference in the factors that affect student satisfaction and loyalty in sub-Saharan African and European countries.

Moreover, Yan (2017) has called for replication in his study of satisfaction and loyalty involving students. The current study also contributes to the satisfaction and loyalty literature by investigating the different elements of satisfaction and its impact on student loyalty. The study invokes the Dissonance Theory of Satisfaction to explain how the services received by students can hamper student loyalty. In such a competitive context nowadays, where the loyalty of students is needed to enhance the survival of tertiary institutions in Ghana, strengthening student satisfaction is very necessary nowadays. The findings can also have imperative practical implications for the university's management. Since it emerged that enhancing the satisfaction of students influences their level of loyalty positively, to strengthen student loyalty, the management of the university must first enhance student satisfaction, which will go a long way to improving the long-term relationships between the university and the students. This will influence loyal students always to give a good testimony about the university and recommend the university to others. Therefore, enhancing student loyalty requires an understanding of the factors that affect satisfaction, the lack of which has unpleasant sequels for both students and the university.

Secondly, to build a long-lasting relationship with all the educational stakeholders, the university must focus on developing their trust as part of the relationship. The long-term relationship will be damaged if there is a lack of trust in the institution (Alqurashi, 2019). Moreover, knowledge of the various dimensions of satisfaction can assist the university's management in providing a better service. The study found that some students were not satisfied with some of the elements of the university that determine student satisfaction – for example, the mean satisfaction score towards the administrators and the academic user fees. So, the students are not satisfied with these aspects of the universities. Therefore, every facet of the university needs to be improved. Lastly, the session of the study was found to have an impact on loyalty. The evening and weekend students were more loyal than the morning students. Therefore, the university's target should be evening and weekend students since they will lead to more recommendations and possibly improve the institution's image to attract competent students.

### **7. Limitations and conclusion**

This study has some limitations that invariably need to be addressed. The population was restricted to only students of GCTU. This means that it excluded all the other public and private higher institutions in Ghana. Thus, the use of data from a simple source paves room for the same method bias. It would have been better if student satisfaction and loyalty were investigated across different universities in Ghana so that the findings could be generalised and policies and interventions could benefit the larger population of institutions in Ghana. Future studies need to collect data from multiple sources (different universities).

Moreover, the study employed a descriptive correlational study. Thus, causal inferences cannot be made. Even though the study found a significant influence of student satisfaction on student loyalty, the direction of causality cannot be established. The use of a longitudinal survey can help to establish causality.

In conclusion, this study employed a cross-sectional survey that assessed the extent to which student satisfaction and study session can affect student loyalty. The findings of the study suggested that student satisfaction has a significant impact on student loyalty. The session of study also had a significant impact on student loyalty, with weekend and evening session students reporting a higher tendency to be loyal to the university. Contrary to the prediction, the study session had no significant impact on student satisfaction. Based on this, the management of the university should identify relevant factors of student satisfaction and loyalty based on their significance in the present context and allocate resources to improve the image and status of the university to entice students and get more funds. Furthermore, identifying and fulfilling students' demands across all study sessions is important to satisfy students and make them loyal to improve the university's survival, recruitment drive and growth.

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### 10. Competing interests

The authors declare no competing interests.

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