

Impact of Teachers' Satisfaction on Students' Satisfaction in Management Sciences

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Abstract

Objective: This research examined the effect of teachers' satisfaction level of public sector universities on student satisfaction.

Method: Requisite data were collected through self-administered questionnaire, from 100 teachers and 100 students of 5 public sector universities selected on the basis of simple random sampling.

Results: The study first determined teachers' satisfaction on the basis of three dimensions of their job including teaching, supervision and stress. Teaching was found insignificant determinant of teacher satisfaction whereas stress was significantly and negatively related to teacher satisfaction and supervision was significantly and positively related to teacher satisfaction. The study then determined the students' satisfaction on the basis of active teaching, learning activities and assessment framework. Active teaching was found insignificant determinant of student satisfaction whereas learning activities and assessment framework both significantly contributed towards student satisfaction. Finally, the impact of teachers' satisfaction was examined on student satisfaction concluding positive and significant relationship between the two at 0.01 level of significance.

Conclusion: The university administration should make strategies to reduce the teachers' work stress and create conducive work environment making them instrumental in students' satisfaction by providing them quality services.

Key words: Supervision; Stress; Learning; Assessment

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Introduction

Education institutes are making high efforts to improve the service quality through competent teachers imparting quality education. Academic staff of higher education institutes is playing an important role in accomplishing the institute's objective (Capelleras, 2005). Teacher's satisfaction in higher education is considered to be a matter of vital concern. If academicians are satisfied with their jobs then they stay in the institute making it effective (Noordin & Jusoff, 2009). Satisfied and committed teachers make students learn more effectively. On the other hand, students have their main focus on the quality of learning they receive from their institutes. Students are said to be satisfied when the universities fulfill their learning needs due to which they achieve higher grades (Elliott & Healy, 2001; Bean & Bradley, 1986).

It is important to note that teaching is a stressful profession especially in public sector universities. Teachers really work hard in order to enable student learn and feel satisfied. However, large number of students in single class results in dissatisfaction of students and teachers. Thus, teachers shift from public to private sector universities frequently or they seek other jobs in Pakistan as well as abroad for better opportunities and career growth. Quality supervision, nature of work and salary are important predictors of organizational commitment (Malik et al., 2010). Ssesanga and Garrett (2005) observe that teachers are not given proper promotions and reward, and quality of teaching is underestimated, while the success of the institute and efficiency is in the hands of contented and committed faculty members (Nawab & Bhatti, 2011). Similarly, Douglas et al., (2006) point out that student gives importance to teaching and learning factors including teaching ability of teachers, lectures and handouts. Students seek quality education and system excellence that can equip them with all potentials needed to become a successful educated personality.

Teachers play an important role in students' learning. Lyons and Akroyd (2013) emphasize that teachers wish to be rewarded and treated fairly and supported adequately because of their crucial role in student learning. It is therefore, inferred that satisfied and well supported teachers can enhance the satisfaction level of students. The satisfaction level of students with various service quality factors has been investigated (Douglas et al., 2006), however, literature is deficient in research on correlation of teacher satisfaction and student satisfaction. Thus, it is important to examine the association between teachers' satisfaction and students' satisfaction, if there is any. The current research is, therefore, undertaken to study the impact of teacher satisfaction on student satisfaction.

This research study is planned to first examine the determinants of teacher satisfaction including teaching activity, supervision and stress. Then this study investigates the determinants of students' satisfaction including components of teachers' behavior such as learning activities, assessment framework and active teaching. Finally the correlation between the results of the two satisfaction models i.e. teacher satisfaction and student satisfaction is explored. Further the impact of teachers' satisfaction on student satisfaction is examined achieving the ultimate aim of this research.

Research Objective

The following objectives are formulated for the purpose of this study.

1. To examine the effect of Teaching on Teacher Satisfaction
2. To examine the effect of Supervision on Teacher Satisfaction
3. To examine the effect of Stress on Teacher Satisfaction
4. To examine the effect of Active Teaching on Student Satisfaction
5. To examine the effect of Learning Activities on Student Satisfaction
6. To examine the effect of Assessment Framework on Student Satisfaction
7. To examine the effect of Teacher Satisfaction on Student Satisfaction

Significance of the Study

Teacher satisfaction and student satisfaction are not new concepts. Teacher job satisfaction and student satisfaction have been widely investigated independently. Teacher satisfaction has been studied with job satisfaction predictors and with general school and university level satisfaction. Likewise, student satisfaction has also been studied with service quality and with external factors. However, the association between these two is yet to be fully explored. The current research intends to explore the possible relationship between these two i.e. teacher satisfaction and student satisfaction merging them in one model. Therefore, the current study would prove a worthwhile addition to the existing literature in higher education.

The study is also practically significant. It would help universities to take measures for enhancing the satisfaction level of their teachers and students at the same time. It would guide university management and policy makers to design and plan effective human resource strategies for better service quality and efficiency in the university. Ultimately students would be satisfied from better quality benefiting the society as a whole.

Study Plan

Rest of the paper comprises five sections. The next section reviews the existing literature, identifies the research gap, develop theoretical framework and formulate hypotheses. Section 3 gives detail of research methodology, population and sample, definition and measurement of variables, and data collection methods. Section 4 explains the demographics of the respondents and section 5 presents results and discussion covering statistical results and hypothesis testing. Section 6 concludes the study and gives recommendations.

Literature Review and Theoretical Framework

Teacher Satisfaction

Michaelowa & Wittmann (2007) point out that extremely satisfied teachers (with their job) develop more positive association with students and help them out to attain higher results. Job satisfaction is associated with environmental, physiological and psychological factors (Hoppock, 1935) as well as fulfillment of employees' needs and values (Locke, 1976; Kerego & Muthupha, 1997). Tian et al., (2013) observes that teachers' attitude towards career, working conditions, social status and work itself influence their quality of teaching. Teachers are found satisfied with the offerings equivalent to their demands (Zambylas & Papanastasiou, 2004). Kusku (2001) concludes that institutional fulfillment and professional satisfaction has positive impact on general level of job satisfaction of teachers.

Houston et al., (2006) found teachers less satisfied with extrinsic rewards and more satisfied with intrinsic features such as responsibility, flexibility and job variety. Chen et al., (2006) identified different factors responsible for teacher satisfaction such as respect, pay and benefits, organization's vision, management system, work environment, result feedback and motivation. Malik et al., (2010) found teachers much satisfied with coworkers, work itself, supervision, advancement opportunities and compensation. Toker (2011) measures academician's satisfaction level with some facets such as 'nature of work, extrinsic job satisfaction, intrinsic factor and physical satisfaction'. It is observed that some factors including absenteeism, job performance, managerial support, turnover, burnout and stress, are missing. However, the study under review attempts to fulfill the gap by measuring teacher satisfaction with stress also. Toker (2011) observes that satisfaction level varies with academic titles. Professors have high level of satisfaction with researchers and instructors. Amzat and Idris (2011) measure teacher satisfaction with security, recognition, colleagues, advancement, salary, supervision, responsibility, work itself and working condition. Ssesanga and Garrett (2005) found academicians highly satisfied with intrinsic factors related to teaching like student's interest in courses and freedom of content taught, while

instructional materials are found responsible for teachers' dissatisfaction. However, teachers are not satisfied with teaching requirements (Chen et al., 2006).

Several studies measure job satisfaction of teachers with supervision (Koustelios, 2001; Ssesanga & Garrett, 2005; Malik et al., 2010; Toker, 2011; Amzat & Idris, 2011). Satisfaction with supervision means attention received from the supervisor which can affect job satisfaction. Path goal theory proposed a strong association between leadership support and job satisfaction (Jeon et al. 2012). Quality of supervision is observed as an important predictor of organizational commitment (Malik et al., 2010). Teacher feel committed towards their job when they are satisfied with their supervision (Chughtai & Zafar, 2006). Though Toker (2011) concludes that supervision (technical and human) has the lowest satisfaction mean scores, but Adebayo and Gombakomba (2013) mention supervision as one of the major factors affecting teacher satisfaction. Job satisfaction of teachers and supervision are found significantly related to each other (Malik et al., 2010; Shah et al., 2012; Saif et al., 2012).

Job stress occurs due to supervisors and employer's pressure, lack of recognition, unfair appraisal systems, workloads, dissatisfaction with rewards and salary, lack of communication and bad working conditions (Javeed, 2012). According to Kayastha & Kayastha (2012) stress is created due to relationship and interaction of teachers with their students and with external pressures. Azman (2009) observes that physiological stress contributed towards increase in job satisfaction and psychological stress does not contribute towards decrease in job satisfaction. Further, occupational stress increases job dissatisfaction. Kayastha and Kayastha (2012) found that occupational stress is significantly related to job satisfaction. Høigaard et al., (2011) observes that 25 percent university teachers found teaching a stressful profession but they have a keen interest in it. However, Usman et al., (2013) concludes that stress has no significant relationship with teacher job satisfaction.

Student Satisfaction

Student satisfaction depends on assessment of their experiences related to their education (Oliver & DeSarbo, 1989). Students in higher education search for quality and excellence to make them educated and esteemed personality (Misanew & Tadesse, 2013). Students are said to be satisfied when the services they receive fulfills their expectations or go beyond their expectations making them more loyal and excellent achievers. Thus, their desire for studies enhances if universities provide them facilities including good quality teaching, growth and learning (Risch & Kleine, 2000; Elliott & Healy, 2001). Student satisfaction is found to have a great effect on creating the image of the institute (Juillerat & Schreiner, 2007). Service quality is found to be the most valuable facet of student satisfaction (Ahmed et al., 2010; Banwet & Datta, 2003).

Student satisfaction acquired renewed importance due to intensity of competition among the universities. The university administration needs to convince students by providing well-ordered learning environments facilitating academic success through enrolling and retaining students (Helgesen & Nettet, 2007), who communicate a positive picture of their university to other students (Farahmandian et al., 2013). Satisfaction level of students is important for universities desiring to attract new students (Thomas and Galambos, 2004). Spoooreen et al., (2007) point out that intellectual ability of teacher, feedback, unbiased student evaluation, professional development, organizational harmony and training are helpful to students. According to Elliott and Healy (2008) instructional effectiveness, campus climate and student centeredness have strong effect on overall student satisfaction. According to Malik et al., (2010), several dimensions of service quality influence student satisfaction. Student's spirit lies in learning surroundings and teaching excellence of university as they need qualified and experienced teachers for their professional and intellectual growth. They conclude that teaching in a friendly manner and course understandings are major components of good university environment. Ali et al., (2009) observe that teaching behaviors have great impact on student's learning and proved that assessment factor has a strong hold on teaching - learning processes.

Quality of teaching is found the most effective factor with positive impact on students' satisfaction in universities (Farahmandian et al., 2013). Students are satisfied with teaching services and perceived it as of high quality when lecturers take effective tutorials, give proper feedback, communicate properly, and maintain friendly environment in the class (Banwet & Datta, 2003; Hill et al., 2003). According to Banwet & Datta (2003) students recognize quality of service in receiving effective lectures imparting knowledge through learning experiences, accessibility of reading materials and notes, teachers' concern for students and timely feedback on assignments. Teacher's comments on assignments and teacher - student association in the classroom are also associated with quality of teaching for students' satisfaction (Hill et al., 2003). Therefore, the study under review intends to measure students' satisfaction with teaching related factors only including active teaching, learning activities and assessment framework adopted from the study of Ali et al., (2009).

Some academics criticize the quality of teaching in Pakistan as old-fashioned teaching and learning methods, traditional evaluation methods like rote learning and most of the class time consumed by teachers talking other than for learning purpose (Hood bhoj, 2005; Malik, 2006; Siddiqui, 2006). Most of the students of Pakistani universities are actually not satisfied with such methods and behavior of teachers (Ali, 2005). Therefore, the current research is planned to observe the relationship between students' satisfaction and teachers' teaching behavior. Further it investigates the association between teachers' satisfaction and student satisfaction, if there is any.

Research Gap

The review of literature reflects the relationship between human resource practices and job satisfaction of teachers as well as association between stress and satisfaction level of teachers with their jobs (Usman et al., 2013). However, the literature is found lacking in studying stress, supervision and teaching together. The current research intends to examine the relationship of stress, supervision and teaching with teacher satisfaction.

Similarly many studies discussed student's satisfaction with university services, service quality and with lecturer competence (Douglas et al., 2006; Athiyaman, 1997; Elliott & Healy, 2008; Maddox & Nicholson, 2008; Ali et al., 2009; Gruber et al., 2010; Malik et al., 2010), but none of the previous research investigates the relationship between student satisfaction and teacher satisfaction particularly in Pakistani public sector universities. Most studies are conducted either on student or teacher satisfaction. However, a strong association is found between students' satisfaction and positive teachers' actions (Marzo-Navarro et al., 2005). Further, the provision of supportive environment enables teachers to make students satisfied by giving them quality services and fulfilling their needs (Ahmed et al., 2014). Therefore, the current research attempts to investigate the effects of teachers' satisfaction on students' satisfaction fulfilling an important gap in literature and acquiring a paramount significance.

Theoretical Framework

Figure 1 presents the theoretical framework derived from the literature review. The proposed framework combine teacher satisfaction and student satisfaction in one model, probably for the first time. Teacher satisfaction is measured through job related facets including teaching, stress and supervision. Stress is adopted along with its scale from Ismail (2009); Usman, Akbar & Ramzan, (2013); and Kayastha & Kayastha, (2012). Supervision is adopted from Adebayo and Gombakomba (2013); Malik et al., (2010); Shah et al., (2012); Saif et al., (2012). Teaching dimension in the model is based on the studies of Ssesanga and Garrett (2005) and Houston et al., (2006). However, contrary to the previous studies, effects of all the three variables are examined together on teacher satisfaction in a single model in the current research. Student satisfaction is measured with teaching behavior predictors such as active teaching, learning activities and assessment framework derived from Ali et al., (2009). Eventually the model

examines the effect of teacher satisfaction on student satisfaction, an area, which remained overlooked in previous studies.

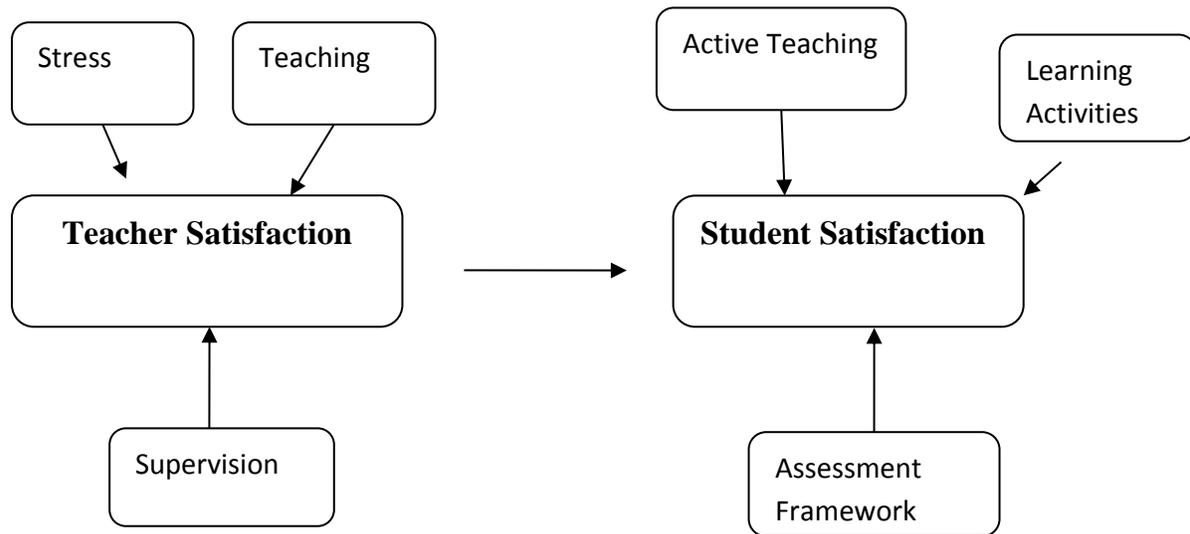


Figure 1. Theoretical Framework

Hypotheses Development

The following hypotheses are formulated for testing the proposed relationship among the variables of the study.

- H₁: Teaching significantly affects Teacher Satisfaction.
- H₂: Supervision significantly affects Teacher Satisfaction.
- H₃: Stress is negatively and significantly related to Teacher Satisfaction.
- H₄: Active Teaching significantly affects Student Satisfaction.
- H₅: Learning Activities significantly affects Student Satisfaction.
- H₆: Assessment Framework significantly affects Student Satisfaction.
- H₇: Teacher Satisfaction has a significantly positive impact on Student Satisfaction.

Method

This section describes the purpose of the study, population, sample, data sources and data collection methods.

Definition of Variables and Measurement of Variables

Teacher Satisfaction

The teacher satisfaction is measured in terms of three dimensions including teaching, supervision and stress. Each of the dimensions is measured through a set of questions included in the questionnaire. Teaching is considered as one of the most predictive construct of teacher satisfaction (Ssesanga & Garrett, 2005) and is measured through set of 5 questions. Similarly, supervision is measured through set of 3 items in the questionnaire adopted from Adebayo & Gombakomba (2013). Stress is the third dimension used to measure teacher satisfaction. It is measured through set of 5 items in the questionnaire. Further a set of 6 questions is included in the questionnaire to measure the general level of teacher satisfaction. A five-point Likert scale is used in the questionnaire.

Student Satisfaction

Three constructs including active teaching, learning activities and assessment framework, adopted from Ali et al., (2009) are used to examine student satisfaction. The questionnaire on student satisfaction comprises 20 items including 8 items for active teaching, 4 items for learning activities, 3 items for

assessment framework and a set of 5 general questions on student satisfaction. Ali et al., (2009) used four-point Likert scale but the current study uses five-point Likert scale including a neutral response in such scale (Pallant, 2010).

Study Population and Sample

Teachers and students of *Management Sciences* in public sector universities of Rawalpindi and Islamabad constitute the population of the present study. There are about 15 public sector degree awarding institution and universities in the twin cities (Higher Education Commission, 2012). Lecturers, assistant professors, and professors' level of teachers are included in current research.

Five public sector universities including Quaid-I-Azam University (QAU), International Islamic university (IIUI), Fatima Jinnah Women University (FJWU), Arid Agriculture University Rawalpindi, and National University of Modern Languages (NUML) comprised sample for current study. After selection of the five universities a simple random sampling technique was used in selection of teachers and students. The researcher used to visit the respective campus on regular working days and deliver the questionnaire to teachers and students randomly. About 150 questionnaires were distributed among teachers of the above-mentioned universities in which only 100 were received back at a response rate of 66.6 %. Similarly, 100 questionnaires were distributed among students and all were received back at 100% response rate. The response rate is considered good (Sekeran, 2003) and the sample size of 200 is enough (Thomas, 2004).

Data Sources and Data Collection Methods

Primary data was collected from teachers and students of the selected universities through two structured and self-administered questionnaires for this study. Secondary data sources were also explored in literature review in order to develop the theoretical model of the study.

Teacher and student satisfaction survey were conducted through two different questionnaires. First questionnaire included dimensions of job satisfaction to measure teacher satisfaction including teaching, supervision and stress. Second questionnaire intended to measure student satisfaction with the help of three dimensions such as active teaching, learning activities and assessment frame work.

5- Points Likert scale was used in both questionnaires ranging from strongly disagree to strongly agree (Maddox & Nicholson, 2008; Gruber et al., 2010). 5-point Likert scale is considered better than 7, 9 or any other increased point Likert scale, which does not increase reliability of the scale (Elmore & Beggs, 1975).

Teacher satisfaction questionnaire included 19 items, partially adopted from Ssesanga and Garrett (2005) and Adebayo and Gombakomba (2013). Student satisfaction questionnaire comprised teacher behavior scale adopted from Ali et al., (2009) with prior permission from the author. Student Questionnaire included 21 questions.

Statistical Techniques

Regression and correlation test were used to observe the association between variables of the study. Statistical Package for the Social Sciences (SPSS) 15th Edition is used for the analysis.

Findings

Respondents' Profile

Teachers' Profile: Table 1 shows the respondents' profile of Teachers sample. A total of 100 teachers including 58 lecturers, 24 assistant professor, 12 professors and 6 others, responded positively to the survey. Age-wise 37 teachers belonged to 25 -30 years age bracket, 33 belonged to 31-35 age bracket, 14 belonged to 36 – 40 age brackets, 12 belonged to 41 – 45 age bracket and only 4 belonged to 46 or above age bracket. Similarly, 66 teachers were male and 34 were female. 39 percent of the respondents had an experience of 5 or less years, 42 percent had an experience of 6 – 10 years, 17 percent had an experience of 11-15 years and only 2 percent had an experience of 16-20 years of job. Similarly, 10

teachers held master degree, 64 teachers held MPhil qualification and 24 teachers were PhD qualified. According to the policy of higher education commission of Pakistan, it is now mandatory for every teacher to complete his or her MPhil degree to teach in a university leading to an increased number of MPhil qualified teachers. The PhD also included those teachers who were in the final stages of completion of their PhD qualification.

Table 1. Respondents' (Teachers) Profile Summary

Demographics	Frequency	Percentage (%)
Age		
25-30	37	37.0
31-35	33	33.0
36-40	14	14.0
41-45	12	12.0
46 or above	4	4.0
Total	100	100.0
Gender		
Male	66	66
Female	34	34
Total	100	100
Job experience		
5 or less	39	39.0
6-10	42	42.0
11-15	17	17.0
16-20	2	2.0
Total	100	100.0
Qualification		
Master	10	10.0
MPhil	64	64.0
PhD	24	24.0
Other	2	2.0
Total	100	100.0
Designation		
Lecturer	58	58.0
Assistant Professor	24	24.0
Professor	12	12.0
Other	6	6.0
Total	100	100

N = 100

Students' Profile: Table 2 shows the respondents' profile of Students' sample. A total of 100 students including 59 male and 41 female, responded to the survey. 2 percent of the students belonged to 17 – 20 years age group, 78 percent belonged to 21 – 24 years age group and 2 percent students belonged to an age group of more than 24 years. Majority fall in the second category because university student's average age is between 21 to 24 years and most of them were in their Master degree programme. Precisely 14 students were from undergraduate, 78 from Master and 8 were from postgraduate degree programme.

Table 2. Respondents' (Student) Profile Summary

Demographics	Frequency	Percentage (%)
Age		
17-20	2	2.0
21-24	78	78.0
>24	20	20.0
Total	100.0	100.0
Gender		
Male	59	59.0
Female	41	41.0
Total	100	100.0
Level of Education		
Graduate	14	14.0
Masters	78	78.0
Postgraduate\	8	8.0
Total	100	100

N=100

Teacher Satisfaction Model

The following model was applied to observe the impact of independent variables on dependent variable.

$$\text{Teacher Satisfaction} = \alpha + \beta_1 * \text{Teaching} + \beta_2 * \text{Supervision} + \beta_3 * \text{Stress} + \varepsilon$$

Table 3 shows the model summary of regression for teaching, supervision, and stress, as independent variables, and teacher satisfaction as dependent variable. The value of R square value is .209 and adjusted R square is .185 which means that almost 21% variance in teacher satisfaction is occurred due to the independent variables.

Table 3. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458	.209	.185	.19131

The ANOVA output given in table 4 verifies the fitness of regression model for teacher satisfaction explaining the effect of the predictors on the dependent variable at 0.01 level of significance.

Table 4. ANOVA Summary

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.931	3	.310	8.480	.000(a)
	Residual	3.513	96	.037		
	Total	4.444	99			

Table 5 gives the summary of coefficients indicating change in the value of teacher satisfaction (dependent variable) due to change in independent variables including teaching, supervision and stress. Stress is observed to have significant negative effect of -0.494 on teacher satisfaction. This result is found in conformity with the findings of (Kayastha & Kayastha, 2012), but the findings are in contradictions with Akbar & Ramzan (2013) who found no significant relationship between stress and

teacher satisfaction. Supervision is found to have significant positive effect of 0.450 on teacher satisfaction, at 0.01 level of significance. Jamal et al., (2012) and Adebayo and Gombakomba (2013) also found supervision significantly associated with teacher job satisfaction. The effect of teaching on teacher satisfaction is however insignificant at 0.05 level of significance. However, Ssesanga and Garrett (2005) found teaching an important factor of teacher satisfaction.

Table 5. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	3.154	.323		9.768	.000
	Teaching	-.142	.113	-.184	-1.256	.212
	Supervision	.297	.103	.450	2.877	.005
	Stress	-.421	.087	-.494	-4.831	.000

Student Satisfaction Model

The following model is applied to observe the impact of independent variables on dependent variable.

$$\text{Students Satisfaction} = \alpha + \beta_1 * \text{Active Teaching} + \beta_2 * \text{Learning Activities} + \beta_3 * \text{Assessment framework} + \varepsilon$$

Table 6 shows the model summary of regression for active teaching, learning activities and assessment framework, as independent variables, student satisfaction as dependent variable. The value of R square value is .451 and adjusted R square is .434 which means that almost 45% variance in student satisfaction is occurred due to the given independent variables.

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671	.451	.434	.27486

Table 7 illustrates the fitness of the regression model on the basis of ANOVA for examining the effects of the stated factors on Student satisfaction at 0.01 level of significance.

Table 7. ANOVA Summary

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.954	3	1.985	26.268	.000(a)
	Residual	7.253	96	.076		
	Total	13.206	99			

a Predictors: (Constant), Assessment Framework, Active teaching, Learning activities

Table 8 gives the summary of coefficients indicating change in the value of student satisfaction (dependent variable) due to change in independent variables including active teaching, learning activities, and assessment framework. Learning activities and assessment framework are found significantly affecting student satisfaction at 0.01 level of significance. Active teaching is, however, found significantly affecting student satisfaction at 0.05 level of significance. This result is found matching with the findings of (Arambewela & Hall, 2009). Previous research also observed significant results of student satisfaction with quality of teaching including use of effective methods in class, handling lectures

effectively and proper feedback on performance of student (Elliott & Healy, 2001; Letcher & Neves, 2010; Farahmandian et al., 2013).

Table 8. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	1.321	.172		7.701	.000
	Active Teaching	-.239	.094	-.215	-2.544	.013
	Learning Activities	1.035	.156	1.231	6.645	.000
	Assessment framework	-.436	.132	-.595	-3.304	.001

Relationship between Teacher Satisfaction and Student Satisfaction

The study under review primarily intended to examine the relationship between teacher satisfaction and student satisfaction and to investigate whether teacher satisfaction has any effect on student satisfaction or not.

Correlation Analysis

Table 9 reflects a significant positive correlation between teacher satisfaction and student satisfaction of 0.592 at a significance level of 0.000. It means when teacher satisfaction increases, student's satisfactions also increases or vice versa.

Table 9. Correlation Analysis between Teacher Satisfaction and Student Satisfaction

Variables	Teacher satisfaction
Student satisfaction	.592**

**Correlation is significant at 0.01 level (2-tailed)

Regression Analysis

The following model is applied to observe the impact of independent variables on dependent variable.

$$\text{Students Satisfaction} = \alpha + \beta * \text{Teacher Satisfaction} + \varepsilon$$

Table 10 shows the model summary of regression between teacher satisfaction as independent variable and student satisfaction as dependent variable with R square value of 0.350, and adjusted R square value of 0.343, which means that almost 35% variance in student satisfaction is caused by teacher satisfaction.

Table 10. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.592	.350	.343	.29476

Table 11 verifies the fitness of model on the basis of ANOVA output at a 0.01 significance level. It illustrates that the model explains well the effects of the independent variable on dependent variable at a significance level of 0.01.

Table 11. ANOVA Summary

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.585	1	4.585	52.772	.000
	Residual	8.515	98	.087		
	Total	13.100	99			

Table 12 shows that teacher satisfaction significantly and positively affects student satisfaction at 0.01 level of significance with a p-value of 0.000, confirming that if teachers are satisfied this would have a positive effect on the satisfaction level of students. Ahmed et al., (2014) also highlighted that in supportive university environment, teachers make students satisfy through providing quality services including imparting them knowledge more effectively. Voss (2009) emphasizes that teacher's response towards students is the primary factor to enhance student's satisfaction.

Table 12. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	-.906	.364		-2.492	.014
	Teacher Satisfaction	.966	.133	.592	7.264	.000

Conclusion and Discussion

The current research was primarily initiated to examine the relationship between teacher and student satisfaction. For this purpose, the study was divided into three parts. First part identified the determinants of teacher satisfaction comprising three components taken as independent variables including teaching, supervision, and stress. The second part investigated student satisfaction with the help of three independent variables including active teaching, learning activities, and assessment framework. The third part focused on the primary aim of the study to find out the association between of the teacher and student satisfaction, if there was any. For this purpose, initially correlation test was applied on the two variables i.e. teacher satisfaction and student satisfaction. The results proved a significant and positive association between teacher satisfaction and student satisfaction at 0.01 level of significance. The study further tested the impact of teacher satisfaction on student satisfaction applying linear regression model. The results verified that teacher satisfaction has a significant positive impact on student satisfaction at 0.01 level of significance. The association between teacher and student satisfaction was not studied previously, particularly in the context of Pakistan. Therefore, this research may prove a valuable contribution to the body of knowledge in business education.

It is observed that stress level needs to be low for teachers' satisfaction. Thus, the university administration should make strategies to reduce the teachers' work stress and create conducive work environment making them instrumental in students' satisfaction by providing them quality services. It is one of the drawbacks of public sector universities that they accommodate large number of students in one class. According to the current research most of the teachers felt that large class sizes makes them dissatisfied which affect their teaching. If large number of students is enrolled then university should divide them into two or more sections and arrange their schedule accordingly. In this way it may benefit both teachers and students. On the other hand, teachers should also focus on learning activities, and enhancing critical thinking of students. Secondly, teachers should assign fair grading to their students

and more focus should be on learning activities with in the class. The current study found that students' feel satisfied with focus on learning activities and fair evaluation.

Limitation and Future Research

Current research only focused on public sector universities of Rawalpindi and Islamabad but for better generalization future research may collect data from other cities of the country. A comparative study between public sector universities and private sector universities may be conducted on the same theme. The sample size of students and teachers may also be enhanced in future studies.

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