An Empirical Relationship between Student Satisfaction with Teaching Methodology and College Environment in Pakistan

Yasir Ali[1], Aqsa Nadeem-ullah[2]

Department of Statistics, Minhaj University, Lahore, Pakistan

Email: yasir.ali6624080@gmail.com

Department of commerce, Punjab Group of Colleges (Chawinda),

Sialkot, Pakistan.

Email: axanadeemullah@gmail.com

Abstract

The purpose of this study was to examine the relationship between student satisfaction with teaching methodology and college environment. This paper focuses on the determinants of student satisfaction and retention in a college that are assumed to the experience of student`s in the college. A well structured questionnaire was used to measure the satisfaction of students around three factors namely: teaching methodology, student's satisfaction, college environment. The sample size of the study consisted of 70 graduate and undergraduate students (22 males and 48 females) at Punjab group of colleges Chawinda campus. Students satisfaction is one of the result indicators established , based on students opinions to measure the quality level of study in Pakistan`s college system . Multiple linear regression and Pearson correlation analysis performed to check the relationship between these three factors. T value of the test statistic significant and resulted that teaching methodology much effected for the satisfaction of students. Implications, limitations, and suggestions for the purpose of future research are discussed.

Keywords: Student satisfaction, teaching methodology, college environment, multiple linear regression, Correlation, ANOVA.

1. Introduction

"The satisfaction of the student is all about college experience and the student feels the quality and importance of education when he gains education from educational institutions."

Education sector is expanding very fast all over the world in recent year. Students` satisfaction is a short-term attitude resulting from an evaluation of student`s educational experience, services, and facilities .Now a days the important goal of education is to maintain and improve student`s s satisfaction. The still limited number of research suggests that student satisfactions are a very complex concept, comprising of various, measurement (Marzo-Navarro et al. 2005ab; Richardson, 2005). The student satisfaction is being form continually by repeated the experience in campus life. Broad institutional image can affect student satisfaction. (e.g., Arambewela& Hall, 2009). The satisfaction of students is of upmost importance because it helps in the betterment of institute and for further goals .The increase in educational institutes causes an intense competition so measuring the satisfaction level of students is a basic need for the survival of educational institutes. Many researches have been carried out studying the factors which can affect the satisfaction of students. Higher education institutes are mainly focusing on satisfying and identifying the needs of their students. Such factors including faculty performance, classroom environment, academic achievements, institution reputation, and teaching methodology are involved in satisfying students to stick to their institutes. Satisfaction Is necessary because it influences the student`s level of motivation as it is an important psychological factor in success .In this competitive environment only those institutions can excel which are providing high quality education and constructive environment to their students, since these factors can influence their choice of admission. Such factors can easily satisfy to their institutions and can affect their decision to attend. The Sloan Consortium defines student satisfaction as: "The students are successful in the learning experience, and are glad with their experience" (Moore, 2009,

p-74). During a survey about satisfaction of students in 11 countries of Europe by Garcia-Aracils (2009), it was examined that in spite of difference in educational world the satisfaction level in these countries is fixed. It seems the factor of much influence like contact with fellow students, courses, equipment, libraries; tutorial ship standards and study materials have great impact.

Sweeny and Ingram (2001) define student satisfaction as "The perception of the enjoyment and achievement in the learning environment. Aldridge and Rowley (1998) articulate that according to students point of view , good quality education provides better learning opportunities and also advice that the levels of satisfaction and dissatisfaction strongly affect the student`s success or failure in the learning. Satisfaction is a well – researched topic in both academic and non-academic settings, in the academic settings, the student`s satisfaction data helps the colleges to make their curriculum more efficient. Student satisfaction is essential component for student`s motivation toward better performance.

This study refers that, In order to assess and maintain satisfaction of students in college providers must, first analyses the factors that are associated with satisfaction. This study find that building conditions such as electricity ,air conditioned rooms, proper security, proper cafeteria significantly positively related to student outcome, including performance and attitude. It is important to analyse the impact of different environment features to ensure that students and institutions receive the greatest benefit from spending on college environment. There have been comparatively few studies that have examined the impact of environment at institutions of higher learning Siegel (2003). Finally college environment affect the student evaluation of teaching. The study also find that teaching methodology such as teacher`s method, behaviour, level of knowledge, understanding, interaction, with students, motivational lectures, discipline in the class related to student satisfaction. Satisfaction

appears to be most linked with aspects of the teaching quality Binge, Moliner, & Sanchez (2003), so we can say that teaching method is one of the important factors of student satisfaction. This study also find that the student satisfaction such as satisfaction with syllabus coverage, teacher`s behaviour, proper communication, study schedule, teacher`s education, fee concession, also related to student outcome including their performance and attitude. Oliver and Desarbo (1998) defines that student satisfaction is " The favourability of a student`s subjective assessment of the numerous outcome and experiences related with education and being shaped continually and repeated experience in campus life. So it is very necessary to analyse the student satisfaction features to satisfy students with their institute. Such factors can satisfy students to their institutions. So these factors play a vital role in the field of education to satisfy a student.

There are certain issues that students face during education and a cause of students dissatisfaction, for example no proper classrooms, lack of technology, lack of educated and well trained teachers, unhealthy environment, lack of learning facilities, lack of proper security, lack of communication, etc. These issues creates barriers in the way of students satisfaction. With these issues no institute can succeed in the field of education. The educational institution should address these issues in a better way so that the students can be satisfied with their institution.

In recent years, Pakistan is working to improve the education system. Higher education in Pakistan is building many educational institutions .Many institutions are being set up to satisfy the students .Much work is being done on education in which the higher education is playing an important role. The cost of providing education has gone up because students are being provided with better learning instruments. This is not possible without the efforts of the government, because the government of any country plays an important role in maintaining

its educational institution. A country must strengthen its education system so that it can satisfy its students. No country can be successful if its people are not educated. Only an educated country can make its place in the world. Institutions must have technology so that they can provide better education to the students. The HEC is playing an essential role in this way. The HEC is responsible for formulating the education policies, establishment of new institutions, and to meet the international education standard. The higher education commission is not only educating the students but also trying to meet their educational needs.

The higher education commission is working at a high level to promote education. The higher education commission is working on educational issues in Pakistan. The higher education commission is trying to move forward with the world in the field of education. Many educational institutions are trying to improve their institutions as the educational institutions are trying to outdo each other. The economy of a country is very important to meet the educational needs of that country. It is being worked on in Pakistan. An educated person of any country becomes the sources of its development all over the world because he will work for his country after getting the education. For any country to be successful, its people must be conscious and free-thinking, and for that education must be the first focus of this country. For a developing country like Pakistan it is a positive sign to succeed in education and for industrial growth, that the institutions are meeting the demand of the market for qualified individuals with specialization in various fields. So it is very important to satisfy the student as they are a valuable asset to the country. Pakistan education system is not much advanced in education compared to the world but the hopefully HEC will succeed soon.

This study has been done on the students of Punjab group of college in the area of Chawinda to see how much satisfied they are with their institution. This study investigates the factors that affect student's satisfaction such as:

- To investigate the level of student satisfaction.

- To investigate the level of satisfaction with teaching methodology.

- To investigate The level of satisfaction with college environment.

The purpose of this study is to look at the student`s satisfaction in Pakistan`s education system of colleges. We can say that Pakistan, despite being a developing country , is trying to improve its education system.

2. Literature review

The students, who studied in Poland, Sojkin et al. (2012), met social environment and educational resources between main resources of student's fulfilment on higher education. On the other hand , the study in the USA gave the students realization of institutional capability to issue a good theoretical environment positively affect their level of satisfaction(Hartman and Schmidt, 1995). Wells and Daunt (2011) presented a visionary model where the physical surroundings of a HEI (which consist on layout and organised elements and common ambient elements) can mould the student's satisfaction as a result.

Mai (2005) learnt about the student`s vindication in upper level of study and also its effected factors. It is observed that over all influence of schools, factors of the quality of the education, teachers, and expertise have their interest in their subjects. The pure quality of IT and the importance of degree furthering student's career were the most important predicator of the satisfaction of students.

Same as Deshields et at (2005) used desire able model and Herzberg`s two factor theory to track out the willingness of the students in study. They looked that the teacher`s

working and classes were the main reason which show the quality of college experience of students which actually caused the reason of satisfaction.

Student satisfaction has important inference for teaching due to its bidirectional alliances with the student engagement and attainment (Pike, 1991).

Student satisfaction is key determinant of student's loyalty (Webb and Jagun, 1997), It is the loyalty which influences the positive affection and student collaboration towards their institutes during and after completion of their studies.

The academic performance of the students is affected because of several psychological, and social economic factors (Hijazi&Naqvi, 2006). It is always be of interest to compute student academic performance by the educators. It helps them to judge knowledge levels of students including efficacy of their own teaching activity, and thus provides a lot of student satisfaction (Martimsyan, Saxan, &Wanjohi, 2014).

The acknowledgement of students towards their college experience and recognized significance of the education that is received from their institute (Astin, 1993).

Yu and Deen,(2001) observed that both positive and negative emotions and empirical component of satisfaction associate with loyalty of students and that cognitive component of satisfaction act as better predictor than cognitive factor.

Performance check on pupils got remarked attention as the students of different thoughts have affected due to socio- economic, environmental and some psychological factors. Accordingly these aspects have deep effectuation which may vary by individuals and countries as well (Mushtaq& Nawaz khan, 2012).

According to, Elliot and Healy (2001), student satisfaction is a short- term attitude build on an assessment of their experience with the education service provided.

House (1999), assessed the effects of controlling for the characteristics of students on student satisfaction and completion of degree. The environmental variables assessed concluded

academic experiences he evaluated these environmental variables causes influence on student attainment and satisfaction.

3. Methodology

Study design:

This study was conducted on student satisfaction on 13, May, 2021. The purpose of the study was to examines that how an institute satisfy a student .For this purpose, responses were collected from students of Punjab group of colleges Chawinda campus, Punjab, Pakistan .The population Punjab group of colleges Chawinda campus were consists 1500 students in figures involved in this study.

A questionnaire was used to obtain information from the respondents. The sample size was consisted of 70 students from different disciplines. For this research, stratified random sampling method was used to select respondents. The overall population of Punjab group of colleges Chawinda was 1500 from which 70 students were selected. As we know that stratified random sampling is a statistical measurement tool use to divides the population into sub-groups based on similar characteristics. The stratified random sampling divides the population of college into six strata. These strata of the students from Medical, Engineering, Computer science, Commerce, Accounts, Bachelors in Sciences and Masters were divided using the formula of stratified random sampling :

$$n_i = n \frac{N_i}{N}$$

Data collection

A survey questionnaire was used to collect data. The data was collected from both female and male respondents from which 68.57% were female and 31.42% were male

respondents. The close ended questionnaire was developed for the collection of data .The questionnaire was consisted on four sections .Section 1, comprised of demographic information like age, gender, department, degree, father`s income, guardian occupation. Section 2, was comprised of questions related to students satisfaction measured on the likert scale. Section 3, was consisted of questions related to college environment and the last section was comprised of questions related to teaching methodology also measured using likert scale. The most important thing is rating scale used to measure the responses of students. The rating scale measured responses of students contained 5-ponit likert scale of 1 to 5 where 1, is strongly disagree,2 is disagree,3 is neutral,4 is agree and 5 is strongly agree. Respondents were asked to mark the respected scale according to their opinion for each question. The questionnaire was filled by respondents using only the Hard copy of questionnaire.

Factors and statements

The study included three factors namely: teaching methodology, college environment, and students satisfaction .Following are the details of these factors:

- The first factor student satisfaction included nine questions related to syllabus coverage, proper communication, teacher`s behaviour, study schedule, fee concession and teachers education.

- The second factor college environment also included nine questions related to electricity, proper security; air conditioned rooms, and proper cafeteria.

- The third factor teaching methodology included ten questions related to teacher's method, behaviour, understanding, level of knowledge, motivational lectures, interaction with students, and discipline in the class.

    To know profile of the respondent's demographic questions were asked. The demographic information included age, gender, area, degree and father`s income. There

were 70 respondents which were asked about their gender from which 68.6% and 31.4%
were male and female, respectively and 71.4% respondents from urban area 28.6% from
rural. Another demographic question was asked about the degree of the respondents from
which 21.4% from f.sc (Med), 20% from f.sc(E.ng) , 17.1% from Ics, 12.9% from
i.com,7.1% from b.com, 2.9% from BS, and 18.6% from M.com degree.

Table A1 shows the descriptive statistics of study variables that involved in
theoretical model. Average of the students for the factor of students satisfaction results
agree on 4.0 with standard deviation 0.612 that shows on average the students were
agreed on the statements of this factor. Moreover, average of the students respond agree
to the factor of college environment 4.7 and standard deviation 0.79. In addition, average
of the students respond on the teaching methodology 3.8 and standard deviation 0.82 that
shows on average the students were neutral on the statements about teaching methods.
The average age of students was eighteen year (18) and their guardian's income was
54000.

Table: A1   Descriptive statistics of study variables

Variable/Factor	Mean	Standard Deviation
Student satisfaction	4.0	0.612
Environment	4.7	0.79
Teaching methods	3.8	0.82
Age	18.9	1.99
Income	54000	60662.29

4. Results

Table A2 shows the results of correlation analysis for the study variables. Student
satisfaction has the perfect positive relationship with college environment and teaching

methodology of the faculty. Environment has also the perfect positive relationship with student satisfaction and teaching methodology means that if the environment of college better than the student's satisfaction also better as linearly.

Table: A2   Correlation Analysis

Pearson correlation	Student Satisfaction	Environment	Teaching Method
Student Satisfaction	1	0.613	0.683
Environment	0.613	1	0.712
Teaching Method	0.683	0.712	1

In table A3, multiple linear regressions perform to check how much the independent variables were affect to the dependent variable. The results of analysis show that the model significantly fitted. The regression coefficients in table A3 presents the degree of affection for student satisfaction. Result of b for college environment 0.202 which means that if EN increases as 0.2 units than the SS will also increase as linearly. TM result of b 0.428 that show if 0.4 unit increases in the teaching methodology than the student satisfaction also increase in same unit.

Table: A3   Regression Analysis

Model	R	R square	Adj. R square	Std. Error
	0.706	0.499	0.484	0.429

Table: A4   Regression Coefficients

|	B	Std. error	T	Sig.
Constant	.986	.291	3.389	.001
EN	.202	.097	2.095	.040
TM	.428	.106	4.051	.000

Table A5 show the results of analysis of variance (ANOVA) in which the mean difference of the study variables observed. The value of F statistics is greater than the F table value so the results are significant. The conclusion of ANOVA that the null hypothesis rejected and the means were significantly different.
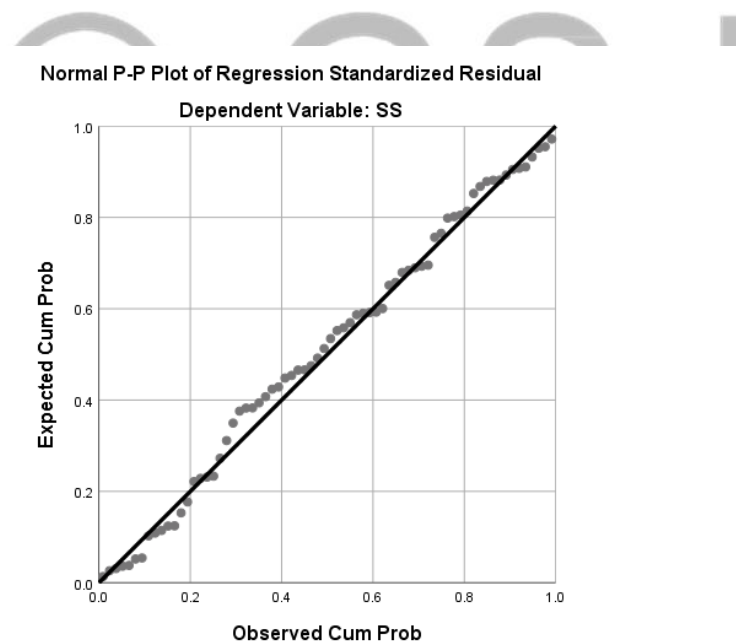
Table: A5   Analysis of Variance

SOV	SS	DF	MS	F	Sig.
Regression	12.267	2	6.134	33.367	.000
Residual	12.316	67	.184		
Total	24.584	69			

Graph 1 histogram and Graph 2 pp plot show that the data that collected were approximately follow the normal distribution. For the regression analysis data must follow the assumptions of normality. So in pp plot show that all the values scattered with the linear line which means used data follow the normal distribution.

Graph: 1   Histogram

Histogram
Dependent Variable: SS

Mean = -9.37E-17
Std. Dev. = 0.985
N = 70
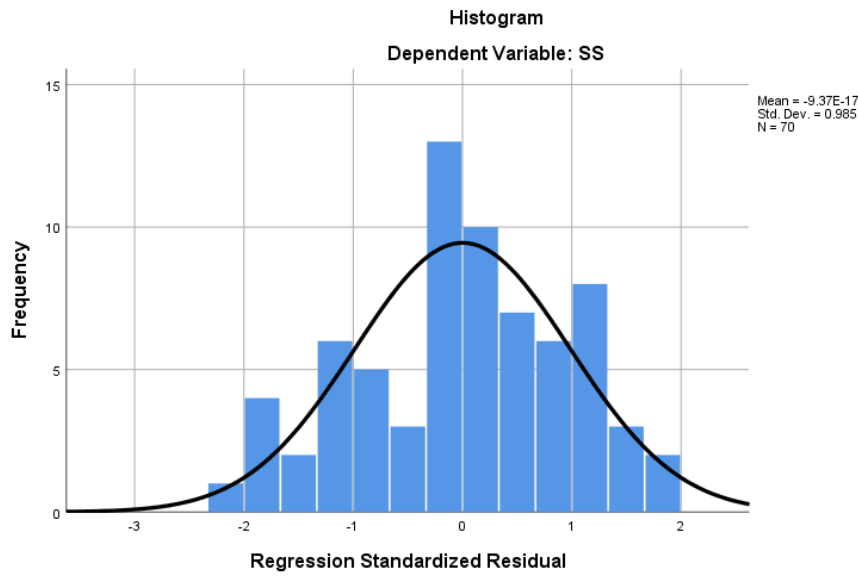
Graph: 2   Normal probabilities plotting of Regression Residual

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: SS

5. Conclusions, Recommendations

In conclusion this study provides the evidence for a positive relationship of College

environment and Teaching methodology with student satisfaction. Between the

environment of the college and Teaching methodology of instructors, the variable teaching method much affected to the student satisfaction. Both independent variables have the perfect positive relationship with the dependent variable student satisfaction. Firstly this study involved all the factors in the model that were discussed above. Teaching methodology is the main factor for the college students to complete their degree. As the result of this study, if teaching method improves than the students must be much satisfied.

- Student's satisfaction increase when the college environment much secured and cleaned.

- Students satisfaction much better when the teaching method simple to understand.

- Students should follow their study plan easily when their syllabus covered on time.

- Students should motivate as positively when their teacher give the easy form of solution for the complex concepts.

References

1. Petruzzellis, L., & Romanazzi, S. (2010). Educational value: how students choose university. International journal of educational management.

2. Fernandes, C. (2004). The Fiction Of Alice Munro: A Study (Doctoral dissertation, Goa University).

3. Guo, S. (2005). Exploring current issues in teacher education in China. Alberta Journal of Educational Research, 51(1).

4. Sutherland, D., Warwick, P., Anderson, J., & Learmonth, M. (2018). how do quality of teaching, assessment, and feedback drive undergraduate course satisfaction in UK business schools? A comparative analysis with nonbusiness

school courses using the UK national student survey. Journal of Management Education, 42(5), 618-649.

5. Kuh, G. D. (2009). What student affairs professionals need to know about student engagement. Journal of college student development, 50(6), 683-706.

6. Mushtaq, I., & Khan, S. N. (2012). Factors affecting Studentsâ€™ academic performance. Global journal of management and business research, 12(9).

7. Mushtaq, I., & Khan, S. N. (2012). Factors affecting Studentsâ€™ academic performance. Global journal of management and business research, 12(9).

8. Hurtado, S., Clayton-Pedersen, A. R., Allen, W. R., & Milem, J. F. (1998). Enhancing campus climates for racial/ethnic diversity: Educational policy and practice. The Review of Higher Education, 21(3), 279-302.

9. White, C. J. (2006). Towards an understanding of the relationship between mood, emotions, service quality and customer loyalty intentions. The Service Industries Journal, 26(8), 837-847.

10. Weerasinghe, I. S., & Fernando, R. L. (2017). Students' satisfaction in higher education. American journal of educational research, 5(5), 533-539.

11. Thurmond, V. A., Wambach, K., Connors, H. R., & Frey, B. B. (2002). Evaluation of student satisfaction: Determining the impact of a web-based environment by controlling for student characteristics. The American journal of distance education, 16(3), 169-190.

12. Dhaqane, M. K., & Afrah, N. A. (2016). Satisfaction of Students and Academic Performance in Benadir University. Journal of Education and Practice, 7(24), 59-63.

13. Siegel, D. S., Westhead, P., & Wright, M. (2003). Science parks and the performance of new technology-based firms: a review of recent UK evidence and an agenda for future research. Small business economics, 20(2), 177-184.

14. Khurshid, N., & Khurshid, J. (2021). Study on service quality and student satisfaction: the competitive dimension of the physical infrastructure of Pakistani universities. Ilkogretim Online, 20(1).

15. Sinclaire, J. K. (2014). An empirical investigation of student satisfaction with college courses. Research in Higher Education Journal, 22.

16. Fen, Y. S., & Sabaruddin, N. A. (2008). An extended model of theory of planned behaviour in predicting exercise intention. International Business Research, 1(4), 108-122.

17. Gruber, T., Fuß, S., Voss, R., & Gläser-Zikuda, M. (2010). Examining student satisfaction with higher education services: Using a new measurement tool. International Journal of Public Sector Management.

18. Pedro, E., Mendes, L., & Lourenço, L. (2018). PERCEIVED SERVICE QUALITY AND STUDENT'S SATISFACTION IN HIGHER EDUCATION: THE INFLUENCE OF TEACHING METHODS. International Journal for Quality Research, 12(1).

19. Lin, L., Huang, Z., Othman, B., & Luo, Y. (2020). Let's make it better: An updated model interpreting international student satisfaction in China based on PLS-SEM approach. Plos one, 15(7), e0233546.

20. Ratner, C. (1997). Cultural psychology and qualitative methodology: Theoretical and empirical considerations. Springer Science & Business Media.